APPENDIX 1.0

STAKEHOLDER ENGAGEMENT

1.1	Notes of Meeting: Inception Meeting
1.2	Notes of Meeting: Technical Note 1
1.3	Technical Note 1
1.4	National Highways Comments on Technical Note (A)
1.5	National Highways Comments on Technical Note (B)
1.6	Technical Note 2
1.7	National Highways Comments on Technical Note 2
1.8	National Highways Comments on Leisure Use Trips
1.9	West Sussex County Council Comments on Leisure Use Trips
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1.11	Notes of Meeting: Technical Note 3
1.12	Technical Note 4

NOTE OF MEETING

Subject:	Shoreham Cement Works, Shoreham – Inception Meeting		
Location:	MS Teams		
Date:	14 July 2021	Time:	10:00 – 11:45
ADL Ref:	5201		

In Attendance:

Lucy Howard (LH)	-	South Downs NP
Alex Pringle (AP)	-	South Downs NP
Kevin Bown (KB)	-	Highways England
Derek Jones (DJ)	-	Highways England
Olamide Olayinka (OO)	-	West Sussex CC
Guy Parfect (GP)	-	West Sussex CC
Amol Pisal (ADP)	-	ADL Traffic
Andy Miles (AM)	-	ADL Traffic
Alex Painting (AEP)	-	ADL Traffic

Introduction to Project, SDNPA Objectives and Timescales

- LH - Shoreham huge potential for years and years.
- LH - Personal duty – conserve and enhance landscape – redevelop to regenerate to heal the scar on the landscape (first purpose)
- LH - Socio-economic – pursuant to purposes – regeneration with new development will heal.
- LH - Site allocated in Local Plan – high level policy
- LH -Commissioned transport study / other work heritage/biodiversity/contamination to support consultation beginning 2022.
- LH - All studies to talk to each other – coordinate – be flexible.
- Lucy Howard overall manager – AP go to for questions. Guy / Olamide – Technical Support.

The site

- LH -Brownfield site with extant permission that extends – 'Permission to do all sorts of things on the site?' Details in the Local Plan – High Level Policy – AAP to drill down and find the details and types and parameters of any planning application.
- ADP asked – for areas of existing buildings.
- LH – to provide areas for buildings.
- AP – advised that topo survey available. AP and LH to find this.

APPENDIX 1.1
NOTES OF MEETING:
INCEPTION MEETING

- KB – agrees that finding an agreed baseline use / traffic generation etc. Cannot claim existing use from multiple years ago, being a brownfield site – What is the traffic in reality?
- GP – 5 years as rule of thumb as permitted activity. If not within 5 years – disregard.
- GP – planning history to be picked up / reviewed? If accounting for some existing B2 use – legitimate but find most appropriate trip rate.
- KB – Same with Sui Generis. Certificates / Enforcement action from Council? What are commitments for this site?
- AP – Design and mitigation work – few guidance and policy docs – "Roads in the South Downs" provides opinions and approaches to highway design and associated furniture and clutter – items such as dark sky reserve (to be aware of).
- KB – Speed limit of A283?
- ADP – National Speed Limit. Proposing to undertake ATC surveys on the road to determine 85th percentile speeds.

Mobilisation, Data Collection

- GP – MOBILISATION – question for ADL? What do you need? How quickly can you get going?
- AP – School holidays soon. Surveys asap on two junctions. West Sussex how long to provide license agreement? Fast-track?
- GP – to contact colleague re: data collection. Attach to lamppost will take longer for license.
- DJ – Written scoping note to be provided?
- ADP – Hope bid document sufficient for scoping, however a formal scoping note can be provided.
- GP – methodology note would be required.
- AP – chat with South Downs to give HE sight of the bid document?
- ADP – can make start on reviewing / determining permitted and proposed traffic generation. Will use census data to determine trip distribution / compare against existing Council O-D data (2015).
- GP – 2015 O-D data may need formatting to be readable. Trip generation from zones, older strategic models – too old 10-12 years old? Census - High survey value but only covers one journey purpose – commuting higher average trip length than other journey purposes. Useful to use as proxy. Asked Kevin or other?
- AP – Additional weighting to leisure trips? Gateway entry points to a number of sites.
- KB – Combination of sources and see what it starts to tell us. New Monks Farm TA modelling would assist? Any other applications to provide trip distribution. Look at both ends.
- LH – Ikea withdrawn from New Monks Farm. BHCC own the site. – Please look at all modelling but be flexible due to other uses going in there.
- GP – advised New Monks Farm planning application. Have a look at the TA for that site – more general trip rates for consented A1 retail use to be established.

Trip Distribution

- GP – strategic models for longer distance routeing. HE look at sample routing from their strategic modelling and compare notes as HE's modelling in the area more up-to-date; although not suitable for direct use due to 3-hr peak period. But it is suitable for route choice for longer distance routes.
- GP – Going North – via A24 or A2037 or A23
- GP - Going East – most will be joining Shoreham Bypass; unless they are going to local destinations (such as Shoreham Harbour or Shoreham Town Centre) in which case, they would continue along the A283.
- GP - Going West (to Lancing / Worthing etc) will be using A27 despite congestion issues. Element relatively small, traffic going further afield - A27 through Worthing or A283 via Washington / Storrington down toward A27 using B-road through Amberley join A29 at Fontwell.
- GP – we can look at turning movements from previous turning movements / models etc for local destinations
- KB – to find out existing models in the locality.
- GP – model for last Lancing / Worthing improvement forecast modelling. Cavaet – covering average of 3 hour period – not same as peak but overall route choice okay.
- KB – Modelling – exchange of emails on what GP has, how recent, how useful. KB to do likewise. To form a model or spreadsheet composite model?
- ADP – when would the information be given to us.
- GP – to send email today and copy team.
- KB – to get hold of Nigel – know what data / models available next couple days.

Forecasting

- GP – Forecasting – New Monks Farm - In-principle assume A1 use, but not same trip rates used for Ikea. Forecast models that CC have will include the Adur local plan allocations under Shoreham Harbour joint AAP allocations. These are broadly right for commitment for housing in New Monks Farm. Office/employment development at Shoreham Airport has not come forward in detail yet. Housing at West Sompting which has been going through but has stuck in light of local plan allocation. Shoreham Harbour require a bit more investigation to check how consents have been developing through there in comparison to strategic modelling. HE's Worthing/Lancing modelling runs more up-to-date (same caveat as before i.e. 3-hr period).
- GP – will source committed developments from relevant local authorities. Other council committed developments from Adur & Worthing, Shoreham Harbour too, Horsham District Council – check for anything big? Share forecasting uncertainty log.
- ADP – Requested list of all relevant committed developments. What assumptions made within strategic model for Shoreham Cement Works?

- GP – Check uncertainty log to see what that says.
- GP – Overall levels of flows – dealing with one site rather than Local Plan – applying background growth? To avoid double counting.
- KB – If stuff realistically allocated, then use then use allocations rather than TEMPRO. Compare and contrast. May need to use TEMPRO if Local Plan not relevant – may require hybrid approach. Distribution of development unlikely to be too different to local plan.
- GP – for strategic modelling – comparison to development case should be more of less right for everything. Subject to any information what has been happening within Shoreham Harbour – key differences? Types of residential development. Overall forecast traffic flows – 2031 flows growthed from 2009 base? Warranted additional note comparing forecasted v surveyed.
- GP – if using forecasting models of different ages – compare to fixed strategic counts.
- KB – awaiting advice on when surveys can start. Kent CC to listen to surveys from Sept.
- GP – West Sussex to start surveys from September. Keep close eye on long-term monitoring for trends. SDNPA first approached GP, first question – can we wait till September? Couple surveys required before school holidays due to timescales – keep an eye on trends. See how measure up and re-do surveys later if required? Do what we can now, and finesses in few months if required.
- Bank holiday (BH) traffic? More peaky than average weekday peak? A283 seasonal – north-south routes through Downs. Holiday days will be busy days. Sensitivity?
- KB – Sensor out / ATC to determine BH / Holiday traffic? Continuous site A283 between site and A27. Discern BH traffic variation?
- GP – to look and decide if any existing information exists?

Capacity assessments for junctions/links/surveys

- DP – How will capacity assessments undertaken?
- Amol – Criteria proposed to use – increase in link by 30 two-way trips or 5% of baseline traffic, that junction will qualify for capacity assessment. Use standalone assessment using PICADY/ARCADY/LINSIG dependent on junction.
- DJ – 30 or more peak hour trips at junction better rather than percentage.
- KB – Focus more on queue length / delay / loss of service. More pragmatic approach – dependent on existing issues / safety history etc. Can add traffic and make it safer or less safe. Not simplistic – use local knowledge to interpret and judge whether capacity assessment is required.
- Amol – Criteria suggested starting point. Then assess case by case.
- GP – Roundabout under A27 Flyover / got mitigation associated already. Gathering funding / implementing. Include committed highway improvements / mitigation. New Monks Road / Shoreham Airport access roundabout? Local Plan mitigation (minor) for North Lancing roundabout A27. Key junction – existing congestion. Look at Merge / Diverge on to main line. A283 roundabout Shoreham High Street. What proportion of traffic reach? More sustainable transport – not physical improvements.

A283/A24 roundabout at Washington congestion – key strategic – peak time congestion. Northbound AM / Southbound PM. Lesser extent on east/west arms. Horsham District Council local plan review – investigating improvements. 4th Arm of the Junction Design will need to model future flows and the impact of the SCWs, signalised for motorists and pedestrians with LINSIG.

Road Safety

- GP – Road Safety – requirement in guidance – show no unacceptable impact on road safety. Look at existing accident history – look at 5-year period. Road Safety team to supply data. State working for Council to avoid fees and be prioritized. Specify period and scope – should cover the junctions mentioned.
- KB - Review one junction either side of A283 junction. Other side of constrained junction at Southlands.
- GP – development only has to mitigate own impact. Need to prevent exasperating of hot spot collisions etc. Correlate where key locations are for road safety or above average accident rates along links – correlated with where traffic increase is.

Air Quality

- GP – Air Quality – AQMA Shoreham High Street to bear in mind. Do not assess AQ but need sufficient outputs that other people working from NP can assess if any implications for AQ.
- ADP – Assume need AADT / % HGV's along High Street.

Mitigation strategy

- GP – MITIGATION – to comply with local and national policy. Sustainable transport first. Existing cycle path – Shoreham Downs? Existing bus route. Realistic constraints, but working within that. How to use existing facilities – what viable long-term in future improvements. Combination of hard and soft measures? After that, look at highway mitigation.
- KB – Typical sustainable transport starting point. Base it on worst-case scenario. Other end of scale, optimistic. Within that range. Location of site – attractive for car-borne traffic. Depends on build-out profile. Over many years – monitor and manage framework. Set in reviews – worst case, review further down the line.
- ADP – development scenarios. Two site accesses – would like consider potential upgrade of site accesses and potential speed limit reduction within vicinity? Crossing facilities? NSL therefore not appropriate.
- AP – Some speed limit reduction to 40/50mph possible.

- GP – Speed limit policy to send to ADL. Sets out how look at speed limits. Principle – cannot make new dev dependent on TRO. Consider benefits – Open site, and then bring something forward. Cannot have something undeliverable if TRO fails.
- LH – Interesting idea re: improvements to access. Impact on viability due to extra cost?
- LH – South Downs Way national trail. Priority purpose to be considered.
- GP – South Downs Way take a lot of commuter trips.
- AP – Consult with bus companies – improvements to real-time tracking.
- ADP – To suggest improvements to existing bus stops.

Design & costing principles

- GP – Assured that mitigation package is affordable and deliverable. Scope out various sustainable transport measures are likely to cost. Including softer measures and subsidies. Hard infrastructure on crossing links and off-site junction improvements. Design level that is sufficiently a robust cost that will not increase and affect viability.
- KB – Base everything on preliminary design. Costed. Demonstrated how to be funded. Levelling up? Grampian conditions until mitigations are in place?
- GP – Design well enough considered to know what land is required. 3rd party lane, a new level of work.
- ADP – Adopted highway extents / ordnance survey mapping to be provided by the Council?
- GP – Carol Rigler Land Charges to provide the information.
- KB – to provide extracts from GIS re: HE land.
- AP / GP – to review GIS for OS CAD data.
- AP – Design principles – DMRB? Accessing site – keep eye on MfS / MfS2.
- GP – can't have whole proposal dependent on TRO amendment. Initial phase – before speed limit reduction. Ultimate layout – assuming speed limit reduction deliverable.
- LH – Conserve / enhance – landscape. All highway design to be mindful.

Project Management

- Project Management – AP to be key contact for South Down NP. GP direct contact at West Sussex (cc AP). Call follow up with email.

Communication

- AP – Communication – timescales? 2 weeks between each note indicative in timescales?
- ADP – ADL team to put together to-do list. Technical Note 1 to follow 2 weeks from now. Constant communication with progress updates in the interim.
- LH – Over Summer to get dates in diaries.

- Amol – to provide dates for potential meetings / updates.
- KB – agree scoping methodology, and outcomes. Due course – mitigations. Keep HE in loop re: meetings in diaries, how things are progressing and whether need to chip in.

Stakeholders

- AP – primary stakeholders – SDNPA, WSCC and HE – outline updates at Adur
- LH – will be sharing Adur and Worthing, and Horsham.
- GP – Stakeholders - Other neighbouring authorities? Adur and Worthing. Western end Brighton Hove/ and southern end of Horsham?
- GP – Arun preparing for next Local Plan review. Number of permitted sites coming forward from Arun.
- ADP – prefer to communicate to the local authorities via AP.
- LH – AP to introduce ADL to officers at neighbouring authorities.
- GP – a lot of adjacent authorities should have planning information available.
- KB – normal response target 21 days. Will try meet 14 days turnaround.

TRAFFIC & HIGHWAYS ENGINEERING LIMITED

NOTES OF MEETING

Subject:	Shoreham Cement Works – Discussion on ADL Technical Note 1		
Location:	MS Teams		
Date:	05/08/2021	Time:	11:00
ADL Ref:	5201		

In Attendance:

SDNPA	-	Alex Pringle (AP)
WSCC	-	Guy Parfect (GP)
WSCC	-	Olamide Olayinka (OO)
ADL	-	Amol Pisal (ADP)
ADL	-	Alex Painting (AEP)
ADL	-	Andy Miles (AM)

Trip Distribution:

- TA from Monks Farm and Shoreham Airport - Trip distribution based on census travel to work, both major schemes - HE and council accepted the methodology.
- WSCC think availability of MND, 4 years newer than 2011 Census data, data directly relates to range of trip purposes associated with the site should be used as well.
- Agreed to use a mixture of 2011 Census Travel to Work data and MND.
- AP discussed the Census/MND combination to be used for residential and employment as per AP's email of 5th August 2021.
- GP advised that the % splits appeared appropriate.
    - AP advised that for school, external inbound trips would be based on the MND OB_HBO and external outbound trips would be based on the MND IB_HBO
    - For hotel, the trip distribution would be based on NHB
- All convenience store trips to be internal, servicing trips to be negligible / outside of peak hours.
- Using Google Maps data – speak of limitations/uncertainty of this data in reports.

Permitted Trip Generation:

- Use commercial warehouse for mobile home use for existing.

Proposed Trip Generation:

- For hotel, to remove edge of town centre / town centre sites – update in Technical Note 1.
- Need to know number rooms / GFA – AP to chase for further information.
- ADP explained that Friday survey dates within TRICS assessment will not be excluded in both permitted and proposed trip generation.

Traffic Data:

- Missing traffic counts on A283 to north of SCW site – GP has asked Horsham District Council for this (2019 data)

APPENDIX 1.2
NOTES OF MEETING:
TECHNICAL NOTE 1

- Missing traffic counts to south of A27 (Shoreham) – to use data from Shoreham Free Wharf TA (2017) or model flows for any remaining missing junctions – GP to provide.
- Missing traffic counts along the A27 – GP to supply the 2015 data from the HE.

Committed Development:

- To use Wiston Estate Winery development. At the Washington Roundabout, the flows to be distributed in accordance with the turning proportion from the survey.
- Other committed developments – the trip distribution on the critical junctions to be based on Census/MND is possible and further on to be distributed using turning proportion.
- New Monks Farm – use nonfood retail trip generations

TECHNICAL NOTE 1 (REV A)
TRANSPORT ASSESSMENT METHODOLOGY
SHOREHAM CEMENT WORKS
SOUTH DOWNS NATIONAL PARK AUTHORITY
(ADL REF: 5201, 19th AUGUST 2021)

1.0 INTRODUCTION

1.1 ADL Traffic & Highways Engineering Ltd have been commissioned by South Downs National Park Authority (SDNPA) to undertake a transport study of the development scenarios at Shoreham Cement Works.

1.2 A meeting was held with SDNPA and WSCC on 5th August 2021 to discuss trip generation, distributing and assignment methodology. This Technical Note 1 (TN1) Revision A provides an approach agreed with SDNPA and WSCC.

1.3 Following salient items pertinent to this note were discussed and agreed with SDNPA and WSCC:

- Trip distribution to be based on Census/Mobile Network data (MND) combination.
- Using Google Maps for routeing/assignment purposes, but including caveat that the assignment may need to be re-checked later in autumn to see if there have been any significant changes.
- Trip generation for existing mobile home businesses on site to be based on commercial warehousing sites in TRICS (and not car showroom).
- Trip generation for hotels to exclude town centre and suburban sites in TRICS.
- Friday survey dates within TRICS assessment considered to be acceptable given that Friday survey dates have been used for both permitted and proposed trip generation.

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2.0 PERMITTED TRIP GENERATION

2.1 SDNPA's Major Projects Head has provided the following information regarding existing permitted uses on site that have been active during the last five years.

Main Cement works site

Importation, storage and treatment if inept material to produce recycled/secondary aggregate. Site area = 6.23 hectares. 50,000 tonnes per annum between hours 07:00 and 18:00 weekdays and 07:00 and 13:00 Saturdays. Maximum daily movements = 100 HGVs but may be as low as 10.

Uses on the west side of A283

Vehicle repair, coach and bus parking, scrap recycling, scaffold storage etc. Use Classes B1, B2 and B8 including residential security, caravan. 30 businesses employing 150 people. Site are = 3.45 hectares

2.2 Based on the information provided by SDNPA, the cement works site (east of the A283) generates a maximum of 100 HGV movements (i.e., 50 inbound and 50 outbound) on a weekday. Typical peak hour trips (AM and PM peak hours) equate to 10% of the daily trips.

2.3 Therefore, the cement works site would generate 10 HGV movements (i.e., 5 inbound and 5 outbound) during AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hours.

2.4 With regards to the part of the site to the west of the A283, planning permission SDNP/20/00110/CND was granted on 6th July 2020 which would allow the site to be used for purposes falling with use classes B1, B2 and B8 (business, industry and storage) until 31st January 2025.

2.5 It is noted that there are 30 businesses on this part of the site. The list of these businesses was included as part of the 2015/15 planning application. These are provided in Table 2A.

Table 2A Occupants of the site to the west of A283

PLAN REF	PARCEL DESCRIPTION	OCCUPIER NAME	NATURE OF BUSINESS	DESCRIPTION OF USE/ACTIVITIES	AREA (SQM)
1	Container & Hardstanding #27	Peter Taylor	Vehicle recovery	Hardstanding for vehicle storage and a container for the storage of inate material	444
2	Garage Bays 1 & 2	Martin Memory	Mechanic	Garage bay for vehicle repair and adjoining area for vehicle parking	150
3	Garage Bay 3	Vantech Sussex Limited - Chris Carpenter	Mechanic	Garage bay for vehicle repair and adjoining area for vehicle parking	75
4	Garage Bay 4	Vantech Sussex Limited - Chris Carpenter	Mechanic	Garage bay for vehicle repair and adjoining area for vehicle parking	75
5	Garage Bay 5	Ace Travel Ltd	Coach operator	Garage bay for vehicle repair and adjoining area for vehicle parking	75
6	Garage Bay 6 & Container 5	Brightonian & Ocean Coaches - Peter Woodcock	Coach operator	Garage bay for vehicle repair and a container for the storage of inate material	194
7	Garage Bay 7	Heritage Travel	Coach operator	Garage bay for vehicle repair and adjoining area for vehicle parking	75
8	Garage Bay 8	Neil Bird t/a Southern Transit	Bus & coach operator	Garage bay for vehicle repair and adjoining area for vehicle parking	75
9	Hardstanding #1	Vantech Sussex Limited – Chris Carpenter	Mechanic	Hardstanding for coach parking/storage	525
10	Hardstanding #2	Heritage Travel - as 7 (same lease)	Coach operator	Hardstanding for vehicle parking/storage	640
11	Hardstanding #3	C Jenkin & Son	Mobile Home dealer	Hardstanding for mobile home storage	1193
12	Hardstanding #4	Neil Bird t/a Southern Transit	Bus & coach operator	Hardstanding for bus & coach parking/storage	1139
13	Hardstanding #5	Crawley Luxury Coaches - Dave Brown	Coach operator	Hardstanding for coach parking/storage	76
14	Hardstanding #7	Jason Hodge	Scrap/recycling operator	Enclosed yard for the storage of recycliable material	1132
15	Hardstanding #9	S. Holman & C. English	storage of coaches	Hardstanding for coach parking/storage	410
16	Hardstanding #10A & B	J Messham	storage of equipment	storage of Wall of Death equipment	1252
17	Hardstanding #12	Neil Bird t/a Southern Transit	Bus & coach operator	Hardstanding for bus & coach parking/storage	197
18	Hardstanding #13	David Savage	Scrap/recycling operator	Hardstanding for vehicle parking/storage and storage of a boat	49
19	Hardstanding #15	Dave Hunt t/a DSH Leisure	Fairground ride operator	Hardstanding for fairground rides	496
20	Hardstanding #17	Ryan Cunningham	Car storage	Yard and building for paving slab and vehicle storage	207
21	Hardstanding #18	C Jenkin & Son	Mobile Home dealer	Hardstanding for mobile home storage	2009
22	Hardstanding #21	Nigel Crickmore	Vehicle recovery	Hardstanding for vehicle parking/storage	87
23	Hardstanding #22	Steven Wright	Scrap/recycling operator	Hardstanding for vehicle parking/storage	80
24	Hardstanding #23	Avery Howell & Oliver Glover	Vehicle recovery	Hardstanding for vehicle parking/storage	342
25	Hardstanding #25	Neil Bird t/a Southern Transit	Bus & coach operator	Hardstanding for bus & coach parking/storage	634
26	Hardstanding #28	Kristian Dutton	Scrap/reclamation operator	Hardstanding for vehicle parking/storage and an office for associated uses	603
27	Loading Bay	Philip Malkin	Vehicle storage	Yard and building for vehicle storage	410
28	Loco Shed	Ace Travel Ltd	Coach operator	Garage bay for vehicle repair and adjoining hardstanding for vehicle parking	384
29	Packing Plant	Scaffold It (UK) Limited	Scaffolding Company	Yard and building for scaffold storage	917
30	Hardstanding #10C	DC Geoghegen Ltd	Builders	Storage of building materials & skips	

2.6 Table 2A shows that 1,698 sqm area is occupied by vehicle recovery and repair businesses, 8,970 sqm area is used for vehicle storage (cars/coaches/buses), including by mobile home sales company and, 2,781 sqm is occupied by general industrial units. This matches well within the information provided by SDNPA's Major Projects Head (see paragraph 2.1).

2.7 For the purpose of estimating trip generation, vehicle repair garages, commercial warehousing and industrial units are the sub-land uses within TRICS would be chosen. The TRICS reports are provided as Appendices 1.1 to 1.3 respectively. The weekday peak hour trip rates and vehicular trips is provided in Table 2B.

Table 2B Permitted Development to West of A283

		Trip Rate per 100sqm		Vehicle Trips		
		In	Out	In	Out	2-way
Vehicle Repair Garages	08:00-09:00 17:00-18:00	1.220 0.530	0.670 0.850	27 9	11 14	38 23
Commercial Warehousing	08:00-09:00 17:00-18:00	0.217 0.078	0.097 0.224	19 7	9 20	28 27
Industrial Unit	08:00-09:00 17:00-18:00	0.509 0.044	0.087 0.479	14 1	2 13	16 14
Total	**08:00-09:00** **17:00-18:00**			**60** **17**	**22** **47**	**82** **64**

2.8 The total permitted vehicular trip generation associated with the entire site is provided in Table 2C.

Table 2C Total Permitted Vehicular Trip Generation

		In	Out	Two-way
Cement Works Site	08:00-09:00 17:00-18:00	5 5	5 5	10 10
West of A283	08:00-09:00 17:00-18:00	60 17	22 47	82 64
Total	**08:00-09:00** **17:00-18:00**	**65** **22**	**27** **52**	**92** **74**

2.9 Table 2C shows that the overall permitted vehicular trip generation associated with the entire site is estimated to be 92 and 74 two-way vehicular movements during AM and PM peak hours, respectively.

3.0 PROPOSED TRIP GENERATION

3.1 The development scenarios that would be considered as part of the transport study as per ITT are provided in Tables 3A and 3B for eastern and western parts of the site respectively. It is agreed with SDNPA that the non-residential development would take place on the east of the A283. The split of residential element (i.e. east and west of the A283) is as per the projects ITT.

Table 3A Development Scenarios – East of A283

	Scenario A	Scenario B	Scenario C
Dwellings	150	90	10
A1 (sqm)	200	200	200
D1 (sqm)	2,000	2,000	0
B1 (b/c) (sqm)	32,000	32,000	0
B2 (sqm)	16,200	16,200	0
D2 (sqm)	0	0	18,500
C1 (sqm)	7,500	7,500	37,000
B8 (sqm)	20,000	20,000	0

Table 3B Development Scenario – West of A283

	Scenario A	Scenario B	Scenario C
Dwelling	250	150	100

3.2 TRICS has been used to estimate trip generation associated with the aforementioned land uses. The site selection criteria used within TRICS is as follows:

Dwellings (Use Class C3)

- Main land use – Residential
- Sub land use – Houses privately owned
- Multi-modal surveys
- Regions – England (excl. London), Wales, Scotland
- № of dwellings – between 60 and 600 units
- Location – edge of town
- Sites with Travel Plan excluded
- Sites which contain flats excluded, as flats typically have lower car ownership

Primary School (Use Class D1 New Use Class F1)

- Main land use – Education
- Sub land use – Primary
- Multi-modal survey

- Regions – England (excl. London), Wales, Scotland
- Area – between 1,000sqm and 3,000sqm (+/-50% of people)
- Location – Suburban (edge of town sites not available)
- Sites with Travel Plans excluded

Convenience Store (Use Class A1, New Use Class E)

- Main Land use – Retail
- Sub Lane use – Convenience store
- Multi-modal surveys
- Regions – England (excl. London), Wales, Scotland
- Area – between 100sqm and 300sqm (+/- 50% of proposed area)
- Location – Suburban (edge of town sites not available)

R&D/Light Industrial/Storage & Distribution (Use Class B1(b/c), B2, B8)

- Main Land use – Employment
- Sub Land use – Industrial estate
- Multi-modal surveys
- Region – England (excl. London), Wales, Scotland
- Location – Edge of town
- Sites which do not contain any of the B1/B2/B8 excluded

Hotel (Use Class C1)

- Main Land use – Hotel, Food and Drink
- Sub Land use – Hotels
- Multi-modal surveys
- Region – England (excl. London), Wales, Scotland
- Location – Edge of town

3.3 TRICS reports are provided in Appendix 2.1 to 2.5 respectively and the trip rates based on those site selection criteria within TRICS database is provided in Tables 3C to 3G.

Table 3C Residential Trip Rates

	Peak Hour	Trip Rates per Unit		
		In	Out	Two-way
Vehicles	08:00-09:00	0.125	0.385	0.510
	17:00-18:00	0.342	0.135	0.477
Pedestrians	08:00-09:00	0.022	0.056	0.078
	17:00-18:00	0.049	0.021	0.070
Cyclists	08:00-09:00	0.004	0.007	0.011
	17:00-18:00	0.007	0.004	0.011
Public Transport	08:00-09:00	0.000	0.030	0.030
	17:00-18:00	0.014	0.003	0.17
Total People	08:00-09:00	0.196	0.769	0.965
	17:00-18:00	0.611	0.227	0.838

Table 3D Primary School Trip Rates

	Peak Hour	Trip Rates per Pupil		
		In	Out	Two-way
Vehicles	08:00-09:00	0.372	0.275	0.647
	17:00-18:00	0.028	0.049	0.077
Pedestrians	08:00-09:00	0.724	0.234	0.958
	17:00-18:00	0.006	0.012	0.018
Cyclists	08:00-09:00	0.006	0.002	0.008
	17:00-18:00	0.000	0.000	0.000
Public Transport	08:00-09:00	0.031	0.002	0.033
	17:00-18:00	0.000	0.001	0.001
Total People	08:00-09:00	1.294	0.351	1.645
	17:00-18:00	0.038	0.079	0.117

Table 3E Convenience Store Trip Rates

	Peak Hour	Trip Rates per 100sqm		
		In	Out	Two-way
Vehicles	08:00-09:00	11.148	10.983	22.131
	17:00-18:00	11.449	10.258	21.707
Pedestrians	08:00-09:00	18.910	17.836	36.746
	17:00-18:00	23.230	21.906	45.136
Cyclists	08:00-09:00	1.486	1.486	2.972
	17:00-18:00	0.794	0.662	1.456
Public Transport	08:00-09:00	0.413	0.495	0.908
	17:00-18:00	0.728	0.529	1.257
Total People	08:00-09:00	34.434	33.031	67.465
	17:00-18:00	39.643	37.790	77.433

Table 3F Industrial Estate Trip Rates

	Peak Hour	Trip Rates per 100sqm		
		In	Out	Two-way
Vehicles	08:00-09:00	0.317	0.121	0.438
	17:00-18:00	0.094	0.336	0.430
Pedestrians	08:00-09:00	0.005	0.002	0.007
	17:00-18:00	0.002	0.008	0.010
Cyclists	08:00-09:00	0.005	0.001	0.006
	17:00-18:00	0.002	0.008	0.010
Public Transport	08:00-09:00	0.011	0.001	0.012
	17:00-18:00	0.002	0.007	0.009
Total People	08:00-09:00	0.447	0.137	0.584
	17:00-18:00	0.124	0.469	0.593

Table 3G Hotel Trip Rates

	Peak Hour	Trip Rates per 100sqm		
		In	Out	Two-way
Vehicles	08:00-09:00	0.383	0.509	0.892
	17:00-18:00	0.350	0.304	0.654
Pedestrians	08:00-09:00	0.012	0.014	0.026
	17:00-18:00	0.017	0.029	0.046
Cyclists	08:00-09:00	0.007	0.002	0.009
	17:00-18:00	0.002	0.005	0.007
Public Transport	08:00-09:00	0.036	0.277	0.313
	17:00-18:00	0.068	0.058	0.126
Total People	08:00-09:00	0.449	0.916	1.365
	17:00-18:00	0.581	0.461	1.042

4.0 INTERNALISED TRIPS

4.1 Primary School Trips

4.1.1 Some of the trips associated with the primary school would originate internally from the proposed residential element.

4.1.2 In order to determine the number of internalised trips associated with the school, following information has been sought by using combination of 2011 Census and TRICS:

- № of people living within the development
- № of primary school age children living within the development
- Total capacity of proposed primary school.

4.1.3 Based on 2011 Census:

- № of dwellings within West Sussex = 345,614
- Population of West Sussex = 806,892
- Population of primary school aged children = 135,398

4.1.4 Using this information, following has been calculated by way of proportioning:

Development scenario A (400 homes)

- № of people living within development = 934
- № of primary school aged children living within development = **157**

Development scenario B (240 homes)

- № of people living within development = 560
- № of primary school aged children living within development = **94**

Development scenario C (110 homes)

- № of people living within development = 257
- № of primary school aged children living within development = 43

4.1.5 Using the school sites within TRICS database which were used for trip generation, a ratio of 1 pupil to 6 sqm of school area is obtained. Therefore, proposed school area of 2,000 sqm would have a capacity to accommodate 2000 ÷ 6 = 333 pupils.

4.1.6 Therefore, in Development Scenario A, out of 333 pupils studying in the proposed school, 333 – 157 = 176 pupils would travel from nearby areas such as Upper Beeding and Steyning.

4.1.7 In Development Scenario B, out of 333 pupils studying in the proposed school, 333 – 94 = 239 pupils would travel from nearby areas such as Upper Beeding and Steyning.

4.1.8 There is no school within Development Scenario C.

4.2 Employment Trips

4.2.1 The site is located within Super Output Area (SOA) E02006603. 2011 Census data reveals that out of 899 people that travelled to this SOA to work, 170 also lived in this SOA i.e., 19%.

4.2.2 Therefore, further purposes of assessment, 19% of the residential trips would be internal trips associated with the proposed employment uses.

4.3 Convenience Store Trips

4.3.1 The proposed convenience store would be a local facility predominantly used by the residents and staff living and working within the development. During peak hours, there is unlikely to be any external trips or servicing trips that would be generated by this convenience store. This is agreed with SDNPA and WSCC at the meeting on 5th August 2021.

5.0 TRIP DISTRIBUTION AND ASSIGNMENT

5.1 ADL have reviewed the Joint Transport Assessment (TA) prepared in support of New Monks Farm and Shoreham Airport developments by Vectos.

5.2 New Monks Farm development comprised 600 residential dwellings, an Ikea store, a Country Park, primary school, relocated and expanded Withy Patch Gypsy and Traveller site and associated infrastructure.

5.3 Shoreham Airport development comprised 25,000sqm of industrial/warehousing development.

5.4 Vectos TA distributed the residential trips using Census 2011 O-D dataset. This approach was approved by the Highway Authority.

5.5 Ikea trips were distributed based on Census 2011 super Output areas and consideration of overlapping catchments with other Ikea stores.

5.6 Shoreham Airport development trips were also distributed based on 2011 Census O-D dataset.

5.7 All the residents and employment trips were assigned on to the local road network using web-based journey planning tools.

5.8 ADL proposed the exact methodology within the bid document.

5.9 Following the meeting with SDNPA and WSCC on 5th August 2021, it was agreed that whilst the census is the best source for travel to work trips, the mobile Network Data (MND) is the best source for distribution of other trip purposes.

5.10 For residential trips, appropriate split for Census desired journey to work trips and MND desired home-based trips (HBO) would be used as advised by WSCC.

5.11 For employment trips, appropriate split for Census desired journey to work trips and MND desired other trips (NHB) would be used as advised by WSCC.

5.12 For school external trips, the distribution based on MND would be used.

5.13 For hotel trip distribution, MND desired NHB trips would be used.

5.14 Trip distribution has been based following areas with Census and MND:-

Residential

- Horsham 016A to 016E (Middle Super Output Areas (MSOA)

Employment

- Adur 007A (MSOA)

5.15 Based on the agreed trip distribution methodology, trip distribution split between Census and MND for residential and employment elements are provided in Table 5A and 5B.

Table 5A Residential Trip Distribution Split

	In		Out	
	Census HBW	**MND HBO**	**Census HBW**	**MND HBO**
AM Peak Hours	4%	96%	58%	42%
PM Peak Hours	52%	48%	0%	100%

Table 5B Employment Trip Distribution Split

	In		Out	
	Census HBW	**MND NHB**	**Census HBW**	**MND NHB**
AM Peak Hours	69%	31%	0%	100%
PM Peak Hours	3%	97%	53%	47%

5.16 Given that the strategic transport models are not considered to be appropriate for the use for this study, due to various deficiencies on the A27 within Worthing Model and Shoreham Harbour Model being based on 2009 data. Trip assignment/routeing will therefore be based upon Google Maps as agreed with SDNPA and WSCC. It is acknowledged that Google map routeing is based on current travel levels which are affected by COVID restrictions. Hence, further checks would need to undertake in autumn to determine if there have been any significant changes.

APPENDIX 1.0

TRICS: PERMITTED

1.1	Vehicle Repair Garage
1.2	Commercial Warehousing
1.3	Industrial Unit

Calculation Reference: AUDIT-733701-210725-0756

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 15 - VEHICLE SERVICES
Category : A - VEHICLE REPAIR GARAGE (SLOW FIT)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HF	HERTFORDSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	2 days
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 290 to 5100 (units: sqm)
Range Selected by User: 136 to 5100 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 28/06/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	2 days
Wednesday	2 days
Thursday	2 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	8

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	1
Residential Zone	2
No Sub Category	1

APPENDIX 1.1

VEHICLE REPAIR GARAGE

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	3 days
10,001 to 15,000	2 days
15,001 to 20,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Not Known	1 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	8 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CA-15-A-01 GARAGE CAMBRIDGESHIRE
FENGATE
PETERBOROUGH

Edge of Town
Industrial Zone
Total Gross floor area: 900 sqm
Survey date: TUESDAY *16/10/12* *Survey Type: MANUAL*

2 HF-15-A-01 GARAGE HERTFORDSHIRE
LEYDEN ROAD
STEVENAGE

Edge of Town
Industrial Zone
Total Gross floor area: 290 sqm
Survey date: FRIDAY *28/06/19* *Survey Type: MANUAL*

3 LE-15-A-01 GARAGE LEICESTERSHIRE
FLECKNEY ROAD
NEAR LEICESTER
KIBWORTH BEAUCHAMP
Edge of Town
Residential Zone
Total Gross floor area: 333 sqm
Survey date: TUESDAY *10/05/05* *Survey Type: MANUAL*

4 LE-15-A-02 BMW & MINI GARAGE LEICESTERSHIRE
MERIDIAN EAST
LEICESTER
BRAUNSTONE
Edge of Town
Commercial Zone
Total Gross floor area: 5100 sqm
Survey date: THURSDAY *25/06/09* *Survey Type: MANUAL*

5 LN-15-A-01 VEHICLE REPAIR LINCOLNSHIRE
SADLER ROAD
LINCOLN
BIRCHWOOD
Edge of Town
Industrial Zone
Total Gross floor area: 735 sqm
Survey date: WEDNESDAY *16/06/04* *Survey Type: MANUAL*

6 TW-15-A-01 COMMERCIAL VEHICLE GARAGE TYNE & WEAR
HENDON STREET
SUNDERLAND
HENDON
Edge of Town
Industrial Zone
Total Gross floor area: 400 sqm
Survey date: FRIDAY *24/05/19* *Survey Type: MANUAL*

7 WO-15-A-01 AUTOCENTRE WORCESTERSHIRE
BIRMINGHAM ROAD
NEAR BROMSGROVE
MARLBROOK
Edge of Town
Residential Zone
Total Gross floor area: 500 sqm
Survey date: THURSDAY *06/06/02* *Survey Type: MANUAL*

8 WY-15-A-01 FORD GARAGE WEST YORKSHIRE
WHITEHALL ROAD
LEEDS

Edge of Town
No Sub Category
Total Gross floor area: 1746 sqm
Survey date: WEDNESDAY *14/09/05* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 15 - VEHICLE SERVICES/A - VEHICLE REPAIR GARAGE (SLOW FIT)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.250	1	400	0.000	1	400	0.250
07:00 - 08:00	4	1673	0.478	4	1673	0.149	4	1673	0.627
08:00 - 09:00	8	1251	1.220	8	1251	0.670	8	1251	1.890
09:00 - 10:00	8	1251	1.180	8	1251	0.940	8	1251	2.120
10:00 - 11:00	8	1251	0.940	8	1251	0.740	8	1251	1.680
11:00 - 12:00	8	1251	0.920	8	1251	0.640	8	1251	1.560
12:00 - 13:00	8	1251	0.680	8	1251	0.900	8	1251	1.580
13:00 - 14:00	8	1251	0.750	8	1251	0.830	8	1251	1.580
14:00 - 15:00	8	1251	0.760	8	1251	0.960	8	1251	1.720
15:00 - 16:00	8	1251	0.740	8	1251	1.050	8	1251	1.790
16:00 - 17:00	8	1251	0.690	8	1251	0.990	8	1251	1.680
17:00 - 18:00	8	1251	0.530	8	1251	0.850	8	1251	1.380
18:00 - 19:00	8	1251	0.220	8	1251	0.470	8	1251	0.690
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			9.358			9.189			18.547

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	290 - 5100 (units: sqm)
Survey date date range:	01/01/00 - 28/06/19
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 15 - VEHICLE SERVICES/A - VEHICLE REPAIR GARAGE (SLOW FIT)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.000	1	400	0.000	1	400	0.000
07:00 - 08:00	4	1673	0.000	4	1673	0.000	4	1673	0.000
08:00 - 09:00	8	1251	0.070	8	1251	0.040	8	1251	0.110
09:00 - 10:00	8	1251	0.030	8	1251	0.060	8	1251	0.090
10:00 - 11:00	8	1251	0.010	8	1251	0.020	8	1251	0.030
11:00 - 12:00	8	1251	0.020	8	1251	0.030	8	1251	0.050
12:00 - 13:00	8	1251	0.010	8	1251	0.020	8	1251	0.030
13:00 - 14:00	8	1251	0.030	8	1251	0.030	8	1251	0.060
14:00 - 15:00	8	1251	0.040	8	1251	0.030	8	1251	0.070
15:00 - 16:00	8	1251	0.040	8	1251	0.090	8	1251	0.130
16:00 - 17:00	8	1251	0.010	8	1251	0.020	8	1251	0.030
17:00 - 18:00	8	1251	0.030	8	1251	0.020	8	1251	0.050
18:00 - 19:00	8	1251	0.000	8	1251	0.010	8	1251	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.290			0.370			0.660

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210725-0752

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BD	BEDFORDSHIRE	1 days
	EX	ESSEX	1 days
	KC	KENT	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days
10	WALES		
	BG	BRIDGEND	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 190 to 37530 (units: sqm)
Range Selected by User: 190 to 80066 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 25/11/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Wednesday	1 days
Thursday	2 days
Friday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	10

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	9
Commercial Zone	1

APPENDIX 1.2

COMMERCIAL WAREHOUSING

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village,

Secondary Filtering selection:

Use Class:

n/a	2 days
B8	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	3 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	2 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	6 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	10 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	10 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 BD-02-F-02 DRINKS WHOLESALER BEDFORDSHIRE
CAMBRIDGE ROAD
BEDFORD

Edge of Town
Industrial Zone
Total Gross floor area: 3500 sqm
Survey date: THURSDAY *15/10/20* *Survey Type: MANUAL*

2 BG-02-F-01 LOGISTICS COMPANY BRIDGEND
PARC CRESCENT
BRIDGEND
WATERTON IND. EST.
Edge of Town
Industrial Zone
Total Gross floor area: 3050 sqm
Survey date: MONDAY *13/10/14* *Survey Type: MANUAL*

3 DV-02-F-01 OPTICS WAREHOUSE DEVON
ALDERS WAY
PAIGNTON

Edge of Town
Industrial Zone
Total Gross floor area: 190 sqm
Survey date: FRIDAY *29/03/19* *Survey Type: MANUAL*

4 EX-02-F-01 SPORTS SUPPLEMENTS ESSEX
BRUNEL WAY
COLCHESTER
SEVERALLS INDUSTRIAL PK
Edge of Town
Industrial Zone
Total Gross floor area: 6560 sqm
Survey date: FRIDAY *18/05/18* *Survey Type: MANUAL*

5 KC-02-F-02 COMMERCIAL WAREHOUSING KENT
MILLS ROAD
AYLESFORD
QUARRY WOOD
Edge of Town
Industrial Zone
Total Gross floor area: 11200 sqm
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

6 SF-02-F-03 ROAD HAULAGE SUFFOLK
CENTRAL AVENUE
IPSWICH
WARREN HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 4700 sqm
Survey date: FRIDAY *18/09/15* *Survey Type: MANUAL*

7 TW-02-F-01 ASDA DISTRIBUTION CENTRE TYNE & WEAR
MANDARIN WAY
WASHINGTON
PATTISON IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 31000 sqm
Survey date: FRIDAY *13/11/15* *Survey Type: MANUAL*

8 WM-02-F-02 LOGISTICS FIRM WEST MIDLANDS
SOVEREIGN ROAD
BIRMINGHAM
KINGS NORTON
Edge of Town
Commercial Zone
Total Gross floor area: 3625 sqm
Survey date: MONDAY *09/11/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	WO-02-F-03 COTSWOLD WAY WORCESTER	THERMOTECHNOLOGY	WORCESTERSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	37530 sqm	
	Survey date: WEDNESDAY	*14/10/20*	*Survey Type: MANUAL*
10	WY-02-F-02 STAITHGATE LANE BRADFORD NEWHALL Edge of Town Industrial Zone Total Gross floor area:	DISTRIBUTION COMPANY 10446 sqm	WEST YORKSHIRE
	Survey date: THURSDAY	*14/03/19*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	3	4712	0.318	3	4712	0.134	3	4712	0.452
06:00 - 07:00	4	12917	0.252	4	12917	0.062	4	12917	0.314
07:00 - 08:00	10	11180	0.215	10	11180	0.085	10	11180	0.300
08:00 - 09:00	10	11180	0.217	10	11180	0.097	10	11180	0.314
09:00 - 10:00	10	11180	0.165	10	11180	0.072	10	11180	0.237
10:00 - 11:00	10	11180	0.106	10	11180	0.092	10	11180	0.198
11:00 - 12:00	10	11180	0.110	10	11180	0.110	10	11180	0.220
12:00 - 13:00	10	11180	0.109	10	11180	0.108	10	11180	0.217
13:00 - 14:00	10	11180	0.131	10	11180	0.111	10	11180	0.242
14:00 - 15:00	10	11180	0.112	10	11180	0.128	10	11180	0.240
15:00 - 16:00	10	11180	0.106	10	11180	0.128	10	11180	0.234
16:00 - 17:00	10	11180	0.089	10	11180	0.185	10	11180	0.274
17:00 - 18:00	10	11180	0.078	10	11180	0.224	10	11180	0.302
18:00 - 19:00	10	11180	0.039	10	11180	0.155	10	11180	0.194
19:00 - 20:00	4	12917	0.033	4	12917	0.221	4	12917	0.254
20:00 - 21:00	4	12917	0.021	4	12917	0.141	4	12917	0.162
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.101			2.053			4.154

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	190 - 37530 (units: sqm)
Survey date date range:	01/01/13 - 25/11/20
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	3	4712	0.064	3	4712	0.092	3	4712	0.156
06:00 - 07:00	4	12917	0.025	4	12917	0.037	4	12917	0.062
07:00 - 08:00	10	11180	0.030	10	11180	0.050	10	11180	0.080
08:00 - 09:00	10	11180	0.039	10	11180	0.054	10	11180	0.093
09:00 - 10:00	10	11180	0.040	10	11180	0.033	10	11180	0.073
10:00 - 11:00	10	11180	0.044	10	11180	0.045	10	11180	0.089
11:00 - 12:00	10	11180	0.042	10	11180	0.047	10	11180	0.089
12:00 - 13:00	10	11180	0.047	10	11180	0.033	10	11180	0.080
13:00 - 14:00	10	11180	0.040	10	11180	0.039	10	11180	0.079
14:00 - 15:00	10	11180	0.034	10	11180	0.027	10	11180	0.061
15:00 - 16:00	10	11180	0.049	10	11180	0.038	10	11180	0.087
16:00 - 17:00	10	11180	0.047	10	11180	0.040	10	11180	0.087
17:00 - 18:00	10	11180	0.045	10	11180	0.031	10	11180	0.076
18:00 - 19:00	10	11180	0.023	10	11180	0.018	10	11180	0.041
19:00 - 20:00	4	12917	0.004	4	12917	0.012	4	12917	0.016
20:00 - 21:00	4	12917	0.006	4	12917	0.010	4	12917	0.016
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.579			0.606			1.185

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210725-0736

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
08	NORTH WEST		
	LC	LANCASHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days
11	SCOTLAND		
	SR	STIRLING	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1010 to 3000 (units: sqm)
Range Selected by User: 500 to 4000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 22/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	3 days
Thursday	2 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	7

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	6
Commercial Zone	1

APPENDIX 1.3

INDUSTRIAL UNIT

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known	7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	7 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	7 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BR-02-C-02 STAINLESS FITTINGS BRISTOL CITY
SOUTH LIBERTY LANE
BRISTOL

Edge of Town
Industrial Zone
Total Gross floor area: 1475 sqm
Survey date: TUESDAY 22/09/15 Survey Type: MANUAL

2 CB-02-C-01 DOMINO'S PIZZA CUMBRIA
COWPER ROAD
PENRITH
GILWILLY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 2950 sqm
Survey date: TUESDAY 10/06/14 Survey Type: MANUAL

3 HC-02-C-01 ENGINEERING COMPANY HAMPSHIRE
JAYS CLOSE
BASINGSTOKE

Edge of Town
Industrial Zone
Total Gross floor area: 3000 sqm
Survey date: THURSDAY 16/06/16 Survey Type: MANUAL

4 HE-02-C-02 THERMAL PROCESSING HEREFORDSHIRE
COLLEGE ROAD
HEREFORD
BURCOTT
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm
Survey date: TUESDAY 22/10/13 Survey Type: MANUAL

5 LC-02-C-04 POWDER COATINGS LANCASHIRE
CHORLEY ROAD
BLACKPOOL
LITTLE CARLETON
Edge of Town
Industrial Zone
Total Gross floor area: 1010 sqm
Survey date: THURSDAY 20/06/19 Survey Type: MANUAL

6 SF-02-C-01 JOINERY SUFFOLK
ANSON ROAD
IPSWICH
MARTLESHAM HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 1100 sqm
Survey date: FRIDAY 12/07/13 Survey Type: MANUAL

7 SR-02-C-01 SPECIALIST MODEL MAKING STIRLING
BORROWMEADOW ROAD
STIRLING

Edge of Town
Industrial Zone
Total Gross floor area: 2350 sqm
Survey date: MONDAY 16/06/14 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BD-02-C-01	survey undertaken during covid restrictions

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	2950	0.102	1	2950	0.000	1	2950	0.102
06:00 - 07:00	2	2650	0.189	2	2650	0.019	2	2650	0.208
07:00 - 08:00	7	1966	0.487	7	1966	0.080	7	1966	0.567
08:00 - 09:00	7	1966	0.509	7	1966	0.087	7	1966	0.596
09:00 - 10:00	7	1966	0.312	7	1966	0.160	7	1966	0.472
10:00 - 11:00	7	1966	0.262	7	1966	0.225	7	1966	0.487
11:00 - 12:00	7	1966	0.138	7	1966	0.160	7	1966	0.298
12:00 - 13:00	7	1966	0.189	7	1966	0.167	7	1966	0.356
13:00 - 14:00	7	1966	0.276	7	1966	0.312	7	1966	0.588
14:00 - 15:00	7	1966	0.131	7	1966	0.203	7	1966	0.334
15:00 - 16:00	7	1966	0.116	7	1966	0.232	7	1966	0.348
16:00 - 17:00	7	1966	0.065	7	1966	0.298	7	1966	0.363
17:00 - 18:00	7	1966	0.044	7	1966	0.479	7	1966	0.523
18:00 - 19:00	7	1966	0.094	7	1966	0.225	7	1966	0.319
19:00 - 20:00	1	2950	0.203	1	2950	0.203	1	2950	0.406
20:00 - 21:00	1	2950	0.102	1	2950	0.136	1	2950	0.238
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.219			2.986			6.205

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	1010 - 3000 (units: sqm)
Survey date date range:	01/01/13 - 22/10/20
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 07:00	2	2650	0.038	2	2650	0.000	2	2650	0.038
07:00 - 08:00	7	1966	0.015	7	1966	0.015	7	1966	0.030
08:00 - 09:00	7	1966	0.058	7	1966	0.007	7	1966	0.065
09:00 - 10:00	7	1966	0.029	7	1966	0.036	7	1966	0.065
10:00 - 11:00	7	1966	0.051	7	1966	0.051	7	1966	0.102
11:00 - 12:00	7	1966	0.029	7	1966	0.029	7	1966	0.058
12:00 - 13:00	7	1966	0.015	7	1966	0.022	7	1966	0.037
13:00 - 14:00	7	1966	0.022	7	1966	0.015	7	1966	0.037
14:00 - 15:00	7	1966	0.000	7	1966	0.007	7	1966	0.007
15:00 - 16:00	7	1966	0.015	7	1966	0.015	7	1966	0.030
16:00 - 17:00	7	1966	0.022	7	1966	0.015	7	1966	0.037
17:00 - 18:00	7	1966	0.015	7	1966	0.015	7	1966	0.030
18:00 - 19:00	7	1966	0.007	7	1966	0.007	7	1966	0.014
19:00 - 20:00	1	2950	0.000	1	2950	0.203	1	2950	0.203
20:00 - 21:00	1	2950	0.000	1	2950	0.102	1	2950	0.102
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.316			0.539			0.855

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

APPENDIX 2.0

TRICS: PROPOSED

2.1	House (Privately Owned)
2.2	Primary School
2.3	Convenience Store
2.4	Industrial Estate
2.5	Hotels

Calculation Reference: AUDIT-733701-210724-0705

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	3 days
	KC	KENT	2 days
	SC	SURREY	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	1 days
09	NORTH		
	DH	DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 54 to 432 (units:)
Range Selected by User: 50 to 600 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 08/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	2 days
Wednesday	3 days
Thursday	2 days
Friday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	12 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

APPENDIX 2.1

HOUSE (PRIVATELY OWNED)

Selected Locations:

Edge of Town	12

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	10

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	12 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
5,001 to 10,000	3 days
10,001 to 15,000	6 days
15,001 to 20,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	9 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	12 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	12 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 DH-03-A-03 SEMI-DETACHED & TERRACED DURHAM
PILGRIMS WAY
DURHAM

Edge of Town
Residential Zone
Total No of Dwellings: 57
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

2 DS-03-A-02 MIXED HOUSES DERBYSHIRE
RADBOURNE LANE
DERBY

Edge of Town
Residential Zone
Total No of Dwellings: 371
Survey date: TUESDAY *10/07/18* *Survey Type: MANUAL*

3 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

4 ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total No of Dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

5 ES-03-A-05 MIXED HOUSES & FLATS EAST SUSSEX
RATTLE ROAD
NEAR EASTBOURNE
STONE CROSS
Edge of Town
Residential Zone
Total No of Dwellings: 99
Survey date: WEDNESDAY *05/06/19* *Survey Type: MANUAL*

6 KC-03-A-04 SEMI-DETACHED & TERRACED KENT
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total No of Dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

7 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total No of Dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

8 NE-03-A-02 SEMI DETACHED & DETACHED NORTH EAST LINCOLNSHIRE
HANOVER WALK
SCUNTHORPE

Edge of Town
No Sub Category
Total No of Dwellings: 432
Survey date: MONDAY *12/05/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	NY-03-A-10	HOUSES AND FLATS	NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD		
	RIPON		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	71	
	Survey date: TUESDAY	*17/09/13*	*Survey Type: MANUAL*
10	SC-03-A-04	DETACHED & TERRACED	SURREY
	HIGH ROAD		
	BYFLEET		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	71	
	Survey date: THURSDAY	*23/01/14*	*Survey Type: MANUAL*
11	SH-03-A-05	SEMI-DETACHED/TERRACED	SHROPSHIRE
	SANDCROFT		
	TELFORD		
	SUTTON HILL		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	54	
	Survey date: THURSDAY	*24/10/13*	*Survey Type: MANUAL*
12	ST-03-A-07	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	BEACONSIDE		
	STAFFORD		
	MARSTON GATE		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	248	
	Survey date: WEDNESDAY	*22/11/17*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.081	12	179	0.305	12	179	0.386
08:00 - 09:00	12	179	0.125	12	179	0.385	12	179	0.510
09:00 - 10:00	12	179	0.125	12	179	0.152	12	179	0.277
10:00 - 11:00	12	179	0.117	12	179	0.146	12	179	0.263
11:00 - 12:00	12	179	0.130	12	179	0.142	12	179	0.272
12:00 - 13:00	12	179	0.145	12	179	0.143	12	179	0.288
13:00 - 14:00	12	179	0.152	12	179	0.147	12	179	0.299
14:00 - 15:00	12	179	0.176	12	179	0.162	12	179	0.338
15:00 - 16:00	12	179	0.255	12	179	0.178	12	179	0.433
16:00 - 17:00	12	179	0.275	12	179	0.175	12	179	0.450
17:00 - 18:00	12	179	0.342	12	179	0.135	12	179	0.477
18:00 - 19:00	12	179	0.292	12	179	0.162	12	179	0.454
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.215			2.232			4.447

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	54 - 432 (units:)
Survey date date range:	01/01/13 - 08/10/20
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.002	12	179	0.001	12	179	0.003
08:00 - 09:00	12	179	0.002	12	179	0.001	12	179	0.003
09:00 - 10:00	12	179	0.002	12	179	0.001	12	179	0.003
10:00 - 11:00	12	179	0.003	12	179	0.003	12	179	0.006
11:00 - 12:00	12	179	0.001	12	179	0.001	12	179	0.002
12:00 - 13:00	12	179	0.001	12	179	0.003	12	179	0.004
13:00 - 14:00	12	179	0.004	12	179	0.001	12	179	0.005
14:00 - 15:00	12	179	0.001	12	179	0.003	12	179	0.004
15:00 - 16:00	12	179	0.002	12	179	0.003	12	179	0.005
16:00 - 17:00	12	179	0.003	12	179	0.003	12	179	0.006
17:00 - 18:00	12	179	0.001	12	179	0.000	12	179	0.001
18:00 - 19:00	12	179	0.000	12	179	0.000	12	179	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.020			0.042

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.005	12	179	0.005	12	179	0.010
08:00 - 09:00	12	179	0.004	12	179	0.007	12	179	0.011
09:00 - 10:00	12	179	0.000	12	179	0.002	12	179	0.002
10:00 - 11:00	12	179	0.000	12	179	0.003	12	179	0.003
11:00 - 12:00	12	179	0.003	12	179	0.004	12	179	0.007
12:00 - 13:00	12	179	0.001	12	179	0.002	12	179	0.003
13:00 - 14:00	12	179	0.003	12	179	0.001	12	179	0.004
14:00 - 15:00	12	179	0.002	12	179	0.002	12	179	0.004
15:00 - 16:00	12	179	0.002	12	179	0.004	12	179	0.006
16:00 - 17:00	12	179	0.007	12	179	0.003	12	179	0.010
17:00 - 18:00	12	179	0.007	12	179	0.004	12	179	0.011
18:00 - 19:00	12	179	0.004	12	179	0.005	12	179	0.009
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.038			0.042			0.080

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.011	12	179	0.023	12	179	0.034
08:00 - 09:00	12	179	0.022	12	179	0.056	12	179	0.078
09:00 - 10:00	12	179	0.031	12	179	0.027	12	179	0.058
10:00 - 11:00	12	179	0.026	12	179	0.033	12	179	0.059
11:00 - 12:00	12	179	0.023	12	179	0.026	12	179	0.049
12:00 - 13:00	12	179	0.025	12	179	0.026	12	179	0.051
13:00 - 14:00	12	179	0.024	12	179	0.021	12	179	0.045
14:00 - 15:00	12	179	0.027	12	179	0.036	12	179	0.063
15:00 - 16:00	12	179	0.054	12	179	0.040	12	179	0.094
16:00 - 17:00	12	179	0.048	12	179	0.026	12	179	0.074
17:00 - 18:00	12	179	0.049	12	179	0.021	12	179	0.070
18:00 - 19:00	12	179	0.032	12	179	0.038	12	179	0.070
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.372			0.373			0.745

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.000	12	179	0.018	12	179	0.018
08:00 - 09:00	12	179	0.000	12	179	0.030	12	179	0.030
09:00 - 10:00	12	179	0.002	12	179	0.009	12	179	0.011
10:00 - 11:00	12	179	0.006	12	179	0.007	12	179	0.013
11:00 - 12:00	12	179	0.004	12	179	0.007	12	179	0.011
12:00 - 13:00	12	179	0.005	12	179	0.006	12	179	0.011
13:00 - 14:00	12	179	0.004	12	179	0.005	12	179	0.009
14:00 - 15:00	12	179	0.005	12	179	0.003	12	179	0.008
15:00 - 16:00	12	179	0.021	12	179	0.009	12	179	0.030
16:00 - 17:00	12	179	0.021	12	179	0.003	12	179	0.024
17:00 - 18:00	12	179	0.014	12	179	0.003	12	179	0.017
18:00 - 19:00	12	179	0.022	12	179	0.007	12	179	0.029
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.104			0.107			0.211

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.118	12	179	0.500	12	179	0.618
08:00 - 09:00	12	179	0.196	12	179	0.769	12	179	0.965
09:00 - 10:00	12	179	0.202	12	179	0.272	12	179	0.474
10:00 - 11:00	12	179	0.190	12	179	0.252	12	179	0.442
11:00 - 12:00	12	179	0.216	12	179	0.257	12	179	0.473
12:00 - 13:00	12	179	0.237	12	179	0.232	12	179	0.469
13:00 - 14:00	12	179	0.252	12	179	0.245	12	179	0.497
14:00 - 15:00	12	179	0.289	12	179	0.274	12	179	0.563
15:00 - 16:00	12	179	0.526	12	179	0.317	12	179	0.843
16:00 - 17:00	12	179	0.558	12	179	0.303	12	179	0.861
17:00 - 18:00	12	179	0.611	12	179	0.227	12	179	0.838
18:00 - 19:00	12	179	0.503	12	179	0.308	12	179	0.811
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.898			3.956			7.854

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210724-0753

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : A - PRIMARY
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DV	DEVON	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
08	NORTH WEST		
	MS	MERSEYSIDE	2 days
10	WALES		
	MT	MERTHYR TYDFIL	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of pupils
Actual Range: 184 to 447 (units:)
Range Selected by User: 92 to 472 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 03/04/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Thursday	2 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	5

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

APPENDIX 2.2

PRIMARY SCHOOL

Secondary Filtering selection:

Use Class:

F1(a)	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	1 days
250,001 to 500,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	5 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 DV-04-A-03 PRIMARY SCHOOL DEVON
ARDEN GROVE
PLYMOUTH
PENNYCROSS
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 230
Survey date: FRIDAY *08/07/05* *Survey Type: MANUAL*

2 MS-04-A-01 RC PRIMARY SCHOOL MERSEYSIDE
DERWENT ROAD
ST HELENS

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 193
Survey date: THURSDAY *05/10/06* *Survey Type: MANUAL*

3 MS-04-A-02 PRIMARY SCHOOL MERSEYSIDE
BOOKER AVENUE
LIVERPOOL
ALVERTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 264
Survey date: THURSDAY *13/06/13* *Survey Type: MANUAL*

4 MT-04-A-01 PRIMARY SCHOOL MERTHYR TYDFIL
BRECON ROAD
MERTHYR TYDFIL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 184
Survey date: FRIDAY *18/10/13* *Survey Type: MANUAL*

5 WO-04-A-01 PRIMARY SCHOOL WORCESTERSHIRE
ST PETERS CHURCH LANE
DROITWICH SPA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 447
Survey date: MONDAY *13/06/05* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CW-04-A-03	outside of the +/-50% of the proposed sqm
LC-04-A-05	outside of the +/-50% of the proposed sqm

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	264	0.042	5	264	0.025	5	264	0.067
08:00 - 09:00	5	264	0.372	5	264	0.275	5	264	0.647
09:00 - 10:00	5	264	0.037	5	264	0.069	5	264	0.106
10:00 - 11:00	5	264	0.013	5	264	0.014	5	264	0.027
11:00 - 12:00	5	264	0.036	5	264	0.014	5	264	0.050
12:00 - 13:00	5	264	0.018	5	264	0.043	5	264	0.061
13:00 - 14:00	5	264	0.027	5	264	0.035	5	264	0.062
14:00 - 15:00	5	264	0.074	5	264	0.015	5	264	0.089
15:00 - 16:00	5	264	0.155	5	264	0.217	5	264	0.372
16:00 - 17:00	5	264	0.042	5	264	0.072	5	264	0.114
17:00 - 18:00	5	264	0.028	5	264	0.049	5	264	0.077
18:00 - 19:00	3	301	0.000	3	301	0.000	3	301	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.844			0.828			1.672

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	184 - 447 (units:)
Survey date date range:	01/01/00 - 03/04/19
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY
MULTI-MODAL OGVS
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	264	0.001	5	264	0.001	5	264	0.002
08:00 - 09:00	5	264	0.001	5	264	0.001	5	264	0.002
09:00 - 10:00	5	264	0.001	5	264	0.001	5	264	0.002
10:00 - 11:00	5	264	0.000	5	264	0.000	5	264	0.000
11:00 - 12:00	5	264	0.002	5	264	0.002	5	264	0.004
12:00 - 13:00	5	264	0.000	5	264	0.000	5	264	0.000
13:00 - 14:00	5	264	0.001	5	264	0.001	5	264	0.002
14:00 - 15:00	5	264	0.000	5	264	0.000	5	264	0.000
15:00 - 16:00	5	264	0.000	5	264	0.000	5	264	0.000
16:00 - 17:00	5	264	0.000	5	264	0.000	5	264	0.000
17:00 - 18:00	5	264	0.000	5	264	0.000	5	264	0.000
18:00 - 19:00	3	301	0.000	3	301	0.000	3	301	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY
MULTI-MODAL CYCLISTS
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	264	0.001	5	264	0.000	5	264	0.001
08:00 - 09:00	5	264	0.006	5	264	0.002	5	264	0.008
09:00 - 10:00	5	264	0.000	5	264	0.000	5	264	0.000
10:00 - 11:00	5	264	0.000	5	264	0.000	5	264	0.000
11:00 - 12:00	5	264	0.000	5	264	0.000	5	264	0.000
12:00 - 13:00	5	264	0.001	5	264	0.000	5	264	0.001
13:00 - 14:00	5	264	0.000	5	264	0.000	5	264	0.000
14:00 - 15:00	5	264	0.000	5	264	0.001	5	264	0.001
15:00 - 16:00	5	264	0.000	5	264	0.005	5	264	0.005
16:00 - 17:00	5	264	0.000	5	264	0.001	5	264	0.001
17:00 - 18:00	5	264	0.000	5	264	0.000	5	264	0.000
18:00 - 19:00	3	301	0.000	3	301	0.000	3	301	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.008			0.009			0.017

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	264	0.017	5	264	0.000	5	264	0.017
08:00 - 09:00	5	264	0.724	5	264	0.234	5	264	0.958
09:00 - 10:00	5	264	0.019	5	264	0.101	5	264	0.120
10:00 - 11:00	5	264	0.008	5	264	0.008	5	264	0.016
11:00 - 12:00	5	264	0.014	5	264	0.007	5	264	0.021
12:00 - 13:00	5	264	0.016	5	264	0.016	5	264	0.032
13:00 - 14:00	5	264	0.011	5	264	0.024	5	264	0.035
14:00 - 15:00	5	264	0.108	5	264	0.021	5	264	0.129
15:00 - 16:00	5	264	0.371	5	264	0.846	5	264	1.217
16:00 - 17:00	5	264	0.024	5	264	0.058	5	264	0.082
17:00 - 18:00	5	264	0.006	5	264	0.012	5	264	0.018
18:00 - 19:00	3	301	0.000	3	301	0.006	3	301	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.318			1.333			2.651

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	264	0.001	5	264	0.000	5	264	0.001
08:00 - 09:00	5	264	0.031	5	264	0.002	5	264	0.033
09:00 - 10:00	5	264	0.000	5	264	0.001	5	264	0.001
10:00 - 11:00	5	264	0.002	5	264	0.001	5	264	0.003
11:00 - 12:00	5	264	0.002	5	264	0.000	5	264	0.002
12:00 - 13:00	5	264	0.020	5	264	0.000	5	264	0.020
13:00 - 14:00	5	264	0.003	5	264	0.002	5	264	0.005
14:00 - 15:00	5	264	0.029	5	264	0.026	5	264	0.055
15:00 - 16:00	5	264	0.003	5	264	0.042	5	264	0.045
16:00 - 17:00	5	264	0.000	5	264	0.002	5	264	0.002
17:00 - 18:00	5	264	0.000	5	264	0.001	5	264	0.001
18:00 - 19:00	3	301	0.000	3	301	0.000	3	301	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.091			0.077			0.168

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	264	0.076	5	264	0.027	5	264	0.103
08:00 - 09:00	5	264	1.294	5	264	0.351	5	264	1.645
09:00 - 10:00	5	264	0.067	5	264	0.175	5	264	0.242
10:00 - 11:00	5	264	0.026	5	264	0.025	5	264	0.051
11:00 - 12:00	5	264	0.059	5	264	0.020	5	264	0.079
12:00 - 13:00	5	264	0.058	5	264	0.081	5	264	0.139
13:00 - 14:00	5	264	0.061	5	264	0.070	5	264	0.131
14:00 - 15:00	5	264	0.180	5	264	0.064	5	264	0.244
15:00 - 16:00	5	264	0.451	5	264	1.259	5	264	1.710
16:00 - 17:00	5	264	0.069	5	264	0.186	5	264	0.255
17:00 - 18:00	5	264	0.038	5	264	0.079	5	264	0.117
18:00 - 19:00	3	301	0.000	3	301	0.006	3	301	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.379			2.343			4.722

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210724-0736

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : O - CONVENIENCE STORE
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
03	SOUTH WEST		
	BA	BATH & NORTH EAST SOMERSET	1 days
	DC	DORSET	1 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
11	SCOTLAND		
	FA	FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 165 to 300 (units: sqm)
Range Selected by User: 100 to 300 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 25/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Wednesday	1 days
Friday	4 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	6

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

APPENDIX 2.3

CONVENIENCE STORE

Secondary Filtering selection:

Use Class:

Not Known	3 days
E(a)	3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

15,001 to 20,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	6 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	6 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BA-01-O-01 CO-OP BATH & NORTH EAST SOMERSET
JULIAN ROAD
BATH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 165 sqm
Survey date: FRIDAY *29/09/06* *Survey Type: MANUAL*

2 DC-01-O-01 LONDIS DORSET
MAUD ROAD
DORCHESTER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 176 sqm
Survey date: FRIDAY *04/07/08* *Survey Type: MANUAL*

3 ES-01-O-01 ONE STOP EAST SUSSEX
THE SIDINGS
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 280 sqm
Survey date: WEDNESDAY *19/12/12* *Survey Type: MANUAL*

4 FA-01-O-01 SPAR FALKIRK
THORNHILL ROAD
FALKIRK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 300 sqm
Survey date: MONDAY *09/04/07* *Survey Type: MANUAL*

5 NF-01-O-01 TESCO EXPRESS NORFOLK
DEREHAM ROAD
NORWICH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 298 sqm
Survey date: FRIDAY *26/10/12* *Survey Type: MANUAL*

6 WL-01-O-01 ONE STOP WILTSHIRE
THE CIRCLE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 292 sqm
Survey date: FRIDAY *23/09/16* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	2.249	2	289	1.903	2	289	4.152
07:00 - 08:00	5	242	9.083	5	242	8.175	5	242	17.258
08:00 - 09:00	5	242	11.148	5	242	10.983	5	242	22.131
09:00 - 10:00	5	242	8.753	5	242	7.680	5	242	16.433
10:00 - 11:00	6	252	6.552	6	252	6.221	6	252	12.773
11:00 - 12:00	6	252	6.420	6	252	6.949	6	252	13.369
12:00 - 13:00	6	252	9.199	6	252	8.802	6	252	18.001
13:00 - 14:00	6	252	6.750	6	252	6.750	6	252	13.500
14:00 - 15:00	6	252	7.611	6	252	7.148	6	252	14.759
15:00 - 16:00	6	252	7.809	6	252	8.008	6	252	15.817
16:00 - 17:00	6	252	11.714	6	252	10.192	6	252	21.906
17:00 - 18:00	6	252	11.449	6	252	10.258	6	252	21.707
18:00 - 19:00	6	252	12.773	6	252	12.972	6	252	25.745
19:00 - 20:00	6	252	11.251	6	252	12.508	6	252	23.759
20:00 - 21:00	4	264	7.116	4	264	8.634	4	264	15.750
21:00 - 22:00	2	289	3.287	2	289	4.844	2	289	8.131
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			133.164			132.027			265.191

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	165 - 300 (units: sqm)
Survey date date range:	01/01/00 - 25/09/19
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	0.000	2	289	0.000	2	289	0.000
07:00 - 08:00	5	242	0.248	5	242	0.330	5	242	0.578
08:00 - 09:00	5	242	0.248	5	242	0.165	5	242	0.413
09:00 - 10:00	5	242	0.165	5	242	0.248	5	242	0.413
10:00 - 11:00	6	252	0.265	6	252	0.265	6	252	0.530
11:00 - 12:00	6	252	0.000	6	252	0.000	6	252	0.000
12:00 - 13:00	6	252	0.132	6	252	0.132	6	252	0.264
13:00 - 14:00	6	252	0.066	6	252	0.000	6	252	0.066
14:00 - 15:00	6	252	0.000	6	252	0.000	6	252	0.000
15:00 - 16:00	6	252	0.000	6	252	0.000	6	252	0.000
16:00 - 17:00	6	252	0.000	6	252	0.000	6	252	0.000
17:00 - 18:00	6	252	0.000	6	252	0.000	6	252	0.000
18:00 - 19:00	6	252	0.000	6	252	0.000	6	252	0.000
19:00 - 20:00	6	252	0.000	6	252	0.000	6	252	0.000
20:00 - 21:00	4	264	0.000	4	264	0.000	4	264	0.000
21:00 - 22:00	2	289	0.000	2	289	0.000	2	289	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.124			1.140			2.264

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	0.519	2	289	0.346	2	289	0.865
07:00 - 08:00	5	242	1.156	5	242	1.404	5	242	2.560
08:00 - 09:00	5	242	1.486	5	242	1.486	5	242	2.972
09:00 - 10:00	5	242	0.495	5	242	0.330	5	242	0.825
10:00 - 11:00	6	252	0.265	6	252	0.132	6	252	0.397
11:00 - 12:00	6	252	0.066	6	252	0.132	6	252	0.198
12:00 - 13:00	6	252	0.662	6	252	0.596	6	252	1.258
13:00 - 14:00	6	252	0.265	6	252	0.397	6	252	0.662
14:00 - 15:00	6	252	0.331	6	252	0.331	6	252	0.662
15:00 - 16:00	6	252	0.662	6	252	0.728	6	252	1.390
16:00 - 17:00	6	252	1.257	6	252	0.927	6	252	2.184
17:00 - 18:00	6	252	0.794	6	252	0.662	6	252	1.456
18:00 - 19:00	6	252	0.860	6	252	0.794	6	252	1.654
19:00 - 20:00	6	252	0.794	6	252	0.662	6	252	1.456
20:00 - 21:00	4	264	0.285	4	264	0.664	4	264	0.949
21:00 - 22:00	2	289	0.519	2	289	0.519	2	289	1.038
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			10.416			10.110			20.526

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	2.422	2	289	2.249	2	289	4.671
07:00 - 08:00	5	242	12.056	5	242	11.808	5	242	23.864
08:00 - 09:00	5	242	18.910	5	242	17.836	5	242	36.746
09:00 - 10:00	5	242	13.625	5	242	11.808	5	242	25.433
10:00 - 11:00	6	252	13.038	6	252	12.508	6	252	25.546
11:00 - 12:00	6	252	14.428	6	252	13.766	6	252	28.194
12:00 - 13:00	6	252	13.236	6	252	14.163	6	252	27.399
13:00 - 14:00	6	252	14.097	6	252	15.089	6	252	29.186
14:00 - 15:00	6	252	14.295	6	252	14.560	6	252	28.855
15:00 - 16:00	6	252	25.281	6	252	23.031	6	252	48.312
16:00 - 17:00	6	252	20.119	6	252	20.318	6	252	40.437
17:00 - 18:00	6	252	23.230	6	252	21.906	6	252	45.136
18:00 - 19:00	6	252	24.222	6	252	25.083	6	252	49.305
19:00 - 20:00	6	252	24.619	6	252	25.943	6	252	50.562
20:00 - 21:00	4	264	14.516	4	264	14.706	4	264	29.222
21:00 - 22:00	2	289	12.976	2	289	14.360	2	289	27.336
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			261.070			259.134			520.204

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	0.000	2	289	0.000	2	289	0.000
07:00 - 08:00	5	242	0.248	5	242	0.413	5	242	0.661
08:00 - 09:00	5	242	0.413	5	242	0.495	5	242	0.908
09:00 - 10:00	5	242	0.330	5	242	0.330	5	242	0.660
10:00 - 11:00	6	252	0.265	6	252	0.265	6	252	0.530
11:00 - 12:00	6	252	0.596	6	252	0.397	6	252	0.993
12:00 - 13:00	6	252	0.199	6	252	0.265	6	252	0.464
13:00 - 14:00	6	252	0.463	6	252	0.265	6	252	0.728
14:00 - 15:00	6	252	0.463	6	252	0.331	6	252	0.794
15:00 - 16:00	6	252	0.331	6	252	0.265	6	252	0.596
16:00 - 17:00	6	252	0.331	6	252	0.199	6	252	0.530
17:00 - 18:00	6	252	0.728	6	252	0.529	6	252	1.257
18:00 - 19:00	6	252	0.397	6	252	0.199	6	252	0.596
19:00 - 20:00	6	252	0.000	6	252	0.000	6	252	0.000
20:00 - 21:00	4	264	0.000	4	264	0.000	4	264	0.000
21:00 - 22:00	2	289	0.000	2	289	0.000	2	289	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.764			3.953			8.717

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	5.536	2	289	4.671	2	289	10.207
07:00 - 08:00	5	242	24.773	5	242	23.699	5	242	48.472
08:00 - 09:00	5	242	34.434	5	242	33.031	5	242	67.465
09:00 - 10:00	5	242	24.938	5	242	21.965	5	242	46.903
10:00 - 11:00	6	252	21.310	6	252	20.251	6	252	41.561
11:00 - 12:00	6	252	23.031	6	252	23.230	6	252	46.261
12:00 - 13:00	6	252	25.149	6	252	25.546	6	252	50.695
13:00 - 14:00	6	252	22.700	6	252	23.759	6	252	46.459
14:00 - 15:00	6	252	24.156	6	252	23.825	6	252	47.981
15:00 - 16:00	6	252	36.069	6	252	34.282	6	252	70.351
16:00 - 17:00	6	252	37.128	6	252	34.745	6	252	71.873
17:00 - 18:00	6	252	39.643	6	252	37.790	6	252	77.433
18:00 - 19:00	6	252	42.555	6	252	42.819	6	252	85.374
19:00 - 20:00	6	252	39.907	6	252	42.819	6	252	82.726
20:00 - 21:00	4	264	24.099	4	264	27.419	4	264	51.518
21:00 - 22:00	2	289	18.858	2	289	21.799	2	289	40.657
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			444.286			441.650			885.936

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210724-0741

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

06	WEST MIDLANDS		
	WK	WARWICKSHIRE	2 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
11	SCOTLAND		
	AG	ANGUS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 20860 to 150564 (units: sqm)
Range Selected by User: 20000 to 974258 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 26/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	3 days
Wednesday	1 days
Thursday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	5

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	2
Out of Town	2
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

APPENDIX 2.4
INDUSTRIAL ESTATE

Secondary Filtering selection:

Use Class:

Not Known	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

5,001 to 10,000	3 days
10,001 to 15,000	1 days
20,001 to 25,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	3 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	5 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	5 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AG-02-D-02 INDUSTRIAL ESTATE ANGUS
A933 WESTWAY
ARBROATH
HOSPITALFIELD
Edge of Town
No Sub Category
Total Gross floor area: 78500 sqm
Survey date: TUESDAY 25/04/17 Survey Type: MANUAL

2 NY-02-D-02 INDUSTRIAL ESTATE NORTH YORKSHIRE
RACECOURSE ROAD
RICHMOND

Edge of Town
Out of Town
Total Gross floor area: 35183 sqm
Survey date: TUESDAY 12/03/19 Survey Type: MANUAL

3 WK-02-D-01 INDUSTRIAL ESTATE WARWICKSHIRE
CASTLE MOUND WAY
RUGBY

Edge of Town
Industrial Zone
Total Gross floor area: 150564 sqm
Survey date: WEDNESDAY 27/06/18 Survey Type: MANUAL

4 WK-02-D-03 INDUSTRIAL ESTATE WARWICKSHIRE
EASTBORO WAY
NUNEATON

Edge of Town
Industrial Zone
Total Gross floor area: 20860 sqm
Survey date: THURSDAY 26/09/19 Survey Type: MANUAL

5 WO-02-D-03 INDUSTRIAL ESTATE WORCESTERSHIRE
MILLENNIUM WAY
EVESHAM

Edge of Town
Out of Town
Total Gross floor area: 84575 sqm
Survey date: TUESDAY 26/06/18 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
EX-02-D-04	Does not contain B8
WK-02-D-02	Does not contain B2

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.077	1	20860	0.014	1	20860	0.091
06:00 - 07:00	1	20860	0.125	1	20860	0.029	1	20860	0.154
07:00 - 08:00	5	73936	0.282	5	73936	0.079	5	73936	0.361
08:00 - 09:00	5	73936	0.317	5	73936	0.121	5	73936	0.438
09:00 - 10:00	5	73936	0.213	5	73936	0.130	5	73936	0.343
10:00 - 11:00	5	73936	0.184	5	73936	0.134	5	73936	0.318
11:00 - 12:00	5	73936	0.172	5	73936	0.149	5	73936	0.321
12:00 - 13:00	5	73936	0.177	5	73936	0.216	5	73936	0.393
13:00 - 14:00	5	73936	0.222	5	73936	0.196	5	73936	0.418
14:00 - 15:00	5	73936	0.152	5	73936	0.201	5	73936	0.353
15:00 - 16:00	5	73936	0.148	5	73936	0.214	5	73936	0.362
16:00 - 17:00	5	73936	0.136	5	73936	0.284	5	73936	0.420
17:00 - 18:00	5	73936	0.094	5	73936	0.336	5	73936	0.430
18:00 - 19:00	5	73936	0.070	5	73936	0.128	5	73936	0.198
19:00 - 20:00	1	20860	0.235	1	20860	0.206	1	20860	0.441
20:00 - 21:00	1	20860	0.029	1	20860	0.129	1	20860	0.158
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.633			2.566			5.199

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	20860 - 150564 (units: sqm)
Survey date date range:	01/01/13 - 26/09/19
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.000	1	20860	0.005	1	20860	0.005
06:00 - 07:00	1	20860	0.005	1	20860	0.000	1	20860	0.005
07:00 - 08:00	5	73936	0.013	5	73936	0.014	5	73936	0.027
08:00 - 09:00	5	73936	0.017	5	73936	0.019	5	73936	0.036
09:00 - 10:00	5	73936	0.024	5	73936	0.018	5	73936	0.042
10:00 - 11:00	5	73936	0.022	5	73936	0.020	5	73936	0.042
11:00 - 12:00	5	73936	0.018	5	73936	0.019	5	73936	0.037
12:00 - 13:00	5	73936	0.025	5	73936	0.019	5	73936	0.044
13:00 - 14:00	5	73936	0.020	5	73936	0.022	5	73936	0.042
14:00 - 15:00	5	73936	0.019	5	73936	0.019	5	73936	0.038
15:00 - 16:00	5	73936	0.022	5	73936	0.021	5	73936	0.043
16:00 - 17:00	5	73936	0.016	5	73936	0.016	5	73936	0.032
17:00 - 18:00	5	73936	0.011	5	73936	0.010	5	73936	0.021
18:00 - 19:00	5	73936	0.009	5	73936	0.010	5	73936	0.019
19:00 - 20:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
20:00 - 21:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.221			0.212			0.433

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
06:00 - 07:00	1	20860	0.010	1	20860	0.000	1	20860	0.010
07:00 - 08:00	5	73936	0.007	5	73936	0.001	5	73936	0.008
08:00 - 09:00	5	73936	0.005	5	73936	0.001	5	73936	0.006
09:00 - 10:00	5	73936	0.001	5	73936	0.001	5	73936	0.002
10:00 - 11:00	5	73936	0.000	5	73936	0.000	5	73936	0.000
11:00 - 12:00	5	73936	0.001	5	73936	0.001	5	73936	0.002
12:00 - 13:00	5	73936	0.001	5	73936	0.001	5	73936	0.002
13:00 - 14:00	5	73936	0.002	5	73936	0.001	5	73936	0.003
14:00 - 15:00	5	73936	0.002	5	73936	0.003	5	73936	0.005
15:00 - 16:00	5	73936	0.001	5	73936	0.007	5	73936	0.008
16:00 - 17:00	5	73936	0.001	5	73936	0.004	5	73936	0.005
17:00 - 18:00	5	73936	0.002	5	73936	0.008	5	73936	0.010
18:00 - 19:00	5	73936	0.005	5	73936	0.002	5	73936	0.007
19:00 - 20:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
20:00 - 21:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.038			0.030			0.068

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
06:00 - 07:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
07:00 - 08:00	5	73936	0.009	5	73936	0.001	5	73936	0.010
08:00 - 09:00	5	73936	0.005	5	73936	0.002	5	73936	0.007
09:00 - 10:00	5	73936	0.003	5	73936	0.002	5	73936	0.005
10:00 - 11:00	5	73936	0.004	5	73936	0.002	5	73936	0.006
11:00 - 12:00	5	73936	0.002	5	73936	0.003	5	73936	0.005
12:00 - 13:00	5	73936	0.005	5	73936	0.006	5	73936	0.011
13:00 - 14:00	5	73936	0.010	5	73936	0.006	5	73936	0.016
14:00 - 15:00	5	73936	0.003	5	73936	0.006	5	73936	0.009
15:00 - 16:00	5	73936	0.004	5	73936	0.005	5	73936	0.009
16:00 - 17:00	5	73936	0.001	5	73936	0.005	5	73936	0.006
17:00 - 18:00	5	73936	0.002	5	73936	0.008	5	73936	0.010
18:00 - 19:00	5	73936	0.001	5	73936	0.002	5	73936	0.003
19:00 - 20:00	1	20860	0.005	1	20860	0.005	1	20860	0.010
20:00 - 21:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.054			0.053			0.107

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
06:00 - 07:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
07:00 - 08:00	5	73936	0.019	5	73936	0.005	5	73936	0.024
08:00 - 09:00	5	73936	0.011	5	73936	0.001	5	73936	0.012
09:00 - 10:00	5	73936	0.004	5	73936	0.001	5	73936	0.005
10:00 - 11:00	5	73936	0.001	5	73936	0.001	5	73936	0.002
11:00 - 12:00	5	73936	0.002	5	73936	0.002	5	73936	0.004
12:00 - 13:00	5	73936	0.004	5	73936	0.006	5	73936	0.010
13:00 - 14:00	5	73936	0.007	5	73936	0.005	5	73936	0.012
14:00 - 15:00	5	73936	0.002	5	73936	0.006	5	73936	0.008
15:00 - 16:00	5	73936	0.003	5	73936	0.018	5	73936	0.021
16:00 - 17:00	5	73936	0.002	5	73936	0.004	5	73936	0.006
17:00 - 18:00	5	73936	0.002	5	73936	0.007	5	73936	0.009
18:00 - 19:00	5	73936	0.005	5	73936	0.001	5	73936	0.006
19:00 - 20:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
20:00 - 21:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.062			0.057			0.119

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.096	1	20860	0.014	1	20860	0.110
06:00 - 07:00	1	20860	0.211	1	20860	0.034	1	20860	0.245
07:00 - 08:00	5	73936	0.416	5	73936	0.090	5	73936	0.506
08:00 - 09:00	5	73936	0.447	5	73936	0.137	5	73936	0.584
09:00 - 10:00	5	73936	0.289	5	73936	0.152	5	73936	0.441
10:00 - 11:00	5	73936	0.243	5	73936	0.163	5	73936	0.406
11:00 - 12:00	5	73936	0.213	5	73936	0.192	5	73936	0.405
12:00 - 13:00	5	73936	0.224	5	73936	0.278	5	73936	0.502
13:00 - 14:00	5	73936	0.291	5	73936	0.254	5	73936	0.545
14:00 - 15:00	5	73936	0.205	5	73936	0.287	5	73936	0.492
15:00 - 16:00	5	73936	0.194	5	73936	0.326	5	73936	0.520
16:00 - 17:00	5	73936	0.178	5	73936	0.372	5	73936	0.550
17:00 - 18:00	5	73936	0.124	5	73936	0.469	5	73936	0.593
18:00 - 19:00	5	73936	0.113	5	73936	0.189	5	73936	0.302
19:00 - 20:00	1	20860	0.240	1	20860	0.216	1	20860	0.456
20:00 - 21:00	1	20860	0.029	1	20860	0.134	1	20860	0.163
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.513			3.307			6.820

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210811-0817

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : A - HOTELS
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BU	BUCKINGHAMSHIRE	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	1 days
10	WALES		
	SW	SWANSEA	1 days
11	SCOTLAND		
	AG	ANGUS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 720 to 17624 (units: sqm)
Range Selected by User: 720 to 17624 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 25/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Thursday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	6

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	1
Development Zone	1
Residential Zone	1
Out of Town	1
No Sub Category	1

APPENDIX 2.5
HOTELS

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C1	6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	4 days
10,001 to 15,000	1 days
100,001 or More	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	6 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AG-06-A-01 BOUTIQUE B&B ANGUS
CLIFFBURN ROAD
ARBROATH
HAYSHEAD
Edge of Town
Residential Zone
Total Gross floor area: 720 sqm
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

2 BU-06-A-02 HOLIDAY INN BUCKINGHAMSHIRE
NEW ROAD
AYLESBURY
WESTON TURVILLE
Edge of Town
Out of Town
Total Gross floor area: 4675 sqm
Survey date: WEDNESDAY *01/10/14* *Survey Type: MANUAL*

3 DV-06-A-03 FUTURE INN DEVON
WILLIAM PRANCE ROAD
PLYMOUTH

Edge of Town
Industrial Zone
Total Gross floor area: 9850 sqm
Survey date: WEDNESDAY *18/07/12* *Survey Type: MANUAL*

4 LE-06-A-01 MARRIOTT LEICESTERSHIRE
SMITH WAY
LEICESTER
ENDERBY
Edge of Town
Commercial Zone
Total Gross floor area: 17624 sqm
Survey date: THURSDAY *12/07/18* *Survey Type: MANUAL*

5 NF-06-A-02 HOLIDAY INN NORFOLK
IPSWICH ROAD
NORWICH
HARFORD PARK
Edge of Town
No Sub Category
Total Gross floor area: 5600 sqm
Survey date: THURSDAY *30/09/10* *Survey Type: MANUAL*

6 SW-06-A-01 IBIS SWANSEA
FABIAN WAY
SWANSEA
PORT TENNANT
Edge of Town
Development Zone
Total Gross floor area: 2996 sqm
Survey date: MONDAY *07/10/19* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.203	6	6911	0.379	6	6911	0.582
08:00 - 09:00	6	6911	0.383	6	6911	0.509	6	6911	0.892
09:00 - 10:00	6	6911	0.485	6	6911	0.292	6	6911	0.777
10:00 - 11:00	6	6911	0.323	6	6911	0.258	6	6911	0.581
11:00 - 12:00	6	6911	0.159	6	6911	0.277	6	6911	0.436
12:00 - 13:00	6	6911	0.299	6	6911	0.193	6	6911	0.492
13:00 - 14:00	6	6911	0.328	6	6911	0.297	6	6911	0.625
14:00 - 15:00	6	6911	0.227	6	6911	0.270	6	6911	0.497
15:00 - 16:00	6	6911	0.282	6	6911	0.362	6	6911	0.644
16:00 - 17:00	6	6911	0.280	6	6911	0.371	6	6911	0.651
17:00 - 18:00	6	6911	0.350	6	6911	0.304	6	6911	0.654
18:00 - 19:00	6	6911	0.352	6	6911	0.311	6	6911	0.663
19:00 - 20:00	6	6911	0.314	6	6911	0.251	6	6911	0.565
20:00 - 21:00	6	6911	0.205	6	6911	0.147	6	6911	0.352
21:00 - 22:00	6	6911	0.121	6	6911	0.171	6	6911	0.292
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.311			4.392			8.703

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	720 - 17624 (units: sqm)
Survey date date range:	01/01/10 - 25/11/19
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.005	6	6911	0.002	6	6911	0.007
08:00 - 09:00	6	6911	0.007	6	6911	0.007	6	6911	0.014
09:00 - 10:00	6	6911	0.000	6	6911	0.005	6	6911	0.005
10:00 - 11:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
11:00 - 12:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
12:00 - 13:00	6	6911	0.007	6	6911	0.005	6	6911	0.012
13:00 - 14:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
14:00 - 15:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
15:00 - 16:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
16:00 - 17:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
17:00 - 18:00	6	6911	0.000	6	6911	0.002	6	6911	0.002
18:00 - 19:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
19:00 - 20:00	6	6911	0.002	6	6911	0.000	6	6911	0.002
20:00 - 21:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
21:00 - 22:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.031			0.031			0.062

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.012	6	6911	0.000	6	6911	0.012
08:00 - 09:00	6	6911	0.007	6	6911	0.002	6	6911	0.009
09:00 - 10:00	6	6911	0.010	6	6911	0.000	6	6911	0.010
10:00 - 11:00	6	6911	0.005	6	6911	0.010	6	6911	0.015
11:00 - 12:00	6	6911	0.005	6	6911	0.005	6	6911	0.010
12:00 - 13:00	6	6911	0.002	6	6911	0.000	6	6911	0.002
13:00 - 14:00	6	6911	0.007	6	6911	0.002	6	6911	0.009
14:00 - 15:00	6	6911	0.007	6	6911	0.019	6	6911	0.026
15:00 - 16:00	6	6911	0.002	6	6911	0.010	6	6911	0.012
16:00 - 17:00	6	6911	0.005	6	6911	0.012	6	6911	0.017
17:00 - 18:00	6	6911	0.002	6	6911	0.005	6	6911	0.007
18:00 - 19:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
19:00 - 20:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
20:00 - 21:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
21:00 - 22:00	6	6911	0.002	6	6911	0.000	6	6911	0.002
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.068			0.067			0.135

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.017	6	6911	0.027	6	6911	0.044
08:00 - 09:00	6	6911	0.012	6	6911	0.014	6	6911	0.026
09:00 - 10:00	6	6911	0.017	6	6911	0.014	6	6911	0.031
10:00 - 11:00	6	6911	0.005	6	6911	0.010	6	6911	0.015
11:00 - 12:00	6	6911	0.005	6	6911	0.022	6	6911	0.027
12:00 - 13:00	6	6911	0.029	6	6911	0.039	6	6911	0.068
13:00 - 14:00	6	6911	0.041	6	6911	0.055	6	6911	0.096
14:00 - 15:00	6	6911	0.046	6	6911	0.017	6	6911	0.063
15:00 - 16:00	6	6911	0.024	6	6911	0.024	6	6911	0.048
16:00 - 17:00	6	6911	0.024	6	6911	0.017	6	6911	0.041
17:00 - 18:00	6	6911	0.017	6	6911	0.029	6	6911	0.046
18:00 - 19:00	6	6911	0.027	6	6911	0.034	6	6911	0.061
19:00 - 20:00	6	6911	0.014	6	6911	0.010	6	6911	0.024
20:00 - 21:00	6	6911	0.019	6	6911	0.029	6	6911	0.048
21:00 - 22:00	6	6911	0.012	6	6911	0.007	6	6911	0.019
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.309			0.348			0.657

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.031	6	6911	0.053	6	6911	0.084
08:00 - 09:00	6	6911	0.036	6	6911	0.277	6	6911	0.313
09:00 - 10:00	6	6911	0.017	6	6911	0.017	6	6911	0.034
10:00 - 11:00	6	6911	0.041	6	6911	0.027	6	6911	0.068
11:00 - 12:00	6	6911	0.014	6	6911	0.007	6	6911	0.021
12:00 - 13:00	6	6911	0.019	6	6911	0.022	6	6911	0.041
13:00 - 14:00	6	6911	0.014	6	6911	0.019	6	6911	0.033
14:00 - 15:00	6	6911	0.022	6	6911	0.012	6	6911	0.034
15:00 - 16:00	6	6911	0.024	6	6911	0.012	6	6911	0.036
16:00 - 17:00	6	6911	0.046	6	6911	0.010	6	6911	0.056
17:00 - 18:00	6	6911	0.068	6	6911	0.058	6	6911	0.126
18:00 - 19:00	6	6911	0.253	6	6911	0.007	6	6911	0.260
19:00 - 20:00	6	6911	0.002	6	6911	0.010	6	6911	0.012
20:00 - 21:00	6	6911	0.010	6	6911	0.002	6	6911	0.012
21:00 - 22:00	6	6911	0.002	6	6911	0.000	6	6911	0.002
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.599			0.533			1.132

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.277	6	6911	0.543	6	6911	0.820
08:00 - 09:00	6	6911	0.449	6	6911	0.916	6	6911	1.365
09:00 - 10:00	6	6911	0.610	6	6911	0.424	6	6911	1.034
10:00 - 11:00	6	6911	0.432	6	6911	0.362	6	6911	0.794
11:00 - 12:00	6	6911	0.212	6	6911	0.352	6	6911	0.564
12:00 - 13:00	6	6911	0.400	6	6911	0.268	6	6911	0.668
13:00 - 14:00	6	6911	0.468	6	6911	0.412	6	6911	0.880
14:00 - 15:00	6	6911	0.376	6	6911	0.359	6	6911	0.735
15:00 - 16:00	6	6911	0.403	6	6911	0.490	6	6911	0.893
16:00 - 17:00	6	6911	0.461	6	6911	0.494	6	6911	0.955
17:00 - 18:00	6	6911	0.581	6	6911	0.461	6	6911	1.042
18:00 - 19:00	6	6911	0.714	6	6911	0.468	6	6911	1.182
19:00 - 20:00	6	6911	0.429	6	6911	0.371	6	6911	0.800
20:00 - 21:00	6	6911	0.285	6	6911	0.195	6	6911	0.480
21:00 - 22:00	6	6911	0.198	6	6911	0.203	6	6911	0.401
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.295			6.318			12.613

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Alex Painting

From: Amol Pisal
Sent: 09 September 2021 09:21
To: Bowie, David
Cc: Spatial Planning; Bown, Kevin; Cleaver, Elizabeth; JONES Derek; Chiu, Kelly; SouthEast_HESPA@systra.com; Spatial Planning; Alex Pringle; Lucy Howard; Guy Parfect; Alex Painting
Subject: RE: mixed-use development at Shoreham Cement Works, Steyning Road, Upper Beeding, BN44 3TX

Good Morning David

Thank you for the comments.

I have summarised my response to your comments as follows:

1) Permitted trips will indeed be subtracted from the proposed use to obtain 'net' increase in trip generation. Within our final Transport Study Report, we will include this.
2) We are awaiting SDNPA response on what type of leisure use that they envisage to be on site. Once we have a knowledge of this, we will include it in our trip generation assessment. We are also seeking clarification from SDNPA regarding the area proposed for hotel use.
3) Total trip generation (taking into account school internalised trips) will be considered within our Transport Study Report.
4) With regard to internalised employment trips, we have already provided our evidence in the form of Census data within TN1. We do not consider any further evidence is necessary.
5) Table 5A and 5B provides percentage split of trips that will either be distributed based on Census HBW or MND HBO (residential) and Census HBW and MND NHB (employment). Full trip distribution will be included within the Transport Study Report.
6) A CMP would be prepared as part of any future planning application subject to the decision made by the LPA.

Thank you.

Kind regards

Amol Pisal | Director
TRAFFIC & HIGHWAYS ENGINEERING LIMITED
ADL House | The Oaklands Business Park | Armstrong Way | Yate | Bristol | BS37 5NA
M 0752 54 77819| T 01454 332100 | amol@adltraffic.co.uk | www.adltraffic.co.uk

---

From: Bowie, David <David.Bowie@highwaysengland.co.uk>
Sent: 08 September 2021 15:26
To: Amol Pisal <Amol@adltraffic.co.uk>
Cc: Spatial Planning <SpatialPlanning@highwaysengland.co.uk>; Bown, Kevin <Kevin.Bown@highwaysengland.co.uk>; Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>; JONES Derek <djones1@systra.com>; Chiu, Kelly <Kelly.Chiu@highwaysengland.co.uk>; SouthEast_HESPA@systra.com; Spatial Planning <SpatialPlanning@highwaysengland.co.uk>
Subject: mixed-use development at Shoreham Cement Works, Steyning Road, Upper Beeding, BN44 3TX

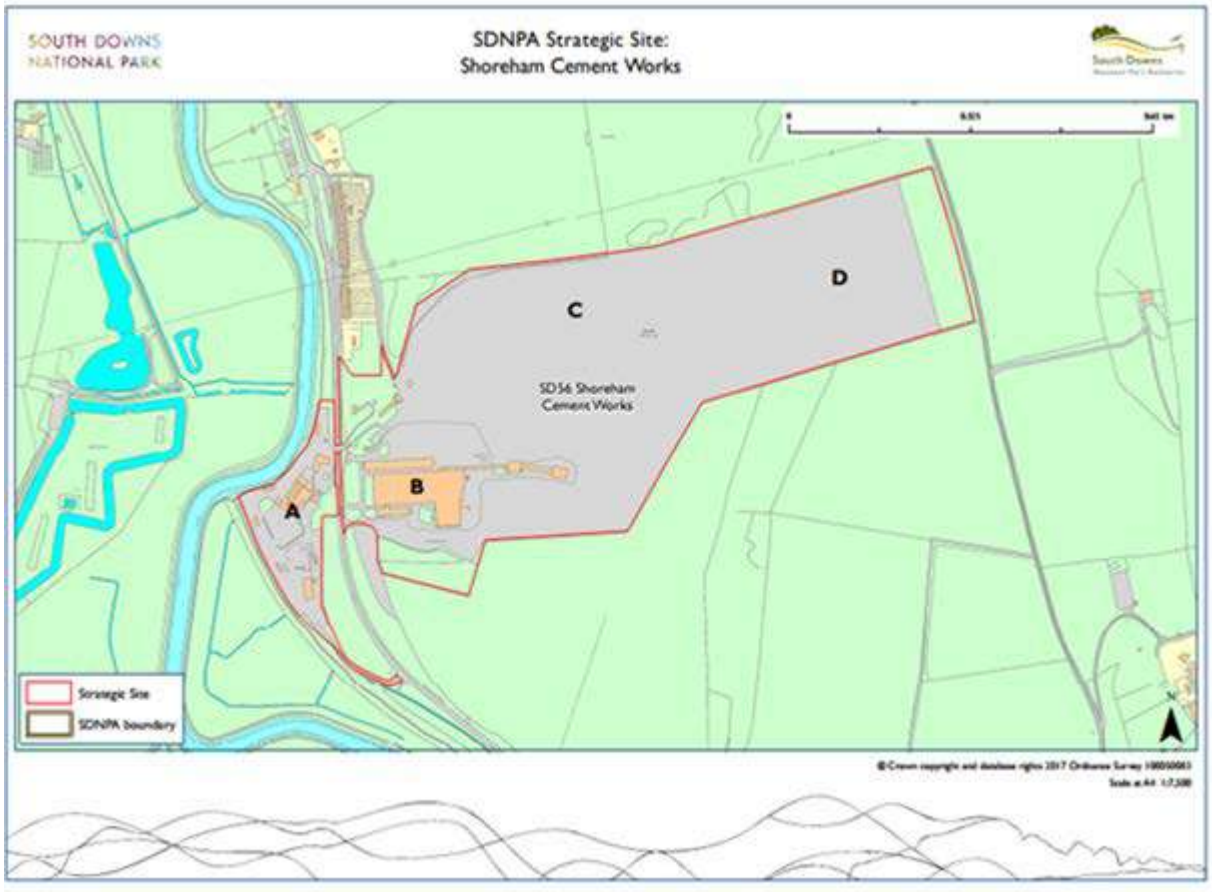
APPENDIX 1.4
NATIONAL HIGHWAYS COMMENTS ON TECHNICAL NOTE 1

Dear Amol,

Further to our meeting on Wednesday 14th July 2021, the following review relates to the Technical Note (ADL Ref: 5201 – August 2021) supplied to us on Thursday 19th August 2021 for a mixed-use development at Shoreham Cement Works, Steyning Road, Upper Beeding, BN44 3TX.

Please see below for our comments which includes advice on certain aspects such as the trip generation, distribution, and assignment which we would expect to see contained within the resulting Transport Assessment (TA). The technical note looks at three development scenarios for sites located east and west of the A283 as shown in the table and figure below:

Land Use	Scenario A	Scenario B	Scenario C
Dwellings	400 250 homes to the west of the A283, 150 homes to the east	240 150 homes to the west of the A283, 90 homes to the east	110 100 homes to the west of the A283, 10 homes to the east
A1 sqm	200	200	200
D1 sqm	2,000	2,000	0
B1 (b/c) sqm	32,000	32,000	0
B2 sqm	16,200	16,200	0
D2 sqm	0	0	18,500
C1 sqm	7,500	7,500	37,000
B8 sqm	20,000	20,000	0



Technical Note - TN5201 – prepared by ADL dated August 2021

Site Location

We note that the site is located approximately 2.2 kilometres north of the Shoreham Bypass along the A27 and therefore does not abut the SRN. Highways England will be concerned with any proposals which have the potential to impact on the safe and efficient operation of the SRN, in this case, particularly within vicinity of the A27.

Development Proposals

The proposed mixed-use development is split between two parcels of land which has proposals for the following land-uses:

- C3 - Dwellings;
- E(a) - shops (formerly A1);
- F1 - Non-residential institutions (formerly D1);
- E(d) - Leisure (formerly D2);
- B1(b/c) - Business;
- B2 - General Industrial;
- B8 - Storage and Distribution; and
- C1 - Hotels

The development to the east and west of the A283 constitutes the following land-use and is split across the three scenarios as shown in Table 3A/B below:

Table 3A Development Scenarios – East of A283

	Scenario A	Scenario B	Scenario C
Dwellings	150	90	10
A1 (sqm)	200	200	200
D1 (sqm)	2,000	2,000	0
B1 (b/c) (sqm)	32,000	32,000	0
B2 (sqm)	16,200	16,200	0
D2 (sqm)	0	0	18,500
C1 (sqm)	7,500	7,500	37,000
B8 (sqm)	20,000	20,000	0

Table 3B Development Scenario – West of A283

	Scenario A	Scenario B	Scenario C
Dwelling	250	150	100

All further comments are based on the above development quantum.

Development Trip rates and Trip Generation

Extant Use

For the past five years the main cement works site has a site area of 6.23 hectares and generates a maximum of 100 HGV two-way movements on a typical weekday, the peak hours would equate to 10% of the daily trips resulting in 10 two-way HGV movements during 08:00 – 09:00 and 17:00 – 18:00.

The land located to the west of the A283 has a site area of 3.45 hectares and currently has planning permission granted for the site to be used for B1, B2 and B8 uses (business, industry and storage) until January 2025 with 30 businesses based at this site at present.

In terms of trip generation, the site is estimated to see a total of **92 two-way** trips in the AM peak and **74 two-way** trips in the PM peak as shown in Table 2C below:

Table 2C Total Permitted Vehicular Trip Generation

		In	Out
Cement Works Site	08:00-09:00	5	5
	17:00-18:00	5	5
West of A283	08:00-09:00	60	22
	17:00-18:00	17	47

It is unclear whether the trips have been netted off from the extant use or whether they have been incorporated into the proposed use. This will need clarification as to avoid double-counting into calculations.

ACTION: Applicant to provide further clarification whether permitted trips from the extant use of the development has been subtracted from the proposed use to provide a net trip generation to account for the current level of trip generation at the site. The approach taken to consider trips associated with the existing site use must be clearly documented within the overall trip generation calculations. The approach taken must be clearly justified.

Proposed Use

The proposed trip rates and trip generation for the weekday peak periods (08:00 – 09:00 and 17:00 – 18:00) have been determined utilising multi-modal surveys across the UK excluding, London, Wales and Scotland for sites specific to edge of town and suburban where edge of town sites were not available. This is considered to be an acceptable method for obtaining trip rates.

Based on our calculations using the applicants proposed vehicle trip rates, for both parcels of land as a whole, the predicted traffic generation is as follows (note no trip internalisation has been factored in the below calculations):

- Scenario A is predicted to generate a total of **500 two-way** vehicular trips in the morning peak hour and **448 two-way** vehicular trips in the evening peak hour.
- Scenario B is predicted to generate a total of **469 two-way** vehicular trips in the morning peak hour and **420 two-way** vehicular trips in the evening peak hour.
- Scenario C is predicted to generate a total of **379 two-way** vehicular trips in the morning peak hour and **290 two-way** vehicular trips in the evening peak hour.

To confirm the acceptability of this data, an independent assessment within TRICS was also undertaken and we note that Scenario C shows 18,500sqm of E(d) – Leisure has not been incorporated within the TRICS trip rates. This will be required for inclusion as this is likely to impact trip generation. The trip rates for all other land uses are accepted.

ACTION: Applicant should provide the necessary TRICS data for E(d) – Leisure use and incorporate it within an updated Technical Note for Highways England to review.

Internalised Trips – Primary School

TRICS has been used in combination with 2011 Census data to formulate a calculation to understand the proportion of internalised trips based on the number of dwellings throughout scenario A, B and C.

Scenario A presents 400 homes with an occupancy of a total of 934 people living within the development and 157 primary school children. This calculation is based on Census data proportioning by comparing the total population of West Sussex with the number of primary school aged children within this region and then applying this ratio to the development scenarios, which is an accepted method. TRICS shows a ratio of 1 pupil to every 6sqm of school area. For a proposed area of 2,000sqm this shows capacity for the school to accommodate 333 pupils. Of the total capacity for 333, 157 pupils are to originate from within the development, leaving 176 pupils travelling from nearby areas such as Upper Beeding and Steyning. This equates to **47.1% internalised trips** and **52.9% external trips** from surrounding areas.

Scenario B presents 240 homes with an occupancy of a total of 560 people living within the development and 94 primary school children, based on Census data and the method described above. TRICS shows a ratio of 1 pupil to every 6sqm of school area. For a proposed area of 2,000sqm this shows capacity for the school to accommodate 333 pupils. Of the total capacity for 333, 94 pupils are to originate from within the development, leaving 239 pupils travelling from nearby areas such as Upper Beeding and Steyning. This equates to **28.2% internalised trips** and **71.8% external trips** from surrounding areas of the development.

Scenario C presents 110 homes but has no proposals for a school development.

In summary, the internalised trips from a residential point of view is accepted as sensible however, these calculations will need to be factored into the trip generation to reflect the degree of trip internalisation.

ACTION: Applicant to provide calculations for generating total trip generation, with a clear method showing the number of discounted internal education trips for each of the three proposed development scenarios.

Internalised Trips – Employment Uses

In terms of employment uses, paragraph 4.2.1 states that 2011 Census data reveals that out of 899 people that travelled to this SOA to work, 170 live in this SOA which equates to 19%. Whilst this may be the case, evidence is required to show that the selected parameters are representative of the characteristics of the proposed development, given the mixed-use nature of the proposal.

Convenience Store Trips

Paragraph 4.3.1 states that the proposed convenience store would be a local facility predominantly used by its residents and staff living and working within the development. It is accepted that this type of facility would be unlikely to attract external trips.

Distribution and Assignment of Proposed Development Traffic

As was agreed by South Downs National Park Authority (SDNPA) and WSCC, for residential purposes, a split between Census journey to work data and Mobile Network Data for home-based trips is to be utilised. For all other purposes, it was agreed that Mobile Network Data was appropriate. Whilst the approach of using a combination of Mobile Network Data and Census journey to work data is agreeable, it is not clearly presented within the below tables. Clarification is required so it is clearly identifiable what each of the percentage splits refer to.

Table 5A Residential Trip Distribution Split

	In		O
	Census HBW	MND HBO	Census HBW
AM Peak Hours	4%	96%	58%
PM Peak Hours	52%	48%	0%

Table 5B Employment Trip Distribution Split

	In		O
	Census	MND	Census

Additionally, the previous TN (dated July 2021) had shown the distribution and assignment in Appendices 3.1 and 3.2 which has since been removed. This should be updated to reflect the changes to the distribution methodology.

A further review will be required in autumn to determine if/whether there are any subsequent changes in traffic due to the COVID-19 restrictions.

ACTION: Applicant to provide clarification on Tables 5A and 5B. Additionally, distribution and assignment as per the previous Appendices 3.1 and 3.2 will need to be provided reflecting the changes to the methodology.

Traffic Flows

Observed traffic flows with corresponding queue length data will be required for review to understand how trips produced from the proposed development impacts the nearest SRN junction, namely the A27 Shoreham Bypass. The applicant should be aware that the current guidance from Highways England states that traffic data collection may be appropriate from September 2021, subject to no further changes in government's pandemic-related policies. However, caveats and sensitivity testing are likely to be required, whilst ongoing data collection (possibly post-submission) may also be needed.

Additional Comments

A Construction Management Plan will be required to minimise the impact on the SRN and to ensure that the A27 continues to be an effective part of the national system of routes for through traffic in accordance with Section 10 of the Highways Act 1980 and to satisfy the reasonable requirements of road safety.

ACTION: A construction management plan will be required.

Conclusion

As detailed above, a number of issues have been identified which will require further consideration and additional information to be submitted for review, as set out in the required actions.

We look forward to continuous engagement with the project and being consulted as the proposals develop.

Thank you again for consulting at the pre-application stage with Highways England. If you have any queries, please do not hesitate to contact us at planningse@highwaysengland.co.uk.

Kind regards

David
David Bowie
Area 4 Spatial Planning Manager (Acting)
Tel: +44 (0) 7900 056130
National Highways | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ
Web: http://www.highwaysengland.co.uk
Please note that for the foreseeable future we are all working from home. All meetings will be via telephone, Skype or similar. We will continue to seek to work to our statutory and other deadlines. In case of IT or other issues, as a precaution, please copy all emails to PlanningSE@highwaysengland.co.uk . Thank you.

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https://www.gov.uk/government/organisations/highways-england | info@highwaysengland.co.uk

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TECHNICAL NOTE 2
SHOREHAM CEMENT WORKS
COMMITTED DEVELOPMENT ASSESSMENT
(ADL REF: 5201, 8TH SEPTEMBER 2021)

1.0 INTRODUCTION

1.1 ADL Traffic & Highways Engineering Ltd have been commissioned by South Downs National Park Authority (SDNPA) to undertake a transport study of the development scenarios at Shoreham Cement Works.

1.2 Discussions took place between SDNPA, WSCC and ADL on the matter of committed developments in August and September 2021.

1.3 This Technical Note 2 (TN2) summarises this discussion and provides the approach that has been agreed with SDNPA and WSCC.

2.0 COMMITTED DEVELOPMENT IN ADUR & WORTHING COUNCILS

2.1 Planning Policy Manager Mr T Moody of Adur & Worthing Councils provided a list of committed developments from 2018. In addition to these committed developments, Mr Moody also provided a list of allocated developments within emerging Worthing Local Plan.

2.2 Following Local Plan Allocation sites within Adur Local Plans were also noted:

- 1,100 dwellings allocated at Shoreham Harbour Regeneration Area: 1100 (minus the Free Wharf and Kingston Wharf consents);
- Land at West Sompting;
- New Monks Farm – as IKEA has announced that this store will not be delivered, the Council are seeking employment floorspace on the former IKEA land (Consistent with the Adur Local Plan 2017 Policy 5);
- AWDM/2139/20 Pilot Pub – Consent granted on 6th April 2021 for 34 dwellings.

2.3 A list of all committed developments and Local Plan Allocations is provided in Appendix 1.0.

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Company No. 3121125 | VAT Registration No. 674 4017 36

2.4 The proposed methodology that has been accepted by WSCC is to represent committed developments and Local Plan allocations within overall growth for small to medium sites and to those that lie outside the immediate study area (i.e., beyond the area where the junction impacts are considered).

2.5 Therefore, except for New Monks Farm development and Shoreham Airport development, other sites will be represented within overall growth. New Monks Farm and Shoreham Airport development flows will be added manually and hence these developments are not listed in Appendix 1.0.

2.6 The number of dwellings and jobs (based on Employment Densities 3rd Edition) that would be generated as a result of the committed developments and Local Plan allocations (bar New Monks Farm and Shoreham Airport developments) is also provided in Appendix 1.0.

2.7 Based on this, there will be a total of 1,753 homes and 592 jobs created within Adur and 2,330 homes and 3,174 jobs created within Worthing as a result of all the committed developments and Local Plan allocations (bar New Monks Farm and Shoreham Airport development).

2.8 Adding the aforementioned homes and jobs to the 2018 baseline number of homes and jobs in TEMPRO would provide 2033 baseline number of homes and jobs (bar New Monks Farm and Shoreham Airport developments). [Note: The year 2018 has been used because the developments considered have been granted planning permissions since 2018].

2.9 The TEMPRO adjusted assumptions for the year 2033 based on the above methodology are provided in Table 2A.

Table 2A 2033 TEMPRO Adjusted Assumption

		2033
Adur DC	Homes	30,665
	Jobs	27,051
Worthing DC	Homes	52,179
	Jobs	62,432

2.10 These 2033 TEMPRO adjusted assumptions have been applied to obtain growth factors for:

- 2015-2033 (for surveys along the A27 which were undertaken in 2015)

- 2017-2033 (for surveys at A283/Upper Shoreham Road roundabout which were undertaken in 2017)

2.11 Based on the above, the TEMPRO growth factors that would be used are provided in Table 2B.

Table 2B TEMPRO Growth Factors

		Trunk Road	All roads
Adur DC (2015-2033)	AM	1.1600 (urban)	1.1534 (urban)
	PM	1.1574 (urban)	1.1508 (urban)
Adur DC (2017-2033)	AM	1.1352 (urban)	1.1294 (urban)
	PM	1.1315 (urban)	1.1257 (urban)
Worthing DC (2015-2033)	AM	1.1808 (urban)	1.1741 (urban)
	PM	1.1777 (urban)	1.1710 (urban)

2.12 With regard to Horsham DC, traffic surveys were carried out in 2019. The increase in the number of households from 2019 to 2033 equates to 10,789. The TEMPRO growth factors (2019 to 2033) for Horsham DC are obtained as 1.1620 (AM) and 1.1647 (PM). These TEMPRO growth factors are considered to be reasonably robust as they are likely to include all commitments within this district.

3.0 COMMITTED DEVELOPMENTS IN SOUTH DOWNS NATIONAL PARK AUTHORITY

3.1 A list of all committed developments were provided by SDNPA's Transport Officer Mr A Pringle. This is provided in Appendix 2.0.

3.2 Further discussions on this took place between SDNPA, WSCC and ADL and it was concluded that most developments did not require a Transport Assessment or Transport Statement and as such, these developments need not be included specifically within committed development assessment, as the TEMPRO growth factors would include these committed developments.

3.3 The permitted winery extensions development (SDNP/18/04995/FUL) however would be reviewed and its development flows will be added to the 2033 baseline scenario manually (similar to New Monks Farm and Shoreham Airport developments).

4.0 NEW MONKS FARM AND SHOREHAM AIRPORT DEVELOPMENTS

4.1 The Joint Transport submitted by Vectos in support of New Monks Farm and Shoreham Airport developments contains trip distribution associated with the permitted 600 dwellings (New Monks Farm site) and 25,000 sqm of employment space (Shoreham Airport site).

4.2 It is noted that IKEA which was part of the permitted development on New Monks Farm will no longer be delivered and that Adur and Worthing Council are seeking employment floorspace on the permitted IKEA land (consistent with the Adur Local Plan 2017).

4.3 ADL considers that using employment space as allocated land use would be more appropriate than using non-IKEA non-food retail floorspace. This is because the IKEA trip generation was based on IKEA specific trip rates and these trip rates are significantly less than other non-food retail floorspace.

4.4 The planning permission along with any associated highway improvements are therefore based on IKEA trip rates. Hence, ADL is of the view that for the purpose of trip generation associated with IKEA land, one should either use IKEA trip generation as it is truly permitted trip generation or use employment floorspace as it is still an allocated use for this parcel of land.

4.5 The trip generation for employment floorspace option would be based on the trip rates for Shoreham Airport development due to the identical nature of uses.

4.6 The trip rates are provided in Table 4A.

Table 4A IKEA and Employment Floorspace

		GFA = 32,900sqm		
		In	**Out**	**2-way**
IKEA	AM Peak Hour	23	5	28
	PM Peak Hour	171	180	351
Employment Floor Space	AM Peak Hour	165	30	195
	PM Peak Hour	13	128	141

4.7 As can be seen, employment uses generate more vehicular trips during AM peak hour whilst IKEA generate more vehicular trips during PM peak hour.

4.8 There are a number of conditions attached to this planning application (XXXX) restricting the type of usage of the site by opening hours and by type of goods and to a single unit and operation. These conditions are:

> ***"53. The non-food retail store hereby approved shall not be open to the public before 10:00 am Monday to Friday (excluding browsing time and use of the ancillary restaurant from 09:30 hours)."***
>
> ***"56. Notwithstanding the provisions of Class A1 of the Town and Country Planning Act 1990, Use Classes (amendment) Order 2005, the use of the non-food retail store shall be limited to the sale of bulky goods, DIY products, furniture and homewares and those goods and departments referred to in the Retail Statement prepared by DWD and for any ancillary uses which are offered in support of the main retail function."***
>
> ***"57. The non-food retail store hereby approved shall not be divided into more than one unit and shall be used for the purposes of a single retail operator unless otherwise agreed, in writing, with the local planning authority."***

4.9 This does result in a significant restriction to which types of non-food retailers would be eligible to occupy under the existing planning permission and also to the morning activities and trip generations, thus making another retail occupation significantly less likely.

4.10 The impact of the traffic associated with IKEA on local road network has been established and permitted. Any increase in traffic associated with other retail operations on IKEA land would result in an increase in impact on local road network which is not considered or approved. Hence, using IKEA trips as permitted trips is one of the viable solutions.

4.11 Alternatively, employment use could be used given that it is the allocated use and the Council are in fact seeking employment floorspace on IKEA land. Following two scenarios have been tested:

- Scenario 1 - Office (typically)
- Scenario 2 - Parcel distribution centre

4.12 TRICS reports for these scenarios is provided in appendices 3.0 and 4.0 and the trip rates and resultant trips associated with a floor space of 32,900sqm is summarised in Table 4B.

Table 4B Employment Floorspace

		Trip rates		Vehicle Trips		
		In	Out	In	Out	2-Way
Offices	AM Peak Hr	1.752	0.159	577	52	629
	PM Peak Hr	0.108	1.482	35	487	522
Parcel Distribution Centre	AM Peak Hr	0.067	0.378	22	124	146
	PM Peak Hr	0.378	0.378	124	124	248

4.13 Table 4B shows that office use is the highest trip generator. However, these trips vary significantly from the permitted scenario and as such the traffic impact resulting from these trips has not been considered and/or accepted as part of New Monks Farm planning application.

4.14 It would not be appropriate in planning terms for Shoreham Cement Works project to deliver any improvements required to mitigate traffic impact associated with new Monks Farm site.

4.15 It is therefore ADL's opinion that using IKEA trip rates would be the most reasonable option. It is acknowledged that this is a change to what was discussed at Inception meeting and hence ADL welcomes further discussion on this with WSCC, SDNPA and National Highways.

HELP US TO #RENATURE

SOUTH DOWNS NATIONAL PARK

From: Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>
Sent: 30 September 2021 15:49
To: Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; 'Guy Parfect' <guy.parfect@westsussex.gov.uk>; 'Olamide Olayinka' <Olamide.Olayinka@westsussex.gov.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Bown, Kevin <Kevin.Bown@highwaysengland.co.uk>; Bowie, David <David.Bowie@highwaysengland.co.uk>
Subject: FW: National Highways response: Shoreham Cement Works (#14796 & #14797)

Dear all

below are National Highways' comments on technical note 2 (and technical note 1).
My apologies, I should have copied you in to the response.

Kind regards,
Elizabeth

From: Cleaver, Elizabeth
Sent: 30 September 2021 13:58
To: Amol@adltraffic.co.uk
Cc: Planning SE <planningse@highwaysengland.co.uk>; Bowie, David <David.Bowie@highwaysengland.co.uk>
Subject: National Highways response: Shoreham Cement Works, Steyning Road, Upper Beeding

For the Attention of: Amol Pisal

Site: Shoreham Cement Works, Steyning Road, Upper Beeding, BN44 3TX

Proposal: Mixed Use Development

National Highways' Ref: Tracker #14796 and #14797

Dear Mr Pisal,

Thank you for your emails of 8 and 9 September sending your Technical Note 2, and responding to our comments on your Technical Note 1 (ref 5201), respectively. This email contains our comments on both of your emails.

Email of 9-9-21 regarding Trip generation, distribution, and assignment (TN1, dated August 2021)

Thank you for your response to our comments in our email of 8 September. Please see our comments below each point in blue text.

1) Permitted trips will indeed be subtracted from the proposed use to obtain 'net' increase in trip generation. Within our final Transport Study Report, we will include this.

This is accepted and should be clearly documented within the overall trip generation calculations, with the approach taken clearly justified.

2) We are awaiting SDNPA response on what type of leisure use that they envisage to be on site. Once we have a knowledge of this, we will include it in our trip generation assessment. We are also seeking clarification from SDNPA regarding the area proposed for hotel use.

While this approach is accepted, National Highways will not be able to accept the trip rates for the Leisure land use element of Scenario C until we have reviewed them. Therefore the trip rates are not yet agreed.

ACTION: Please provide the necessary TRICS data for E(d) – Leisure use and incorporate it within an updated Technical Note for National Highways to review, or the Transport Study Report if this is to be provided prior to a Transport Assessment for the development.

3) Total trip generation (taking into account school internalised trips) will be considered within our Transport Study Report.

Noted and accepted.

4) With regard to internalised employment trips, we have already provided our evidence in the form of Census data within TN1. We do not consider any further evidence is necessary.

We do not accept a reduction in trips due to internalisation unless this is supported with appropriate evidence. Given the scale of the development proposed in each scenario and the potential difference in the nature of the proposals to the existing land uses surrounding the site, the number of trips which would remain within the SOA based on the 19% 2011 Census calculation could underestimate the level of traffic using the strategic road network in the peak periods.

ACTION: Provide further evidence justifying the use of Census 2011 data for the internalised employment trips, or undertake the assessment assuming no internalised employment trips.

5) Table 5A and 5B provides percentage split of trips that will either be distributed based on Census HBW or MND HBO (residential) and Census HBW and MND NHB (employment). Full trip distribution will be included within the Transport Study Report.

Please can you clearly define and explain the acronyms HBW, HBO and NHB within the Transport Study report to ensure all parties are able to review and understand the analysis undertaken?

ACTION: Define and explained the acronyms HBW, HBO and NHB within the Transport Study report.

6) A CMP would be prepared as part of any future planning application subject to the decision made by the LPA.

Noted and accepted.

Email of 8-9-21 sending Technical Note on committed developments and traffic growth assumptions (TN2, dated September 2021)

Please see below for our comments on this document, which includes advice on certain aspects of the technical work which we would expect to see contained within the resulting Transport Assessment (TA).

Committed Development in Adur & Worthing

The proposed methodology of representing committed developments and Local Plan allocations within overall growth for small to medium sites and to those that lie outside the immediate study area, and flows relating to New Monks Farm and Shoreham Airport developments being added manually is acceptable.

We have been able to reconcile only partially the 2033 TEMPRO adjusted assumptions figures in Table 2A of the Technical Note, as shown in Table 1 below.

Table 1 Review of Table 2a, Technical Note 2

		NH TEMPRO 2018 Base	Adjusted Assumptions		Difference
			NH Calculation	ADL Figure (TN2 Table 2a)	
Adur	Homes	28912	30644	30665	-21
	Jobs	26549	27141	27051	90
Worthing	Homes	49849	52169	52179	-10
	Jobs	59258	62432	62432	0

Given that the differences identified are very minor, we assume this is due to slight differences in TEMPRO datasets or rounding errors and consider this is unlikely to have any material impact on the overall assessment. Your adjusted TEMPRO assumptions are therefore accepted.

Committed Developments In South Downs National Park Authority

The assumption that most committed developments within Appendix 2.0 would not require a Transport Assessment or Statement and therefore will be accounted for in the non-adjusted TEMPRO growth factors is accepted.

New Monks Farm and Shoreham Airport Developments

We have reviewed the analysis undertaken to identify the most appropriate trip rates for the assessment of the land previously expected to be occupied by Ikea at the New Monks Farm site. We consider that, although Adur and Worthing Council are seeking employment floorspace on the land, unless a planning application has been made, then the current permitted use is still the consented development which includes the Ikea store. Therefore, the level of trips and impacts which other schemes should be tested against includes the consented development with Ikea.

However, given the intentions of the local authority, please also undertake an appropriate sensitivity test of the highest trip generation scenario if the land is assumed to be for employment use. Please obtain further details from the local authority regarding the maximum quantum of employment use. The assumed employment type needs to be the highest case for trip rate generation. Please consult us on your assumptions for trip generation, distribution and assignment. We note your comments regarding the trip rates for the employment space at the Shoreham Airport site, however these trip rates need to be presented to us for review so that we may ascertain whether they are appropriate for the New Monks Farm site.

ACTION: For the New Monks Farm site, the consented use (Ikea store) should be tested. Also a sensitivity test of the land being used for employment use is required, and appropriate evidence submitted for our review.

Thank you for the information you have provided in advance of this planning application. We appreciate early engagement with developers and look forward to continuing to work with you.

If you have any queries, and to send us further information, please contact us at planningse@highwaysengland.co.uk.

Kind regards,

Elizabeth Cleaver, Assistant Spatial Planning Manager
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Web: http://nationalhighways.co.uk/

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Alex Painting

From: Amol Pisal
Sent: 28 October 2021 09:16
To: Bowie, David
Cc: planningse@highwaysengland.co.uk; Lucy Howard; Alex Pringle; Guy Parfect; Olamide Olayinka; Alex Painting; Cleaver, Elizabeth; Kevin.Bown@highwaysengland.co.uk; Chiu, Kelly; JONES Derek; SouthEast_HESPA@systra.com
Subject: FW: National Highways response: Shoreham Cement Works, Steyning Road, Upper Beeding BN44 3TX

Good Morning David

Thank you for your response.

As per your email, I note that our methodology for assessing impact of Monks Farm has now been agreed by Highways England. We will proceed on this basis.

With regard to D2 leisure use, you state:

"This approach is over simplistic, a review of the website for Zip World shows that the number of 'Adventures' (activities) available varies between each site, ranging from 2 to 6. This could mean that the site with 6 Adventures available could be potentially three times busier than the site with only 2 Adventures available. Further consideration is required for a robust assessment."

Based on the above, we understand that out of the 4 Zip World sites, Aberdare has 2 Adventures, Fforest has 6 Adventures, Slate Caverns has 4 Adventures and Penhryn Quarry has 4 Adventures. Therefore, overall, Zip World has 16 Adventures across all their 4 sites. Fforest has the most number of Adventures i.e., 6 and this equates to 37.5% of the total number of Adventures.

It would not be unreasonable to assume that the number of visitors to each site would be more or less proportional to the number of Adventures in each site. Therefore, out of the total 400K visitors, Fforest site could attract 400K x 0.375 = 150K visitors.

"How have these assumptions regarding average car/coach occupancy, and the split between the two, been derived?"

Until we undertake detailed traffic surveys at Zip World, we would not be able to determine the exact mode split. Whilst the COVID restrictions are lifted, we are of the view that certain sites may continue to operate at less capacity than pre-COVID times and hence it would not be appropriate to undertake traffic surveys in 2021. Furthermore, the submission of transport study timescales would not provide us sufficient time to undertake the survey and analysis. We would however recommend within our transport study that any future planning application(s) associated with the D2 use would need to be accompanied by a detailed traffic survey at a comparable site.

In 2016/17, ADL assisted a development proposals in Ashford (Kent) for a tourist attraction based on a model railway. Whilst I appreciate that this facility is quite different to what is being proposed on Shoreham Cement Works, it still provides some proxy for mode split given that it is a destination that would attract tourist. For this site, Kent County Council suggested that mode split based on 60% cars, 40% coach/train should be used as sensitivity test.

We have used Ashford site purely to come up with assumptions for mode split. On the basis that the site is remote from any major public transport facility, our assumption based on 80% arriving by car and 20% by coach is robust.

APPENDIX 1.7
NATIONAL HIGHWAYS COMMENTS ON LEISURE USE TRIPS

With regard to occupancies, given the leisure use of the site, it would not be unreasonable to assume an occupancy of 3 people per car. Coach capacities vary from 38 to 79 depending on various size of the coaches. Hence, coach occupancy of 50 people per coach is considered to be a reasonable assumption.

Kind regards

Amol Pisal | Director

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---

From: Bowie, David <David.Bowie@highwaysengland.co.uk>
Sent: 27 October 2021 11:39
To: Amol Pisal <Amol@adltraffic.co.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Guy Parfect <guy.parfect@westsussex.gov.uk>; 'Olamide Olayinka' <Olamide.Olayinka@westsussex.gov.uk>; Alex Painting <alex@adltraffic.co.uk>; Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>; Bown, Kevin <Kevin.Bown@highwaysengland.co.uk>; Chiu, Kelly <Kelly.Chiu@highwaysengland.co.uk>; JONES Derek <djones1@systra.com>; SouthEast_HESPA@systra.com
Subject: RE: National Highways response: Shoreham Cement Works, Steyning Road, Upper Beeding BN44 3TX

For attention of:	Amol Pisal
Site:	Shoreham Cement Works, Steyning Road, Upper Beeding, BN44 3TX
Proposal:	Mixed Use Development
Your Reference:	N/A
National Highways' Ref:	Tracker #15018

Dear Amol,

Thank you for your email 6 October 2021 responding to the comments we made on 30 September 2021. Please see below our further comments in blue text in relation to your email.

Email dated 6 October 2021 RE: National Highways response: Shoreham Cement Works, Steyning Road, Upper Beeding

New Monks Farm

Following my email to you of 1st October, we had a meeting with Moira Hayes - Adur Planning Policy Manager to discuss New Monks Farm.

We agreed that IKEA trips are the consented trips and therefore these should be tested.

With regard to alternative employment use on IKEA land, Moira advised that we should use the employment assumptions that were tested within Local Plan modelling. For this, Moira directed us to the Second Addendum Revised Reissue September 2016. Please see Moira's email attached for reference.

Based on that email, for the purpose of Shoreham Cement Works transport study, we will use the employment breakdown for New Monks Farm as:

- B1 - 333 jobs
- B2 – 143 jobs
- B8 – 0 jobs

I note that Tables 2.7 and 2.8 of Second Addendum Revised Reissue September 2016 provide trip generation for New Monks Farm site. However, this trip generation includes both 600 homes and the employment uses all in one. Subtracting residential trips based on trip rates for residential element (provided in Table 2.6), we were able to separate out the employment trip generation as follows:

	In	Out
AM peak hour	132	14
PM peak hour	9	107

As can be seen, the employment trips in the AM peak are significantly higher than IKEA trips and vice versa is true during PM peak.

Hence, we have decided to go with the following for representing New Monks Farm's non-residential element for our Shoreham Transport Study project:-

- For AM peak hour = we will use employment trips i.e., 132 inbound and 14 outbound
- For PM peak hour = we will use IKA trips i.e., 171 inbound and 180 outbound (taken from Vectos' Joint TA)

This approach is accepted.

With regard to D2 Leisure use on site, following is our methodology:-

The land owner's aspiration with regard to D2 use, we have done some background research on Zip World in North Wales. Zip World has 4 sites in Wales (Zip World Fforest in Betws-y-Coed, Zip World Penrhyn Quarry in Bethesda, Zip World Slare Caverns in Blaenau Ffestiniog and Zip World Tower in Aberdare). Having reviewed the research report by North Wales Tourism (see attached), it appears that since its inception (year 2011), Zip World attracted over 1 million visitors by the year 2018. Therefore, this equates to approximately 125K visitors per year.

However, in 2019, online media sources confirmed that the number of visitors increased to 400K in 2018 across all their sites. Based on this, an average of 100K visitors per year per site could be calculated. In our experience, this is a robust assessment to calculate trip generation.

This approach is over simplistic, a review of the website for Zip World shows that the number of 'Adventures' (activities) available varies between each site, ranging from 2 to 6. This could mean that the site with 6 Adventures available could be potentially three times busier than the site with only 2 Adventures available. Further consideration is required for a robust assessment.

ACTION: Provide further evidence to justify the anticipated number of visitors per year for the proposed site.

For the purposes of trip generation, we will be making the following assumption:

- Average car occupancy = 3 visitors per car
- Average coach occupancy = 50 visitors per coach

- 80% would arrive in cars and the remaining 20% by coach

How have these assumptions regarding average car/coach occupancy, and the split between the two, been derived?

Action: Supporting evidence in relation to average occupancy and split between cars/coaches to be provided for National Highways to review.

- For robust assessment, 30-week activity period (Zip World is open for more than this period).

Based on the above assumptions, I calculate the following:

- 80,000 visitors in cars OR 26,667 cars per year OR 890 cars per week OR 127 cars per day
- 20,000 visitors in coach OR 400 coaches per year OR 13 coaches per week OR 2 coaches per day

These figures are not accepted due to outstanding issues already commented upon above regarding total trip numbers, average vehicle occupancy and vehicle split.

Furthermore, whilst a 30-week activity period is to be assessed, there are likely to be peaks within that 30-week period, for example, during school holidays. This should be taken into account in order for the assessment to be robust.

Action: Potential peak activity periods, such as during school holidays, should be assessed.

There is likely that some proportion of trips would arrive later in the day and stay on site in the proposed hotel, to spend the next day at the leisure facility; whilst a large number of people would spend between half to full day on site, depending on the leisure activities.

In order to gauge the arrival departure profile for a weekday, we tested various land uses on TRICS. Both Guy and us at ADL discounted the use of Leisure Park, because leisure park sites in TRICS included multiplex cinemas, multiple restaurants usually including a drive-through and most of them include bowling centres which resulted in a heavy emphasis on evening use.

Having tested Leisure Centre uses on site as per Guy's suggestions, we agreed that leisure centre use produces a more suitable daily profile than the leisure park use. Leisure Centres admittedly differ from the proposed use in that their use is heavily based on swimming pools. However, the pattern of their usage in terms of times of day and length of stay may be reasonably similar, albeit there is still significant evening use, but earlier in the evening than the leisure park developments.

I have attached the leisure centre arrival/departure profile from TRICS that Guy has sent us. Only edge of town sites with extended the date range to obtain a sample of six sites were chosen.

We propose that we would use the arrival/departure pattern obtained from leisure centre use and distribute the proposed Leisure use trips discussed above (i.e., 127 cars inbound and 127 cars

outbound on a daily) to determine the traffic associated with the proposed D2 Leisure Use during AM and PM peak hours.

This approach is not currently accepted. Further evidence is to be provided to demonstrate that the arrival/departure pattern for a leisure centre is similar to that of Zip World, if that is the proposed use for the D2 leisure use. Arrivals and departures to a typical leisure centre would be expected to be fairly evenly dispersed whereas for Zip World, set times are booked in advance for each activity and this will mean large numbers of arrivals and departures at the same times, which would have a greater impact.

ACTION: Further information regarding the nature of the proposed D2 development to be submitted for review, including expected arrival/departure patterns.

Conclusion

As detailed above, a number of issues have been identified which will require further consideration and additional information to be submitted for review, either as part of a further pre-application consultation, or within the TA report to accompany the proposed planning application.

We look forward to continuous engagement with the project and being consulted as the proposals develop.

Thank you again for consulting at the pre-application stage with National Highways. If you have any queries, please do not hesitate to contact us at planningse@highwaysengland.co.uk

Kind regards

David
David Bowie
Area 4 Spatial Planning Manager (Acting)
Tel: +44 (0) 7900 056130
National Highways | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ
Web: http://www.highwaysengland.co.uk
Please note that for the foreseeable future we are all working from home. All meetings will be via telephone, Skype or similar. We will continue to seek to work to our statutory and other deadlines. In case of IT or other issues, as a precaution, please copy all emails to PlanningSE@highwaysengland.co.uk . Thank you.

From: Amol Pisal [mailto:Amol@adltraffic.co.uk]
Sent: 26 October 2021 17:11
To: Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Bowie, David <David.Bowie@highwaysengland.co.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Guy Parfect <guy.parfect@westsussex.gov.uk>; 'Olamide Olayinka' <Olamide.Olayinka@westsussex.gov.uk>; Alex Painting <alex@adltraffic.co.uk>
Subject: RE: National Highways response: Shoreham Cement Works, Steyning Road, Upper Beeding

Dear Elizabeth

Hope you are well.

I was wondering if you had comments on our email dated 6th October 2021.

Due to the timescales, we have proceeded on the assumptions within this email; which I consider our very robust,.

Please let us know if you have any queries. We look forward to hearing from you.

Thank you.

Kind regards

Amol Pisal | Director

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---

From: Amol Pisal
Sent: 06 October 2021 19:21
To: Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Bowie, David <David.Bowie@highwaysengland.co.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Guy Parfect <guy.parfect@westsussex.gov.uk>; 'Olamide Olayinka' <Olamide.Olayinka@westsussex.gov.uk>; Alex Painting <alex@adltraffic.co.uk>
Subject: RE: National Highways response: Shoreham Cement Works, Steyning Road, Upper Beeding

Hi Elizabeth

This is a further email on New Monks Farm following meeting with Moira Hayes and proposed D2 Leisure Use Trip Generation.

New Monks Farm

Following my email to you of 1st October, we had a meeting with Moira Hayes - Adur Planning Policy Manager to discuss New Monks Farm.

We agreed that IKEA trips are the consented trips and therefore these should be tested.

With regard to alternative employment use on IKEA land, Moira advised that we should use the employment assumptions that were tested within Local Plan modelling. For this, Moira directed us to the Second Addendum Revised Reissue September 2016. Please see Moira's email attached for reference.

Based on that email, for the purpose of Shoreham Cement Works transport study, we will use the employment breakdown for New Monks Farm as:

- B1 - 333 jobs
- B2 – 143 jobs
- B8 – 0 jobs

I note that Tables 2.7 and 2.8 of Second Addendum Revised Reissue September 2016 provide trip generation for New Monks Farm site. However, this trip generation includes both 600 homes and the employment uses all in one. Subtracting residential trips based on trip rates for residential element (provided in Table 2.6), we were able to separate out the employment trip generation as follows:

	In	Out
AM peak hour	132	14
PM peak hour	9	107

As can be seen, the employment trips in the AM peak are significantly higher than IKEA trips and vice versa is true during PM peak.

Hence, we have decided to go with the following for representing New Monks Farm's non-residential element for our Shoreham Transport Study project:-

- For AM peak hour = we will use employment trips i.e., 132 inbound and 14 outbound
- For PM peak hour = we will use IKA trips i.e., 171 inbound and 180 outbound (taken from Vectos' Joint TA)

With regard to **D2 Leisure use** on site, following is our methodology:-

The land owner's aspiration with regard to D2 use, we have done some background research on Zip World in North Wales. Zip World has 4 sites in Wales (Zip World Fforest in Betws-y-Coed, Zip World Penrhyn Quarry in Bethesda, Zip World Slare Caverns in Blaenau Ffestiniog and Zip World Tower in Aberdare). Having reviewed the research report by North Wales Tourism (see attached), it appears that since its inception (year 2011), Zip World attracted over 1 million visitors by the year 2018. Therefore, this equates to approximately 125K visitors per year.

However, in 2019, online media sources confirmed that the number of visitors increased to 400K in 2018 across all their sites. Based on this, an average of 100K visitors per year per site could be calculated. In our experience, this is a robust assessment to calculate trip generation.

For the purposes of trip generation, we will be making the following assumption:

- Average car occupancy = 3 visitors per car
- Average coach occupancy = 50 visitors per coach

- 80% would arrive in cars and the remaining 20% by coach

- For robust assessment, 30-week activity period (Zip World is open for more than this period).

Based on the above assumptions, I calculate the following:

- 80,000 visitors in cars **OR** 26,667 cars per year **OR** 890 cars per week **OR** 127 cars per day
- 20,000 visitors in coach **OR** 400 coaches per year **OR** 13 coaches per week **OR** 2 coaches per day

There is likely that some proportion of trips would arrive later in the day and stay on site in the proposed hotel, to spend the next day at the leisure facility; whilst a large number of people would spend between half to full day on site, depending on the leisure activities.

In order to gauge the arrival departure profile for a weekday, we tested various land uses on TRICS. Both Guy and us at ADL discounted the use of Leisure Park, because leisure park sites in TRICS included multiplex cinemas, multiple restaurants usually including a drive-through and most of them include bowling centres which resulted in a heavy emphasis on evening use.

Having tested Leisure Centre uses on site as per Guy's suggestions, we agreed that leisure centre use produces a more suitable daily profile than the leisure park use. Leisure Centres admittedly differ from the proposed use in that their use is heavily based on swimming pools. However, the pattern of their usage in terms of times of day and length of stay may

be reasonably similar, albeit there is still significant evening use, but earlier in the evening than the leisure park developments.

I have attached the leisure centre arrival/departure profile from TRICS that Guy has sent us. Only edge of town sites with extended the date range to obtain a sample of six sites were chosen.

We propose that we would use the arrival/departure pattern obtained from leisure centre use and distribute the proposed Leisure use trips discussed above (i.e., 127 cars inbound and 127 cars outbound on a daily) to determine the traffic associated with the proposed D2 Leisure Use during AM and PM peak hours.

Kind regards

Amol Pisal | Director

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---

From: Amol Pisal
Sent: 01 October 2021 12:14
To: Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Bowie, David <David.Bowie@highwaysengland.co.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; 'Olamide Olayinka' <Olamide.Olayinka@westsussex.gov.uk>; Alex Painting <alex@adltraffic.co.uk>
Subject: RE: National Highways response: Shoreham Cement Works, Steyning Road, Upper Beeding

Dear Elizabeth

Thank you for your comments.

It appears that we have a resolution on a number of items that we have put forward with our TN1 and TN2.

The items that remain to be further discussed are:

1. Internalised employment trips
2. New Monks Farm – non-residential element

With regard to internalised employment trips, given the scale and size of the developments, it is highly likely that there will be a small proportion of residents who live on site would find work within the proposed employment uses. Apart from Census 2011, we currently do not have any other evidence. Whilst we still consider our assumption is robust, especially, this result in discounting no more than 15 trips in the peak hours in the busiest scenario, in order to achieve a resolution, we would agree to not applying any internalisation.

On the matter of New Monks Farm, I note that you agree that IKEA trips should be tested as consented trips. I also note that you require us to undertake sensitivity test by using employment uses. After an internal discussion, we have decided that we will not be undertaking any sensitivity test for New Monks Farm, other than using IKEA trips. This is because the traffic impact of IKEA trips have been considered and accepted; and mitigation measures being implemented. Impact of any other uses on New Monks Farm should have no bearing on Shoreham Cement Works assessment; given that we are undertaking traffic impact study of development scenarios at Shoreham Cement Works and not at New Monks Farm.

Kind regards

Amol Pisal | Director

TRAFFIC & HIGHWAYS ENGINEERING LIMITED

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M 0752 54 77819| T 01454 332100 | amol@adltraffic.co.uk | www.adltraffic.co.uk

From: Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>
Sent: 30 September 2021 13:58
To: Amol Pisal <Amol@adltraffic.co.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Bowie, David <David.Bowie@highwaysengland.co.uk>
Subject: National Highways response: Shoreham Cement Works, Steyning Road, Upper Beeding

For the Attention of: Amol Pisal

Site: Shoreham Cement Works, Steyning Road, Upper Beeding, BN44 3TX

Proposal: Mixed Use Development

National Highways' Ref: Tracker #14796 and #14797

Dear Mr Pisal,

Thank you for your emails of 8 and 9 September sending your Technical Note 2, and responding to our comments on your Technical Note 1 (ref 5201), respectively. This email contains our comments on both of your emails.

Email of 9-9-21 regarding Trip generation, distribution, and assignment (TN1, dated August 2021)

Thank you for your response to our comments in our email of 8 September. Please see our comments below each point in blue text.

1) Permitted trips will indeed be subtracted from the proposed use to obtain 'net' increase in trip generation. Within our final Transport Study Report, we will include this.

This is accepted and should be clearly documented within the overall trip generation calculations, with the approach taken clearly justified.

2) We are awaiting SDNPA response on what type of leisure use that they envisage to be on site. Once we have a knowledge of this, we will include it in our trip generation assessment. We are also seeking clarification from SDNPA regarding the area proposed for hotel use.

While this approach is accepted, National Highways will not be able to accept the trip rates for the Leisure land use element of Scenario C until we have reviewed them. Therefore the trip rates are not yet agreed.

ACTION: Please provide the necessary TRICS data for E(d) – Leisure use and incorporate it within an updated Technical Note for National Highways to review, or the Transport Study Report if this is to be provided prior to a Transport Assessment for the development.

3) Total trip generation (taking into account school internalised trips) will be considered within our Transport Study Report.

Noted and accepted.

4) With regard to internalised employment trips, we have already provided our evidence in the form of Census data within TN1. We do not consider any further evidence is necessary.

We do not accept a reduction in trips due to internalisation unless this is supported with appropriate evidence. Given the scale of the development proposed in each scenario and the potential difference in the nature of the proposals to the existing land uses surrounding the site, the number of trips which would remain within the SOA based on the 19% 2011 Census calculation could underestimate the level of traffic using the strategic road network in the peak periods.

ACTION: Provide further evidence justifying the use of Census 2011 data for the internalised employment trips, or undertake the assessment assuming no internalised employment trips.

5) Table 5A and 5B provides percentage split of trips that will either be distributed based on Census HBW or MND HBO (residential) and Census HBW and MND NHB (employment). Full trip distribution will be included within the Transport Study Report.

Please can you clearly define and explain the acronyms HBW, HBO and NHB within the Transport Study report to ensure all parties are able to review and understand the analysis undertaken?

ACTION: Define and explained the acronyms HBW, HBO and NHB within the Transport Study report.

6) A CMP would be prepared as part of any future planning application subject to the decision made by the LPA.

Noted and accepted.

Email of 8-9-21 sending Technical Note on committed developments and traffic growth assumptions (TN2, dated September 2021)

Please see below for our comments on this document, which includes advice on certain aspects of the technical work which we would expect to see contained within the resulting Transport Assessment (TA).

<u>Committed Development in Adur & Worthing</u>

The proposed methodology of representing committed developments and Local Plan allocations within overall growth for small to medium sites and to those that lie outside the immediate study area, and flows relating to New Monks Farm and Shoreham Airport developments being added manually is acceptable.

We have been able to reconcile only partially the 2033 TEMPRO adjusted assumptions figures in Table 2A of the Technical Note, as shown in Table 1 below.

Table 1 Review of Table 2a, Technical Note 2

		NH TEMPRO 2018 Base	Adjusted Assumptions		Difference
			NH Calculation	ADL Figure (TN2 Table 2a)	
Adur	Homes	28912	30644	30665	-21
	Jobs	26549	27141	27051	90
Worthing	Homes	49849	52169	52179	-10
	Jobs	59258	62432	62432	0

Given that the differences identified are very minor, we assume this is due to slight differences in TEMPRO datasets or rounding errors and consider this is unlikely to have any material impact on the overall assessment. Your adjusted TEMPRO assumptions are therefore accepted.

Committed Developments In South Downs National Park Authority

The assumption that most committed developments within Appendix 2.0 would not require a Transport Assessment or Statement and therefore will be accounted for in the non-adjusted TEMPRO growth factors is accepted.

New Monks Farm and Shoreham Airport Developments

We have reviewed the analysis undertaken to identify the most appropriate trip rates for the assessment of the land previously expected to be occupied by Ikea at the New Monks Farm site. We consider that, although Adur and Worthing Council are seeking employment floorspace on the land, unless a planning application has been made, then the current permitted use is still the consented development which includes the Ikea store. Therefore, the level of trips and impacts which other schemes should be tested against includes the consented development with Ikea.

However, given the intentions of the local authority, please also undertake an appropriate sensitivity test of the highest trip generation scenario if the land is assumed to be for employment use. Please obtain further details from the local authority regarding the maximum quantum of employment use. The assumed employment type needs to be the highest case for trip rate generation. Please consult us on your assumptions for trip generation, distribution and assignment. We note your comments regarding the trip rates for the employment space at the Shoreham Airport site, however these trip rates need to be presented to us for review so that we may ascertain whether they are appropriate for the New Monks Farm site.

ACTION: For the New Monks Farm site, the consented use (Ikea store) should be tested. Also a sensitivity test of the land being used for employment use is required, and appropriate evidence submitted for our review.

Thank you for the information you have provided in advance of this planning application. We appreciate early engagement with developers and look forward to continuing to work with you.

If you have any queries, and to send us further information, please contact us at planningse@highwaysengland.co.uk.

Kind regards,

Elizabeth Cleaver, Assistant Spatial Planning Manager
National Highways | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ
Web: http://nationalhighways.co.uk/

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https://www.gov.uk/government/organisations/highways-england | info@highwaysengland.co.uk

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https://www.gov.uk/government/organisations/highways-england | info@highwaysengland.co.uk

Registered in England and Wales no 9346363 | Registered Office: Bridge House, 1 Walnut Tree Close, Guildford, Surrey GU1 4LZ

Consider the environment. Please don't print this e-mail unless you really need to.

Alex Painting

From: Guy Parfect <guy.parfect@westsussex.gov.uk>
Sent: 01 October 2021 17:16
To: Amol Pisal; Lucy Howard; Alex Pringle; Olamide Olayinka
Cc: Alex Painting
Subject: RE: Development Scenarios

Thank you Amol

This does seem to me a good way forward. The reporting will have to explain that although the trip rates are based largely on swimming pools, whilst none is proposed for the site, we consider that it makes for a suitable proxy for the types of leisure proposed on site, in terms of arrival/departure profiles and some flexibility on hours of operation.

Kind regards

Guy

Guy Parfect | Senior Planner, Planning Services, Economy Planning and Place Directorate, West Sussex County Council
Location: Ground Floor, Northleigh, County Hall, West Street, Chichester, PO19 1RH
Internal: 26442 | External: +44 (0) 330 2226442 | E-mail: guy.parfect@westsussex.gov.uk

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From: Amol Pisal <Amol@adltraffic.co.uk>
Sent: 01 October 2021 16:59
To: Guy Parfect <guy.parfect@westsussex.gov.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Olamide Olayinka <Olamide.Olayinka@westsussex.gov.uk>
Cc: Alex Painting <alex@adltraffic.co.uk>
Subject: RE: Development Scenarios

Hi Guy

I agree with your assessment. In fact, we were also inclined to go with leisure centre use in the first instance; however, due to differences in their use with the proposed use, we discounted this.

On hind sight, I consider using the arrival departure profile for leisure centre uses and distributing the trips accordingly would provide us with a more appropriate results.

The daily number of vehicular trips would be based up on original assumption of 100K visitors per year to the leisure use. @Lucy and @Alex, please could you confirm if this is a correct assumption to move forward?

Thank you.

Kind regards

Amol Pisal | Director
TRAFFIC & HIGHWAYS ENGINEERING LIMITED

APPENDIX 1.8
WEST SUSSEX COUNTY COUNCIL
COMMENTS ON LEISURE USE TRIPS

From: Guy Parfect <guy.parfect@westsussex.gov.uk>
Sent: 01 October 2021 13:24
To: Amol Pisal <Amol@adltraffic.co.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Olamide Olayinka <Olamide.Olayinka@westsussex.gov.uk>
Cc: Alex Painting <alex@adltraffic.co.uk>
Subject: RE: Development Scenarios

Hi Amol

I have examined the TRICS rates which you have provided. The leisure park sites are showing a heavy emphasis on evening use, including late evenings. Looking at the development units included in these sites they all include multiplex cinemas, multiple restaurants usually including a drive-through and most of them include bowling centres. Three of the six selections include either a nightclub or poker club which is only open late evening/night. More day-based activity such as health and fitness centre is in the minority.

Whilst the 80% am arrivals previously suggested was too much, I now think that we have gone too far the other way with only 2.4% of arrivals in AM peak and arrivals considerably outweighing departures in PM, so there is a need to move towards centre ground.

Having made a comparison, I think the leisure centre use produces a more suitable daily profile than the leisure park use. Admittedly the leisure centre is heavily based around swimming pools, which is not what is proposed, but I think the pattern of use in terms of times of day and length of stay may be reasonably similar, albeit there is still significant evening use, but earlier in the evening than the leisure park developments. The intensity of daily and peak use, I also don't think is out of step; it should produce a robust PM peak assessment. I've attached trip rate graphs of both uses for comparison. For leisure centre I also chose only edge of town sites and extended the date range to obtain a sample of six sites. This meant accepting sites from 2009 whereas the leisure park date range went back to 2000.

I do have to caveat by saying I do not know what National Highways view will be of this matter.

Could you let me know your thoughts on this response?

Kind regards

Guy

Guy Parfect | Senior Planner, Planning Services, Economy Planning and Place Directorate, West Sussex County Council
Location: Ground Floor, Northleigh, County Hall, West Street, Chichester, PO19 1RH
Internal: 26442 | External: +44 (0) 330 2226442 | E-mail: guy.parfect@westsussex.gov.uk

From: Amol Pisal <Amol@adltraffic.co.uk>
Sent: 29 September 2021 11:57
To: Guy Parfect <guy.parfect@westsussex.gov.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Olamide Olayinka <Olamide.Olayinka@westsussex.gov.uk>

Cc: Alex Painting <alex@adltraffic.co.uk>
Subject: RE: Development Scenarios

Hi Guy

Having reviewed our assumptions for D2 use, I have reverted back to TRICS database to determine a typical arrival/departure profile between the hours of 08:00 and 18:00. This is because places like Zipworld are open to public between 09:00 and 17:00 hours.

The closest comparable sub-land use within TRICS is Leisure Park. I attach the TRICS report for you reference. I have also attached spreadsheet which shows the arrival/departure profile based on TRICS between the hours of 08:00 – 18:00 only (in Columns L to N).

It clearly shows that mid-afternoon is the busiest time, there appear to be vehicles arriving in the late afternoon hours also. This is attributed to the fact that some Leisure Parks are open till late night hours.

In our case, if we are to use the same arrival/departure profile between 08:00 and 18:00 hours, the busy hours of late afternoon could be attributed towards those who arrive on site to stay overnight before their main visit the next day.

I think, using this methodology would address your concerns regarding our previous arrival departure assumptions.

Please let me know your thoughts.

Thank you.

Kind regards

Amol Pisal | Director

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From: Guy Parfect <guy.parfect@westsussex.gov.uk>
Sent: 16 September 2021 18:11
To: Amol Pisal <Amol@adltraffic.co.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Olamide Olayinka <Olamide.Olayinka@westsussex.gov.uk>
Cc: Alex Painting <alex@adltraffic.co.uk>
Subject: RE: Development Scenarios

Hi Amol and all

I'm sorry that this has taken several days to respond to, due largely to one of those weeks where every time this reached the top of my to-do list, something else has come up that has had to receive attention.

I agree that 7500sqm / 116 beds is a more realistic size for a hotel than 37500sqm / 621 beds which would seem to be a size which would exceed what could be filled by the likely demand through most if not all of the year in this location. The larger size would also raise questions about the amount of parking needed to be provided on site, given that we can expect mode share by public transport to be low for this use (even taking into account rail plus taxi from Shoreham rather than bus).

I took a look at the Zip-World website earlier this week to inform myself on their operation. A couple of things which I picked up were:

1) Each of their four sites seems to have three or four activities which together can make up a full day visit; an individual activity typically lasts for two to three hours and they are purchasable individually.
2) The overnight accommodation offered on their website was not on site; it was linking to accommodation around the local area or region.
3) The sites seemed to be open seven days a week

You have calculated average daily usage; the demand is likely to have a seasonal profile, but we are assessing on the basis of neutral months for traffic so a straight annual average would fit in with this. However it may also be sensible to think about seasonal summer demands for sensitivity, as the seasonal peak for leisure use may also coincide with busy times for general traffic – more so in June and July than in August when there is a low in the commuter peaks which you are assessing but strong demand in the inter-peak.

It will be helpful in the tech note and report to set out the rationale or evidence to back any assumptions made and to state where there is a shortfall in available evidence (empirical or otherwise) to support any assumptions, so that we can take into account the extent of uncertainty in subsequent analysis.

For example the proposed split of 80% car and 20% coach (implying negligible use of service bus, taxi or cycle) seems broadly reasonable to me, but I'd like to know if this is based on typical figures recorded from other leisure attractions.

Ref "Typically, 10% of the daily trips occur during AM and PM peak hours. However, for the purposes of robust assessment, we are assuming that 80% of the visitors arrive in the AM peak hour i.e., there would be 102 cars and 2 coaches would arrive in the AM peak hour.

The attached North Wales Tourism report also shows 75% trips of the visitors stayed at least one night and the remaining 25% trips left the same day."

I think that the 80% arriving in the AM peak hour is likely to be a significant over-estimate for a few reasons:

1) Not every day visit will be a full day visit. If there is one zip-wire activity on site we would expect a stay around three hours; if there are several activities, as at Zip-World, a large proportion of visits may be for a full day, but there may be others doing a half day
2) Arrivals for a leisure activity, even if based on a full day may be as likely to arrive after 9am as before.
3) Those staying overnight at the hotel on site are at least as likely to be staying over the night before their main visit as the night afterward
4) The figures in the tourism report stated "Citing their main motivation to visit North Wales as Zip World, 74.74% of responders stated that they stayed for at least one night, and by definition, became tourists. This provides strong reason to believe that Zip World is a strong tourism generator for North Wales." This seems to to be addressing those visitors to Zip-World who stated that Zip-World was their mean reason for visiting North Wales and that the proportions would be within that group, rather than also being representative of other groups such as those who were already visiting the area for a longer stay and only decided to visit Zip-World when they were already in North Wales, or local day visitors who already lived in North Wales. It also seems to me that for the Shoreham Cement Works there is a larger catchment of local residents (say within two

hours car travel time of the site) who may choose to visit than there would be for the North Wales sites, where the local settlements are relatively small and a high proportion of visitors will be coming from north-west England or the west Midlands.

Please could you consider these points and respond as to whether you wish to make any changes to your proposed arrival and departure profiles in response?

Kind regards

Guy

Guy Parfect | Senior Planner, Planning Services, Economy Planning and Place Directorate, West Sussex County Council
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From: Amol Pisal <Amol@adltraffic.co.uk>
Sent: 12 September 2021 16:50
To: Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Guy Parfect <guy.parfect@westsussex.gov.uk>; Olamide Olayinka <Olamide.Olayinka@westsussex.gov.uk>
Cc: Alex Painting <alex@adltraffic.co.uk>
Subject: RE: Development Scenarios

Hi Lucy

Thank you for your response.

C1 Hotel Use

Using TRICS database, it appears that average size of a hotel is 6,911 sqm and average number of bedrooms per hotel is 116. See the list of hotels, their GFAs and number of bedrooms provided in the attached spreadsheet.

Therefore, based on this, we calculate a hotel with a total GFA of 37,000 sqm (Scenario C) could accommodate a whopping 621 bedrooms.

Scenarios A and B which provide a 7,500 sqm of hotel is a realistic figure based on the above. But, as you say, given that 37,000 sqm of C1 use (hotel) has been given to other consultants for Scenario C, we would be happy to test this.

D2 Leisure Use

@Guy, now that Lucy has confirmed the land owner's aspiration with regard to D2 use, we have done some background research on Zip World in North Wales. Zip World has 4 sites in Wales (Zip World Fforest in Betws-y-Coed, Zip World Penrhyn Quarry in Bethesda, Zip World Slare Caverns in Blaenau Ffestiniog and Zip World Tower in Aberdare). Having reviewed the research report by North Wales Tourism (see attached), it appears that since its inception (year 2011), Zip World attracted over 1 million visitors by the year 2018. Therefore, this equates to approximately 125K visitors per year.

However, in 2019, online media sources confirmed that the number of visitors increased to 400K in 2018 across all their sites. Based on this, an average of 100K visitors per year per site could be calculated. In my experience, this is a robust assessment to calculate trip generation.

For the purposes of trip generation, I will be making the following assumption:

- Average car occupancy = 3 visitors per car
- Average coach occupancy = 50 visitors per coach

- 80% would arrive in cars and the remaining 20% by coach

- For robust assessment, 30-week activity period (Zip World is open for more than this period).

Based on the above assumptions, I calculate the following:

- 80,000 visitors in cars **OR** 26,667 cars per year **OR** 890 cars per week **OR** 127 cars per day
- 20,000 visitors in coach **OR** 400 coaches per year **OR** 13 coaches per week **OR** 2 coaches per day

Vehicle Arrivals

Typically, 10% of the daily trips occur during AM and PM peak hours. However, for the purposes of robust assessment, we are assuming that 80% of the visitors arrive in the AM peak hour i.e., there would be 102 cars and 2 coaches would arrive in the AM peak hour.

The attached North Wales Tourism report also shows 75% trips of the visitors stayed at least one night and the remaining 25% trips left the same day.

Therefore, out of the 102 cars and 2 coaches that arrive during AM peak hour, 26 cars and 1 coach would depart in the PM peak hour and the remaining 76 cars and one coach would be parked within the development i.e., visitors staying at the proposed hotel. These 76 cars and 1 coach are assumed to depart the next day during AM peak hour.

Therefore, the arrival departure profile for this use during AM and PM peak hours would be as follows:

	In	Out	Two-way
AM Peak Hour	102 cars + 2 coaches	76 cars + 1 coach (from previous day)	178 cars + 3 coaches
PM Peak Hour	0	26 cars + 1 coach	26 cars + 1 coach

76 cars and 1 coach trips will be discounted from the hotel trip generation during AM peak hours (inbound and outbound) to avoid any double-counting in Scenario C.

Thank you.

Kind regards

Amol Pisal | Director

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From: Lucy Howard <Lucy.Howard@southdowns.gov.uk>
Sent: 10 September 2021 10:37
To: Amol Pisal <Amol@adltraffic.co.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>
Cc: Guy Parfect <guy.parfect@westsussex.gov.uk>
Subject: RE: Development Scenarios

Hi Amol

Thank you for the email. I have talked about this with Alex so apologies if we have not got back to you before.

I agree that the 37,000 m2 for a hotel is very large. However, we have given all the same figures to all the consultants and so I think you should test it. I think we need to give some thought to a more realistic figure and test it as another scenario. Have you got any floorspace figures for hotels that you could share?

In regard to the 18,500 m2 for D2 Assembly & Leisure I can confirm that this is the correct figure to test. His could be any other indoor or outdoor sports or recreations (not involving motorised vehicles or firearms). Last time I was on site with the site owner who was talking about a zip wire as per Zip World in Snowdonia.

Kind regards

Lucy Howard

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From: Amol Pisal <Amol@adltraffic.co.uk>
Sent: 10 September 2021 10:10
To: Alex Pringle <Alex.Pringle@southdowns.gov.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>
Cc: Guy Parfect <guy.parfect@westsussex.gov.uk>
Subject: Development Scenarios

Dear Alex and Lucy

I was wondering if you could please confirm that the proposed 37,00 sqm of C1 use (hotel) and 18,500 sqm of D2 (leisure) is realistic and correct?

Also, with regard to the D2 use, there are a number of sub-land uses. I would expect that given the remaining proposed land uses, D2 is likely to be a leisure centre?

I look forward to your comments.

Thank you.

Kind regards

Amol Pisal | Director

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TECHNICAL NOTE 3
SHOREHAM CEMENT WORKS
JUNCTION CAPACITY ASSESSMENT
(ADL REF: 5201, 15th NOVEMBER 2021)
REVISION A

INTRODUCTION

1.0 Scope of Study

1.1 ADL Traffic & Highways Engineering Ltd have been commissioned by South Downs National Park Authority (SDNPA) to undertake a transport study of the development scenarios at Shoreham Cement Works.

1.2 This Technical Note 3 (TN3) summarises the junction capacity assessment of the four development scenarios at the each of the junctions subject to this transport study.

1.3 This TN4 is supplemented by previous Technical Notes which are as follows:

- TN1: Trip Generation, Trip Distribution, Trip Assignment Methodology;
- TN2: Committed Development Assessment; and
- Subsequent discussions with SDNPA, WSCC and NH.

2.0 Junctions Assessed

2.1 As per discussions with West Sussex County Council (WSCC), the Highway Authority, and National Highways (NH), it has been agreed that the following junctions are to be assessed for each of the development scenarios:

1) A283 / A24 (Washington) Roundabout;
2) A283 / Water Lane / Chanctonbury Ring Road crossroads;
3) A283 / Maudlin Lane / Clays Hill / Castle Lane / The Street Roundabout;
4) A283 / A2037 Roundabout;
5) Site Access (North); **access arrangement to be agreed**

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6) Site Access (South); **access arrangement to be agreed**

7) A283 / A27 Slips Roundabout;

8) A283 / Upper Shoreham Road Roundabout;

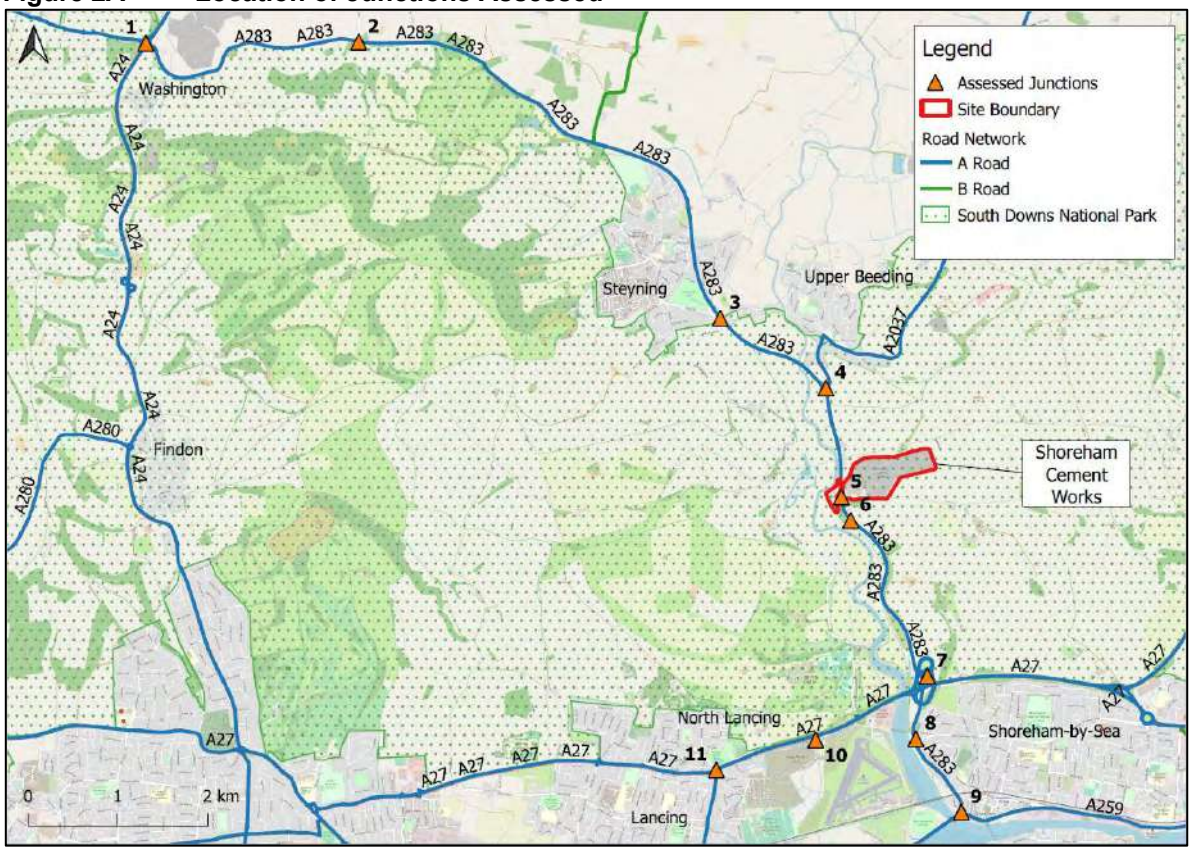
9) A283 / A259 Roundabout;

10) A27 / New Monks Farm Committed Signalised Roundabout; and

11) A27 / A2025 / Manor Road (Lancing Manor) Roundabout.

2.2 A plan of the aforementioned junctions is shown on a plan in Figure 2A.

Figure 2A Location of Junctions Assessed



3.0 Development Scenarios

3.1 There are four development scenarios for the Shoreham Cement Works site which are being assessed as part of this transport study which have been drawn up by SDNPA. These scenarios, and their respective schedule of development, are summarised in Table 3A.

Table 3A Development Scenarios

Current Use Class	Former Use Class	1 Housing / Employment Led	2 Housing / Employment Led	3 Leisure Led	4 Appeal scheme
B2: General industrial	B2	16,200	16,200	0	13,250
B8: Storage or distribution	B8	20,000	20,000	0	13,250
C1: Hotel*	C1	7,500	7,500	7,500	7,500
E(a): Retail	A1	0	0	500	0
E(b): Consumption of food & drink on premises	A3	0	0	1,500	1,500
E(d): Indoor sport, recreation & fitness**	D2	0	0	18,500	0
E(g)(i): Offices	B1(a)	0	0	0	12,000
E(g)(ii): Research & Development / E(g)(iii) Industrial processes	B1 (b/c)	32,000	32,000	32,000	0
F1: Learning & non-residential institution	D1	2,000	2,000	10,000	0
F2(a): Local shop	A1	280	280	280	0
C3: Dwellings	C3	400	240	200	84
Total commercial floorspace		**77,980**	**77,980**	**70,280**	**47,500**
Total homes		**400**	**240**	**200**	**84**

*Possibility of sui generis for hostel
**Possibility of sui generis for live music venue

Notes:
Floorspace of hotel kept constant at 7,500 m2. This is approx equivalent to a 130-bed hotel based on the TRICS database
Floorspace of a local shop kept constant in first 3 scenarios. Floorspace of 280 m2 is the maximum allowed under this use class.
The employment floorspace figure for the appeal scheme has been split equally between B2 and B8
The E(b): Consumption of food & drink on premises in scenario 3 is a pub/restaurant but is not sui generis drinking establishment

JUNCTION CAPACITY ASSESSMENT

4.0 Introduction

4.1 A junction capacity assessment has been undertaken for each of the 11 junctions assessed as part of this transport study for the year 2033.

2033 Baseline Scenario

4.2 Each of the four development scenarios have been tested against the 2033 Baseline Scenario without development (i.e., 2033 Base + Total Committed Development). The methodology for estimating the 2033 Baseline traffic flows has been discussed at length in TN1 and TN2, as well as email correspondence with NH.

4.3 TN1 describes the permitted development for the site and the traffic flows associated with the permitted uses are assumed to be factored into the 2033 Baseline traffic flows.

Proposed Development Scenarios

4.4 Each of the four development scenarios consider the removal of the permitted development. As such, the proposed development scenarios are as follows:

Scenario 1:

- 2033 Base + Total Committed Development – Permitted Development + Scenario 1 Proposed Development

Scenario 2:

- 2033 Base + Total Committed Development – Permitted Development + Scenario 2 Proposed Development

Scenario 3:

- 2033 Base + Total Committed Development – Permitted Development + Scenario 3 Proposed Development

Scenario 4:

- 2033 Base + Total Committed Development – Permitted Development + Scenario 4 Proposed Development

Proposed Development Scenarios with Mitigation

4.5 Should the proposed development scenarios result in the junction not operating within theoretical capacity (i.e., RFC value greater than 0.85), or significant increase in queue lengths when compared with the 2033 baseline scenario, ADL have proposed mitigation in the form of junction improvements to alleviate potential traffic issues identified at certain arms of junctions.

4.6 Any junction improvements have then been remodelled to test the extent to which the improved junction improvements can accommodate the proposed development scenarios without severe residual traffic impact.

4.7 This is to ensure that the proposed development scenarios would not result in an unacceptable impact on highway safety, or cause severe residual cumulative impacts on the road network (National Planning Policy Framework (2021) paragraph 111).

Budget Cost Estimate for Off-Site Highway Works

4.8 Where off-site highways improvements have been proposed as mitigation, a budget cost estimate has been drawn up for each of the affected junctions.

4.9 These is a budget estimate only, which excludes design and council fees, and underground service diversion costs. It has been assumed that the existing road, where retained, will be resurfaced and the whole gyratory has been resurfaced. ADL are not qualified quantity surveyors and the estimates provided should not be used for any contract documents

4.10 Each of the junctions are assessed in the subsequent sections.

5.0 Junction 1 – A283 / A24 (Washington) Roundabout

5.1 The Washington Roundabout, i.e., A283 / A24 junction has been assessed for capacity using TRL's Junction's 9 Software.

Existing Junction Arrangement

5.2 The ARCADY model output for 2033 Baseline Scenario with existing junction arrangement is provided as Appendix 1.1. The results are summarised in Table 5A.

Table 5A ARCADY Outputs: Washington Roundabout – 2033 Baseline Scenario

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
A283 East	0.80	4	0.83	5
A24 South	0.86	6	0.63	2
A283 West	1.06	45	0.93	11
A24 North	0.91	9	1.17	162
Total Queue	**-**	**64**	**-**	**180**

5.3 The model output for the Proposed Development Scenarios, under the existing junction arrangement is provided as Appendix 1.2. The results are summarised in Table 5B.

Table 5B ARCADY Outputs: Washington Roundabout – 2033 Total Scenarios, with Existing Junction Arrangement

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A283 East	0.83	5	+1	0.84	5	0
	A24 South	0.87	7	+1	0.63	2	0
	A283 West	1.09	57	+12	0.94	12	+1
	A24 North	0.91	9	0	1.18	174	+12
	Total Queue	**-**	**78**	**+14**	**-**	**193**	**+13**
2	A283 East	0.82	4	0	0.85	5	0
	A24 South	0.87	6	0	0.63	2	0
	A283 West	1.08	54	+9	0.94	12	+1
	A24 North	0.91	9	0	1.17	167	+5
	Total Queue	**-**	**73**	**+13**	**-**	**186**	**+6**
3	A283 East	0.82	4	0	0.84	5	0
	A24 South	0.87	6	0	0.63	2	0
	A283 West	1.08	53	+8	0.94	12	+1
	A24 North	0.91	9	0	1.17	168	+6
	Total Queue	**-**	**72**	**+12**	**-**	**187**	**+7**
4	A283 East	0.81	4	0	0.84	5	0
	A24 South	0.87	6	0	0.63	2	0
	A283 West	1.08	52	+7	0.93	11	0
	A24 North	0.91	9	0	1.17	164	+2
	Total Queue	**-**	**71**	**+7**	**-**	**182**	**+2**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

5.4 Table 5B demonstrates that all proposed development scenarios result in an increase in queueing on the A283 West arm of the roundabout during the AM peak hour. The increase in queues is +12 vehicles in Scenario 1; +9 vehicles in Scenario 2; +8 vehicles in Scenario 3; and +7 vehicles in Scenario 4.

5.5 Table 5B also demonstrates that all proposed development scenarios result in an increase in queueing on the A24 North arm of the roundabout during the PM peak hour. The increase in queues is +12 vehicles in Scenario 1; +5 vehicles in Scenario 2; +6 vehicles in Scenario 3; and +2 vehicles in Scenario 4.

Note: The increase in queues is not considered to be significant enough to warrant any improvements to the junction. However, should the Highway Authority consider this to be fully mitigated, junction improvements are suggested below.

Proposed Junction Improvements

5.6 It is proposed to provide the following mitigation to improve the capacity of the junction and minimise the impact of the proposed development scenarios:

A283 West:

- Increase entry width from 8.5 metres to 11.3 metres (i.e., increase from two to three lanes); and
- Lane direction road markings.

A24 North:

- Increase entry width from 8.2 metres to 11.4 metres (i.e., increase from two to three lanes);
- Flare length increased from 4.8 metres to 53 metres; and
- Lane direction road markings – left lane dedicated to left turners, two lanes dedicated for straight ahead and right/U-turners.

A283 East:

- Lane direction road markings.

A24 South:

- Lane direction road markings.

Circulatory lanes:

- Lane direction road markings.

5.7 A plan of the proposed junction improvements are provided as Appendix 1.3. The model output for the Proposed Development Scenarios, with proposed junction improvements is provided as Appendix 1.4. The results are summarised in Table 5C.

Table 5C ARCADY Outputs: A283 / A24 Roundabout – 2033 Total Scenarios, with Proposed Junction Improvements

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A283 East	0.84	5	+2	1.01	23	+18
	A24 South	0.88	7	+1	0.65	2	0
	A283 West	0.86	6	-39	0.77	3	-8
	A24 North	0.69	2	-7	0.86	6	-156
	Total Queue	**-**	**20**	**-44**	**-**	**34**	**-146**
2	A283 East	0.83	5	+1	1.02	24	+19
	A24 South	0.88	7	+1	0.64	2	0
	A283 West	0.86	6	-39	0.76	3	-8
	A24 North	0.68	2	-7	0.86	6	-156
	Total Queue	**-**	**20**	**-44**	**-**	**35**	**-145**
3	A283 East	0.83	5	+1	1.01	22	+17
	A24 South	0.88	7	+1	0.64	2	0
	A283 West	0.85	5	-40	0.76	3	-8
	A24 North	0.68	2	-7	0.86	6	-156
	Total Queue	**-**	**19**	**-45**	**-**	**33**	**-147**
4	A283 East	0.82	4	0	1.00	20	+15
	A24 South	0.87	7	+1	0.64	2	0
	A283 West	0.85	5	-40	0.76	3	-8
	A24 North	0.68	2	-7	0.85	6	-156
	Total Queue	**-**	**20**	**-44**	**-**	**31**	**-149**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

5.8 Table 5C demonstrates that the proposed junction improvements would result in significant increase the capacity of the junction.

5.9 Table 5C shows that during the AM Peak Hour, compared to the 2033 Base Scenario, the on the A283 West arm, the decrease in queues is -39 vehicles in Scenario 1 and Scenario 2; and -40 vehicles in Scenario 3 and Scenario 4. In all proposed development scenarios, there would be decrease of -7 vehicles on A24 North arm during AM peak hour.

5.10 Table 5C also shows that during the PM peak hour, in all proposed development scenarios compared to the 2033 Base Scenario, on the A24 North arm there would be decrease of -156 vehicles, and on the A283 West arm there would be decrease of -8 vehicles.

5.11 Whilst the proposed junction improvements do incur an increase in queue lengths on the A283 East arm of the roundabout, during the PM peak hour, the total number of queueing vehicles is significantly decreased compared the 2033 Baseline Scenario in all proposed development scenarios.

Budget Cost Estimate for Off-Site Highway Works

5.12 A summary of the budget cost estimate for the off-site highways works for the proposed junction improvements is provided in Table 5D.

Table 5D Budget Cost Estimate: A283 / A24 Roundabout

Item	Description	£
	Preliminaries 15%	£35,670.00
1.0	Site Clearance Works	£17,786.00
2.0	Earthworks	£58,749.00
3.0	Pavement	£143,267.00
4.0	Drainage	£5,500.00
5.0	Signs and Markings	£12,500.00
6.0	Other	£22,837.50
	Total	**£296,310**
	Contingency 10%	**£29,631**
	Civils Total	**£325,941**

5.13 Full details for the budget cost estimate are provided as Appendix 1.5.

6.0 Junction 2 – A283 / Water Lane / Chanctonbury Ring Road Crossroads

6.1 The A283 / Water Lane / Chanctonbury Ring Road crossroads junction has been assessed for capacity using TRL's Junction's 9 Software.

Existing Junction Arrangement

6.2 The PICADY model output for 2033 Baseline Scenario with existing junction arrangement is provided as Appendix 2.1. The results are summarised in Table 6A.

Table 6A PICADY Outputs: A283 / Water Lane – 2033 Baseline Scenario

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
Chanctonbury Ring Road (Left Out)	0.03	0	99999999	2
Chanctonbury Ring Road (Right Out)	0.36	1	99999999	1
A283 East (right turn)	0.56	2	0.47	1
Water Lane (Left Out)	0.69	2	1.11	25
Water Lane (Right Out)	0.13	0	1.03	5
A283 West (right turn)	0.00	0	0.00	0
Total Queue	**-**	**5**	**-**	**34**

6.3 The model output for the Proposed Development Scenarios, under the existing junction arrangement is provided as Appendix 2.2. The results are summarised in Table 6B.

Table 6B PICADY Outputs: A283 / Water Lane – 2033 Total Scenarios, with Existing Junction Arrangement

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	Chanctonbury Ring Road (Left Out)	0.13	0	0	9999999	2	0
	Chanctonbury Ring Road (Right Out)	0.66	1	0	9999999	1	0
	A283 East (right turn)	0.57	2	0	0.47	1	0
	Water Lane (Left Out)	0.70	2	0	1.19	36	+11
	Water Lane (Right Out)	0.15	0	0	1.09	6	+1
	A283 West (right turn)	0.00	0	0	0.00	0	0
	Total Queue	**-**	**5**	**0**	**-**	**46**	**+12**
2	Chanctonbury Ring Road (Left Out)	0.06	0	0	9999999	2	0
	Chanctonbury Ring Road (Right Out)	0.54	1	0	9999999	1	0
	A283 East (right turn)	0.57	2	0	0.47	1	0
	Water Lane (Left Out)	0.70	2	0	1.16	32	+7
	Water Lane (Right Out)	0.14	0	0	1.07	6	+1
	A283 West (right turn)	0.00	0	0	0.00	0	0
	Total Queue	**-**	**5**	**0**	**-**	**42**	**+8**
3	Chanctonbury Ring Road (Left Out)	0.05	0	0	9999999	2	0
	Chanctonbury Ring Road (Right Out)	0.50	1	0	9999999	1	0
	A283 East (right turn)	0.57	2	0	0.47	1	0
	Water Lane (Left Out)	0.70	2	0	1.16	31	+6
	Water Lane (Right Out)	0.14	0	0	1.06	5	0
	A283 West (right turn)	0.00	0	0	0.00	0	0
	Total Queue	**-**	**5**	**0**	**-**	**40**	**+6**
4	Chanctonbury Ring Road (Left Out)	0.04	0	0	9999999	2	0
	Chanctonbury Ring Road (Right Out)	0.46	1	0	9999999	1	0
	A283 East (right turn)	0.57	2	0	0.47	1	0
	Water Lane (Left Out)	0.69	2	0	1.13	28	+3
	Water Lane (Right Out)	0.14	0	0	1.04	5	0
	A283 West (right turn)	0.00	0	0	0.00	0	0
	Total Queue	**-**	**5**	**0**	**-**	**37**	**+3**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

6.4 Table 6B shows that the junction operates within theoretical capacity (i.e., RFC value of less than 0.85) under all development scenarios, with no increase in queues in the AM peak hour.

6.5 Table 6B also shows that all proposed development scenarios result in an increase in queueing on Water Lane (left out) during the PM peak hour. The increase in queues is +11 vehicles in Scenario 1; +7 vehicles in Scenario 2; +6 vehicles in Scenario 3; and +3 vehicles in Scenario 4.

Note: The increase in queues is not considered to be significant enough to warrant any improvements to the junction. However, should the Highway Authority consider this to be fully mitigated, junction improvements are suggested below.

Proposed Junction Improvements

6.6 It is proposed to provide the following mitigation to improve the capacity of the junction and minimise the impact of the proposed development scenarios:

Water Lane:

- Increase width to 6.0 metres at 10 metres back from give-way, and up to 5.5 metres at 15 metre back from give-way (i.e., increase flare length from two PCU to three PCU); and
- Increase visibility to left onto A283 to 100 metres – WSCC to maintain the vegetation within adopted highway extent.

6.7 A plan of the proposed junction improvements are provided as Appendix 2.3. The model output for the Proposed Development Scenarios, with proposed junction improvements is provided as Appendix 2.4. The results are summarised in Table 6C.

Table 6C PICADY Outputs: A283 / Water Lane – 2033 Total Scenarios, with Proposed Junction Improvements

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	Chanctonbury Ring Road (Left Out)	0.12	0	0	9999999	2	0
	Chanctonbury Ring Road (Right Out)	0.65	1	0	9999999	1	0
	A283 East (right turn)	0.57	2	0	0.47	1	0
	Water Lane (Left Out)	0.68	2	0	1.15	29	+4
	Water Lane (Right Out)	0.14	0	0	1.05	5	0
	A283 West (right turn)	0.00	0	0	0.00	0	0
	Total Queue	**-**	**5**	**0**	**-**	**38**	**+4**
2	Chanctonbury Ring Road (Left Out)	0.06	0	0	9999999	2	0
	Chanctonbury Ring Road (Right Out)	0.54	1	0	9999999	1	0
	A283 East (right turn)	0.57	2	0	0.47	1	0
	Water Lane (Left Out)	0.68	2	0	1.11	25	0
	Water Lane (Right Out)	0.14	0	0	1.02	5	0
	A283 West (right turn)	0.00	0	0	0.00	0	0
	Total Queue	**-**	**5**	**0**	**-**	**34**	**0**
3	Chanctonbury Ring Road (Left Out)	0.05	0	0	9999999	2	0
	Chanctonbury Ring Road (Right Out)	0.50	1	0	9999999	1	0
	A283 East (right turn)	0.57	2	0	0.47	1	0
	Water Lane (Left Out)	0.68	2	0	1.11	24	-1
	Water Lane (Right Out)	0.13	0	0	1.02	5	0
	A283 West (right turn)	0.00	0	0	0.00	0	0
	Total Queue	**-**	**5**	**0**	**-**	**33**	**-1**
4	Chanctonbury Ring Road (Left Out)	0.04	0	0	9999999	2	0
	Chanctonbury Ring Road (Right Out)	0.45	1	0	9999999	1	0
	A283 East (right turn)	0.57	2	0	0.47	1	0
	Water Lane (Left Out)	0.68	2	0	1.08	21	-4
	Water Lane (Right Out)	0.13	0	0	1.00	5	0
	A283 West (right turn)	0.00	0	0	0.00	0	0
	Total Queue	**-**	**5**	**0**	**-**	**30**	**-4**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

6.8 Table 6C shows that the proposed junction improvements by widening Water Lane and increasing visibility to the left reduce the increase in queue under Scenario 1 (from +11 to +4 vehicles), results in no increase in queue length under Scenario 2, and decrease the queue length in Scenario 3 by -1 vehicle and in Scenario 4 by -4 vehicles compared to 2033 Baseline Scenario.

Budget Cost Estimate for Off-Site Highway Works

6.9 A summary of the budget cost estimate for the off-site highways works for the proposed junction improvements is provided in Table 6D.

Table 6D Budget Cost Estimate: A283 / Water Lane

Item	Description	£
	Preliminaries 15%	£2,178.75
1.0	Site Clearance Works	£1,515.00
2.0	Earthworks	£2,736.00
3.0	Pavement	£8,524.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£1,750.00
6.0	Other	£2,000.00
	Total	**£18,704**
	Contingency 10%	**£1,870**
	Civils Total	**£20,574**

6.10 Full details for the budget cost estimate are provided as Appendix 2.5.

7.0 Junction 3 – A283 / Maudlin Lane / Clays Hill / Castle Lane / The Street Roundabout

7.1 The A283 / Maudlin Lane / Clays Hill / Castle Lane / The Street Roundabout has been assessed for capacity using TRL's Junction's 9 Software.

Existing Junction Arrangement

7.2 The ARCADY model output for 2033 Baseline Scenario with existing junction arrangement is provided as Appendix 3.1. The results are summarised in Table 7A.

Table 7A ARCADY Outputs: A283 / Clays Hill Roundabout – 2033 Baseline Scenario

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
A283 South	1.06	51	1.24	166
Maudlin Lane	0.04	0	0.04	0
Clays Hill	0.91	8	0.55	1
A283 North	0.87	6	0.88	7
Castle Lane	0.34	1	0.15	0
The Street	0.33	1	0.34	1
Total Queue	**-**	**67**	**-**	**175**

7.3 The model output for the Proposed Development Scenarios, under the existing junction arrangement is provided as Appendix 3.2. The results are summarised in Table 9B.

Table 7B ARCADY Outputs: A283 / Clays Hill Roundabout – 2033 Total Scenarios, with Existing Junction Arrangement

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A283 South	1.10	72	+21	1.26	184	+22
	Maudlin Lane	0.04	0	0	0.04	0	0
	Clays Hill	0.93	9	+1	0.56	1	0
	A283 North	0.90	8	+2	0.89	7	0
	Castle Lane	0.36	1	0	0.15	0	0
	The Street	0.34	1	0	0.34	1	0
	Total Queue	**-**	**91**	**+24**	**-**	**193**	**+22**
2	A283 South	1.09	66	+15	1.26	189	+23
	Maudlin Lane	0.04	0	0	0.04	0	0
	Clays Hill	0.92	9	+1	0.55	1	0
	A283 North	0.89	7	+1	0.90	8	+1
	Castle Lane	0.35	1	0	0.16	0	0
	The Street	0.33	1	0	0.35	1	0
	Total Queue	**-**	**84**	**+17**	**-**	**199**	**+24**
3	A283 South	1.08	64	+13	1.25	179	+13
	Maudlin Lane	0.04	0	0	0.04	0	0
	Clays Hill	0.92	9	+1	0.55	1	0
	A283 North	0.89	7	+1	0.90	8	+1
	Castle Lane	0.35	1	0	0.16	0	0
	The Street	0.33	1	0	0.35	1	0
	Total Queue	**-**	**82**	**+15**	**-**	**189**	**+14**
4	A283 South	1.07	58	+7	1.25	174	+12
	Maudlin Lane	0.04	0	0	0.04	0	0
	Clays Hill	0.92	9	+1	0.55	1	0
	A283 North	0.89	7	+1	0.89	7	0
	Castle Lane	0.35	1	0	0.15	0	0
	The Street	0.33	1	0	0.34	1	0
	Total Queue	**-**	**76**	**+9**	**-**	**183**	**+12**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

7.4 Table 7B demonstrates that all development scenarios result in increased queuing on the A283 South arm of the roundabout. during AM and PM peak hours. There is no increase, or only minor increase in queue on all other arms of the roundabout.

Proposed Junction Improvements

7.5 It is proposed to provide the following mitigation to improve the capacity of the junction and minimise the impact of the proposed development scenarios:

A283 South:

- Increase entry width from 6.7 metres to 7.2 metres (i.e., increase effective flare length from 8.0 metres to 23.5 metres).

7.6 A plan of the proposed junction improvements are provided as Appendix 3.3. The model output for the Proposed Development Scenarios, with proposed junction improvements is provided as Appendix 3.4. The results are summarised in Table 7C.

Table 7C ARCADY Outputs: A283 / Clays Hill Roundabout – 2033 Total Scenarios, with Proposed Junction Improvements

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A283 South	0.96	16	-35	1.10	84	-82
	Maudlin Lane	0.05	0	0	0.05	0	0
	Clays Hill	0.99	16	+8	0.63	2	+1
	A283 North	0.89	7	+1	0.89	7	0
	Castle Lane	0.35	1	0	0.15	0	0
	The Street	0.33	1	0	0.34	1	0
	Total Queue	**-**	**41**	**-26**	**-**	**94**	**-81**
2	A283 South	0.95	14	-36	1.10	87	-79
	Maudlin Lane	0.05	0	0	0.05	0	0
	Clays Hill	0.98	15	+7	0.62	2	+1
	A283 North	0.89	7	+1	0.90	8	+1
	Castle Lane	0.35	1	0	0.16	0	0
	The Street	0.33	1	0	0.35	1	0
	Total	**-**	**38**	**-29**	**-**	**98**	**-77**
3	A283 South	0.95	14	-37	1.10	81	-85
	Maudlin Lane	0.05	0	0	0.05	0	0
	Clays Hill	0.98	14	+6	0.62	2	+1
	A283 North	0.89	7	+1	0.90	8	+1
	Castle Lane	0.35	1	0	0.16	0	0
	The Street	0.33	1	0	0.35	1	0
	Total	**-**	**37**	**-30**	**-**	**92**	**-83**
4	A283 South	0.94	12	-39	1.09	77	-89
	Maudlin Lane	0.05	0	0	0.05	0	0
	Clays Hill	0.97	14	+6	0.62	2	+1
	A283 North	0.89	7	+1	0.89	7	0
	Castle Lane	0.35	1	0	0.15	0	0
	The Street	0.33	1	0	0.34	1	0
	Total	**-**	**35**	**-32**	**-**	**87**	**-88**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

7.7 Table 7C demonstrates that the proposed junction improvements would significantly increase the capacity of the junction, by decreasing the queue lengths on the A283 South arm of the roundabout. In the AM peak hour, on the A283 South arm, the queue length decreases by -35 vehicles in Scenario 1; -36 vehicles in Scenario 2; -37 vehicles in Scenario 3; and -39 vehicles in Scenario 4.

7.8 In the PM peak hour, on the A283 South arm, the queue length decreases by -82 vehicles in Scenario 1; -79 vehicles in Scenario 2; -85 vehicles in Scenario 3; and -89 vehicles in Scenario 4.

7.9 Whilst Table 7C shows that the proposed junction arrangement would decrease queues on the A283 South arm, there would be some increase in queue length on Clays Hill (maximum increase of +8 vehicles, to 16 vehicles, in Scenario 1) and on A283 North arm (maximum increase of +1 vehicle). However, Table 7C demonstrates that the total queues across the roundabout during the peak hour would be significantly decreased. This improves the performance of the junction.

Budget Cost Estimate for Off-Site Highway Works

7.10 A summary of the budget cost estimate for the off-site highways works for the proposed junction improvements is provided in Table 7D.

Table 7D Budget Cost Estimate: A283 / Clays Hill Roundabout

Item	Description	£
	Preliminaries 15%	£5,011.95
1.0	Site Clearance Works	£6,644.00
2.0	Earthworks	£6,328.00
3.0	Pavement	£13,991.00
4.0	Drainage	£2,200.00
5.0	Signs and Markings	£4,250.00
6.0	Other	£5,500.00
	Total	**£43,925**
	Contingency 10%	**£4,392**
	Civils Total	**£48,317**

7.11 Full details for the budget cost estimate are provided as Appendix 3.5.

8.0 Junction 4 – A283 / A2037 Roundabout

8.1 The A283 / A2037 junction has been assessed for capacity using TRL's Junction's 9 Software.

Existing Junction Arrangement

8.2 ARCADY model output for 2033 Baseline Scenario with existing junction arrangement is provided as Appendix 4.1. The results are summarised in Table 8A.

Table 8A ARCADY Outputs: A283 / A2037 Roundabout – 2033 Baseline Scenario

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
A2037	0.81	4	0.79	4
A283 South	0.83	5	0.91	9
A283 North	0.94	12	0.81	4
Total Queue	**-**	**21**	**-**	**17**

8.3 The model output for the Proposed Development Scenarios, under the existing junction arrangement is provided as Appendix 4.2. The results are summarised in Table 8B.

Table 8B ARCADY Outputs: A283 / A2037 Roundabout – 2033 Total Scenarios, with Existing Junction Arrangement

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A2037	0.83	5	+1	0.85	5	+1
	A283 South	0.87	6	+1	0.93	11	+2
	A283 North	0.96	16	+4	0.85	5	+1
	Total Queue	**-**	**27**	**+6**	**-**	**21**	**+4**
2	A2037	0.83	5	+1	0.81	4	0
	A283 South	0.86	6	+1	0.94	12	+3
	A283 North	0.96	15	+3	0.83	5	+1
	Total Queue	**-**	**26**	**+5**	**-**	**21**	**+4**
3	A2037	0.82	4	0	0.81	4	0
	A283 South	0.86	6	+1	0.93	11	+2
	A283 North	0.95	14	+2	0.83	5	+1
	Total Queue	**-**	**26**	**+5**	**-**	**20**	**+3**
4	A2037	0.83	5	+1	0.80	4	0
	A283 South	0.85	5	0	0.92	10	+1
	A283 North	0.96	15	+3	0.82	4	0
	Total Queue	**-**	**25**	**+4**	**-**	**18**	**+1**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

8.4 Table 8B demonstrates that all development scenarios do not result in significant increase in queueing on all arms of the junction during AM and PM peak hours. As such it is not deemed necessary to propose any mitigation at this junction.

9.0 Junction 5 and 6 – Site Access North and South

9.1 At the time of producing this Technical Note, the site access arrangement remains to be resolved.

9.2 As such, junction capacity assessment of the proposed access arrangements for the eastern and western portions of the site would be undertaken in due course.

10.0 Junction 7 – A283 / A27 Slips Roundabout

10.1 The A283 / A27 Slips junction has been assessed for capacity using TRL's Junction's 9 Software.

Existing Junction Arrangement

10.2 The ARCADY model output for 2033 Baseline Scenario with existing junction arrangement is provided as Appendix 5.1. The results are summarised in Table 10A.

Table 10A ARCADY Outputs: A283 / A27 Slips Roundabout – 2033 Baseline Scenario

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
A27 Westbound Slips	0.59	1	0.97	19
A283 South	1.09	58	1.11	58
A283 North	0.92	10	0.81	4
A27 Eastbound Slips	0.34	1	0.31	0
Total Queue	**-**	**70**	**-**	**81**

10.3 The model output for the Proposed Development Scenarios, under the existing junction arrangement is provided as Appendix 5.2. The results are summarised in Table 10B.

Table 10B ARCADY Outputs: A283 / A27 Slips Roundabout – 2033 Total Scenarios, with Existing Junction Arrangement

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A27 Westbound Slips	0.65	2	+1	1.04	55	+36
	A283 South	1.22	114	+56	1.19	93	+35
	A283 North	1.02	37	+27	0.94	13	+9
	A27 Eastbound Slips	0.39	1	0	0.36	1	+1
	Total Queue	**-**	**154**	**+84**	**-**	**162**	**+81**
2	A27 Westbound Slips	0.64	2	+1	1.02	40	+21
	A283 South	1.21	110	+52	1.16	80	+22
	A283 North	0.99	25	+15	0.96	16	+12
	A27 Eastbound Slips	0.39	1	0	0.35	1	+1
	Total Queue	**-**	**138**	**+68**	**-**	**137**	**+56**
3	A27 Westbound Slips	0.62	2	+1	1.01	33	+14
	A283 South	1.14	78	+20	1.16	77	+19
	A283 North	0.97	18	+8	0.88	7	+3
	A27 Eastbound Slips	0.36	1	0	0.34	1	+1
	Total Queue	**-**	**99**	**+29**	**-**	**118**	**+37**
4	A27 Westbound Slips	0.64	2	+1	1.00	28	+9
	A283 South	1.21	109	+51	1.14	71	+13
	A283 North	0.94	13	+3	0.90	8	+4
	A27 Eastbound Slips	0.38	1	0	0.33	1	+1
	Total Queue	**-**	**125**	**+55**	**-**	**108**	**+27**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

10.4 Table 10B demonstrates that under all development scenarios, there would be increased queuing on A283 South arm of the roundabout during AM peak, and on A283 North arm under Scenario 1 and 2.

10.5 Table 10B also demonstrates that under all development scenarios, there would be increased queuing on A27 westbound slips and A283 South arms of the roundabout during PM peak, and on A283 North arm under Scenario 1 and 2.

Proposed Junction Improvements

10.6 It is proposed to provide the following mitigation to improve the capacity of the junction and minimise the impact of the proposed development scenarios:

A27 Westbound Slips:

- Increase entry width from 7.4 metres to 11.3 metres (i.e., increase flare length from 12.2 metres to 32.5 metres);
- Dedicated left hand lane for A283 South traffic; and
- Lane direction road markings.

A283 South:

- Increase entry width from 9.7 metres to 12.0 metres (i.e., increase flare length from 4.1 metres to 26.4 metres);
- Dedicated left hand lane for A283 North traffic; and
- Lane direction road markings.

A283 North:

- Increase entry width from 7.0 metres to 11.2 metres (i.e., increase flare length from 11.5 metres to 26.3 metres);
- Dedicated left hand lane for A27 Eastbound traffic; and
- Lane direction road markings.

A27 Eastbound Slips:

- Increase entry width from 6.6 metres to 11.1 metres (i.e., increase flare length from 11.5 metres to 37.4 metres);
- Dedicated left hand lane for A27 Westbound traffic and
- Lane direction road markings.

Circulatory Lanes:

- Increase from two lanes to three lanes;

- Lane direction road markings.

10.7 A plan of the proposed junction improvements are provided as Appendix 5.3. The model output for the Proposed Development Scenarios, with proposed junction improvements is provided as Appendix 5.4. The results are summarised in Table 10C.

Table 10C ARCADY Outputs: A283 / A27 Slips Roundabout – 2033 Total Scenarios, with Proposed Junction Improvements

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A27 Westbound Slips	0.46	0	-1	0.74	3	-16
	A283 South	0.64	2	-56	0.62	2	-56
	A283 North	0.67	2	-8	0.62	2	-2
	A27 Eastbound Slips	0.27	0	-1	0.25	0	0
	Total Queue	**-**	**4**	**-66**	**-**	**7**	**-74**
2	A27 Westbound Slips	0.46	0	-1	0.73	3	-16
	A283 South	0.64	2	-56	0.60	2	-56
	A283 North	0.66	2	-8	0.63	2	-2
	A27 Eastbound Slips	0.27	0	-1	0.24	0	0
	Total Queue	**-**	**4**	**-66**	**-**	**7**	**-74**
3	A27 Westbound Slips	0.44	1	-1	0.72	3	-16
	A283 South	0.61	2	-56	0.60	2	-56
	A283 North	0.64	2	-8	0.58	1	-3
	A27 Eastbound Slips	0.25	0	-1	0.23	0	0
	Total Queue	**-**	**5**	**-65**	**-**	**6**	**-75**
4	A27 Westbound Slips	0.45	1	-1	0.71	3	-16
	A283 South	0.64	2	-56	0.59	1	-57
	A283 North	0.62	2	-8	0.59	2	-2
	A27 Eastbound Slips	0.26	0	-1	0.23	0	0
	Total Queue	**-**	**5**	**-65**	**-**	**6**	**-75**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

10.8 Table 10C demonstrates that the proposed junction improvements would result in all arms of the roundabout operating with theoretical capacity (i.e., RFC of less than 0.85) in all proposed development scenarios in AM and PM peak hours.

10.9 Table 10C also demonstrates that there would be significantly decrease in queuing, with maximum queue length of two vehicles in AM peak (on A283 South and A293 North arms), and maximum queue length of three vehicles in PM peak (on A27 Westbound slips arm).

Budget Cost Estimate for Off-Site Highway Works

10.10 A summary of the budget cost estimate for the off-site highways works for the proposed junction improvements is provided in Table 10D.

Table 10D Budget Cost Estimate: A283 / A27 Slips Roundabout

Item	Description	£
	Preliminaries 15%	£54,804.30
1.0	Site Clearance Works	£31,655.00
2.0	Earthworks	£112,263.00
3.0	Pavement	£207,944.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£13,500.00
6.0	Other	£57.362.50
	Total	**£477,529**
	Contingency 10%	**£47,753**
	Civils Total	**£525,282**

10.11 Full details for the budget cost estimate are provided as Appendix 5.5.

11.0 Junction 8 – A283 / Upper Shoreham Road Roundabout

11.1 The A283 / Upper Shoreham Road junction has been assessed for capacity using TRL's Junction's 9 Software.

Existing Junction Arrangement

11.2 The ARCADY model output for 2033 Baseline Scenario with existing junction arrangement is provided as Appendix 6.1. The results are summarised in Table 11A.

Table 11A ARCADY Outputs: A283 / Upper Shoreham Road Roundabout – 2033 Baseline Scenario

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
Upper Shoreham Road	0.88	6	0.92	9
A283 South	1.04	24	1.04	25
A283 North	1.10	50	1.43	238
Total Queue	**-**	**80**	**-**	**272**

11.3 The model output for the Proposed Development Scenarios, under the existing junction arrangement is provided as Appendix 6.2. The results are summarised in Table 11B.

Table 11B ARCADY Outputs: A283 / Upper Shoreham Road Roundabout – 2033 Total Scenarios, with Existing Junction Arrangement

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	Upper Shoreham Road	0.90	8	+2	0.94	11	+2
	A283 South	1.13	46	+22	1.10	39	+14
	A283 North	1.13	62	+12	1.52	307	+69
	Total Queue	**-**	**116**	**+36**	**-**	**357**	**+85**
2	Upper Shoreham Road	0.90	8	+2	0.94	11	+2
	A283 South	1.13	45	+21	1.08	35	+10
	A283 North	1.12	60	+10	1.53	313	+75
	Total Queue	**-**	**113**	**+33**	**-**	**359**	**+87**
3	Upper Shoreham Road	0.89	7	+1	0.93	10	+1
	A283 South	1.07	31	+7	1.07	32	+7
	A283 North	1.12	56	+6	1.47	271	+33
	Total Queue	**-**	**94**	**+14**	**-**	**313**	**+41**
4	Upper Shoreham Road	0.89	7	+1	0.93	10	+1
	A283 South	1.13	45	+21	1.07	30	+5
	A283 North	1.11	53	+3	1.48	278	+40
	Total Queue	**-**	**105**	**+25**	**-**	**318**	**+46**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

11.4 Table 11B demonstrates that all proposed development scenarios result in increased queues on all arms of the roundabout during AM and PM peak hours.

Proposed Junction Improvements

11.5 It is proposed to provide the following mitigation to improve the capacity of the junction and minimise the impact of the proposed development scenarios:

A283 South:

- Increase entry width from 4.5 metres to 6.2 metres (effective flare length increase from 2.8 metres to 22.1 metres) by realigning the western kerbline within adopted highway,

A283 North:

- Increase entry width from 4.5 metres to 5.5 metres (effective flare length increase from 0.8 metres to 2.8 metres) by realigning the northeastern kerbline, and amending the splitter island.

Distance Between Arms:

- Increase distance between arms (i.e., increase size of roundabout):
  - Between A283 South and A283 North, from 17.7 metres to 18.3 metres;
  - Between A283 North and Upper Shoreham Road, from 15.4 metres to 16.7 metres;
  - Between Upper Shoreham Road and A283 South, from 15.9 metres to 16.8 metres.

11.6 A plan of the proposed junction improvements are provided as Appendix 6.3. The model output for the Proposed Development Scenarios, with proposed junction improvements is provided as Appendix 6.4. The results are summarised in Table 11C.

Table 11C ARCADY Outputs: A283 / Upper Shoreham Road Roundabout – 2033 Total Scenarios, with Proposed Junction Improvements

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	Upper Shoreham Road	0.92	9	+3	0.97	15	+6
	A283 South	0.82	4	-20	0.80	4	-21
	A283 North	1.08	44	-6	1.44	251	+13
	Total Queue	**-**	**57**	**-23**	**-**	**270**	**-2**
2	Upper Shoreham Road	0.92	9	+3	0.96	14	+5
	A283 South	0.82	4	-20	0.79	4	-21
	A283 North	1.07	41	-9	1.45	256	+18
	Total Queue	**-**	**54**	**-26**	**-**	**274**	**+2**
3	Upper Shoreham Road	0.91	8	+2	0.95	13	+4
	A283 South	0.78	3	-21	0.78	3	-22
	A283 North	1.06	36	-14	1.40	217	-21
	Total Queue	**-**	**47**	**-33**	**-**	**233**	**-39**
4	Upper Shoreham Road	0.92	9	+3	0.95	12	+3
	A283 South	0.82	4	-20	0.78	3	-22
	A283 North	1.05	35	-15	1.40	223	-15
	Total Queue	**-**	**48**	**-32**	**-**	**238**	**-34**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

11.7 Table 11C demonstrates that the proposed junction improvements would result in decreased queuing on A283 South and A283 North arms of the roundabout under all development scenarios in AM peak hour. There would continue to be minor increase in queuing on Upper Shoreham Road.

11.8 Table 11C demonstrates that the proposed junction improvements would result in decreased queuing on A283 South arm in all development scenarios in PM peak hour. There would also be decrease queuing on A283 North arm in Scenario 3 and 4.

Budget Cost Estimate for Off-Site Highway Works

11.9 A summary of the budget cost estimate for the off-site highways works for the proposed junction improvements is provided in Table 11D.

Table 11D Budget Cost Estimate: A283 / Upper Shoreham Road Roundabout

Item	Description	£
	Preliminaries 15%	£8,405.18
1.0	Site Clearance Works	£7,922.00
2.0	Earthworks	£10,427.00
3.0	Pavement	£27,335.00
4.0	Drainage	£4,400.00
5.0	Signs and Markings	£5,950.00
6.0	Other	£9,600.00
	Total	**£74,040**
	Contingency 10%	**£7,404**
	Civils Total	**£81,144**

11.10 Full details for the budget cost estimate are provided as Appendix 6.5.

12.0 Junction 9 – A283 / A259 Roundabout

12.1 The A283 / A259 junction has been assessed for capacity using TRL's Junction's 9 Software.

Existing Junction Arrangement

12.2 The ARCADY model output for 2033 Baseline Scenario with existing junction arrangement is provided as Appendix 7.1. The results are summarised in Table 12A.

Table 12A ARCADY Outputs: A283 / A259 Roundabout – 2033 Baseline Scenario

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
A259 East	1.03	29	1.65	326
A259 West	1.60	498	1.09	63
A283	0.56	1	0.93	10
Total Queue	**-**	**528**	**-**	**399**

12.3 The model output for the Proposed Development Scenarios, under the existing junction arrangement is provided as Appendix 7.2. The results are summarised in Table 12B.

Table 12B ARCADY Outputs: A283 / A259 – 2033 Total Scenarios, with Existing Junction Arrangement

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A259 East	1.06	38	+9	1.71	365	+39
	A259 West	1.64	542	+44	1.10	69	+6
	A283	0.57	1	0	0.99	19	+9
	Total Queue	**-**	**581**	**+53**	**-**	**453**	**+54**
2	A259 East	1.06	38	+9	1.69	357	+31
	A259 West	1.64	541	+43	1.10	67	+4
	A283	0.57	1	0	1.00	20	+10
	Total Queue	**-**	**580**	**+52**	**-**	**444**	**+45**
3	A259 East	1.04	32	+3	1.68	344	+18
	A259 West	1.61	510	+12	1.10	66	+3
	A283	0.56	1	0	0.96	13	+3
	Total Queue	**-**	**543**	**+15**	**-**	**423**	**+24**
4	A259 East	1.05	37	+12	1.68	342	+16
	A259 West	1.64	541	+43	1.10	66	+3
	A283	0.56	1	0	0.96	13	+3
	Total Queue	**-**	**579**	**+51**	**-**	**421**	**+22**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

12.4 Table 12B demonstrates that under all development scenarios, there is increased queueing on A29 East and A259 West arms of the roundabout in the AM peak hour, and on all arms of the junction in PM peak hour.

Proposed Junction Improvements

12.5 It is proposed to provide the following mitigation to improve the capacity of the junction and minimise the impact of the proposed development scenarios:

Roundabout Size:

- Increase size of roundabout from ICD of 26 metres to ICD of 28.5 metres; and
- Give way lines for A259 West and A283 arms of roundabout moved back, making sure visibilities work.

A259 West:

- Decrease entry width from 7.0 metres to 6.6 metres, effective flare length increased from 1.9 metres to 26 metres.

12.6 A plan of the proposed junction improvements are provided as Appendix 7.3. The model output for the Proposed Development Scenarios, with proposed junction improvements is provided as Appendix 7.4. The results are summarised in Table 12C.

Table 12C ARCADY Outputs: A283 / A259 Roundabout – 2033 Total Scenarios, with Proposed Junction Improvements

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A259 East	0.77	3	-26	1.15	88	-238
	A259 West	1.01	33	-465	0.70	2	-61
	A283	0.48	1	0	0.69	2	-8
	Total Queue	**-**	**37**	**-491**	**-**	**92**	**-307**
2	A259 East	0.77	3	-26	1.15	85	-241
	A259 West	1.01	33	-465	0.70	2	-61
	A283	0.48	1	0	0.69	2	-8
	Total Queue	**-**	**37**	**-491**	**-**	**89**	**-310**
3	A259 East	0.75	3	-26	1.13	78	-248
	A259 West	0.99	26	-472	0.70	2	-91
	A283	0.47	1	0	0.66	2	-8
	Total Queue	**-**	**30**	**-498**	**-**	**82**	**-317**
4	A259 East	0.77	3	-26	1.13	77	-249
	A259 West	1.01	33	-465	0.70	2	-61
	A283	0.47	1	0	0.66	2	-8
	Total Queue	**-**	**37**	**-498**	**-**	**81**	**-391**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

12.7 Table 12C demonstrates that the proposed junction improvements result in a significant decrease in queuing on A259 East and A259 West arms of the roundabout (with no increase in queuing on A283 North) in the AM peak hour.

12.8 Table 12C also demonstrates that the proposed junction improvements result in a significant decrease in queuing on all arms of the roundabout in the PM peak hour.

Budget Cost Estimate for Off-Site Highway Works

12.9 A summary of the budget cost estimate for the off-site highways works for the proposed junction improvements is provided in Table 12D.

Table 12D Budget Cost Estimate: A283 / A259 Roundabout

Item	Description	£
	Preliminaries 15%	£6,350.10
1.0	Site Clearance Works	£6,875.00
2.0	Earthworks	£7,415.00
3.0	Pavement	£17,344.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£10,700.00
6.0	Other	£4,000.00
	Total	**£52,684**
	Contingency 10%	**£5,268**
	Civils Total	**£57,953**

12.10 Full details for the budget cost estimate are provided as Appendix 7.5.

13.0 Junction 10 – A27 / New Monks Farm Signal Roundabout

13.1 The committed New Monks Farm signal junction (between A27 / Old Shoreham Road) has been assessed for capacity using JCT's LinSig V3 Software.

Committed Junction Arrangement

13.2 The plan of the committed junction arrangement (i.e., Vectos drawing number VN201557/PL-03) is provided as Appendix 8.1.

13.3 The LinSig model output for 2033 Baseline Scenario and Proposed Development Scenarios is provided as Appendix 8.2. The results for the 2033 Baseline Scenario are summarised in Table 13A.

Table 13A LinSig Outputs: A27 / New Monks Farm – 2033 Baseline Scenario

Arm/Lane		AM Peak Hour		PM Peak Hour	
		DoS	Mean Max Queue	DoS	Mean Max Queue
1/1	A27 East Left Ahead	72.2%	15	69.8%	14
1/2	A27 East Ahead	60.2%	10	61.7%	10
1/3	A27 East Ahead	60.3%	10	61.7%	10
2/1	Old Shoreham Rd (New Monks Farm Access) Left	47.1%	4	69.8%	8
2/2+ 2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	78.9%	8	113.9%	45
3/1	A27 West Left Ahead	81.5%	21	89.5%	24
3/2	A27 West Ahead	81.6%	21	89.6%	24
3/3	A27 West Ahead	81.5%	21	89.5%	24
4/1	Sussex Pad Left Ahead	34.4%	2	44.5%	3
Total Queue		**-**	**112**	**-**	**162**

* DoS = Degree of Saturation
* Queue = Measured in PCUs

13.4 The results for the Proposed Development Scenarios, under the committed junction arrangement, are summarised in Table 13B.

Table 13B LinSig Outputs: A27 / New Monks Farm – 2033 Total Scenarios

Scenario	Arm/Lane		AM Peak Hour			PM Peak Hour		
			DoS	Mean Max Queue	Increase in Queue (From 2033 Base)	DoS	Mean Max Queue	Increase in Queue (From 2033 Base)
1	1/1	A27 East Left Ahead	66.9%	12	-3	74.7%	16	+2
	1/2	A27 East Ahead	66.6%	12	+2	64.1%	11	+1
	1/3	A27 East Ahead	66.5%	12	+2	64.1%	11	+1
	2/1	Old Shoreham Rd (New Monks Farm Access) Left	47.1%	4	0	69.8%	8	0
	2/2+ 2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	78.9%	8	0	113.9%	45	0
	3/1	A27 West Left Ahead	81.9%	21	0	92.0%	26	+2
	3/2	A27 West Ahead	81.9%	21	0	92.1%	26	+2
	3/3	A27 West Ahead	81.9%	21	0	92.0%	26	+2
	4/1	Sussex Pad Left Ahead	38.0%	2	0	45.1%	3	0
	Total Queue		**-**	**113**	**+1**	**-**	**172**	**+10**
2	1/1	A27 East Left Ahead	72.9%	15	0	74.9%	16	+2
	1/2	A27 East Ahead	61.6%	10	0	64.2%	11	+1
	1/3	A27 East Ahead	61.6%	10	0	64.2%	11	+1
	2/1	Old Shoreham Rd (New Monks Farm Access) Left	47.1%	4	0	69.8%	8	0
	2/2+ 2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	78.9%	8	0	113.9%	45	0
	3/1	A27 West Left Ahead	83.2%	22	+1	91.3%	26	+2
	3/2	A27 West Ahead	83.2%	22	+1	91.3%	26	+2
	3/3	A27 West Ahead	83.2%	22	+1	91.4%	26	+2
	4/1	Sussex Pad Left Ahead	36.2%	2	0	44.9%	3	0
	Total Queue		**-**	**115**	**+3**	**-**	**172**	**+10**
3	1/1	A27 East Left Ahead	73.8%	15	0	73.5%	15	+1
	1/2	A27 East Ahead	61.7%	10	0	62.9%	11	+1
	1/3	A27 East Ahead	61.7%	10	0	62.9%	11	+1
	2/1	Old Shoreham Rd (New Monks Farm Access) Left	44.1%	4	0	69.8%	8	0
	2/2+ 2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	74.0%	7	-1	113.9%	45	0
	3/1	A27 West Left Ahead	83.5%	22	+1	91.1%	25	+1
	3/2	A27 West Ahead	83.4%	22	+1	91.1%	25	+1
	3/3	A27 West Ahead	83.5%	22	+1	91.1%	25	+1
	4/1	Sussex Pad Left Ahead	34.5%	2	0	44.9%	3	0
	Total Queue		**-**	**114**	**+2**	**-**	**168**	**+6**

4	1/1	A27 East Left Ahead	73.5%	15	0	73.9%	16	+2
	1/2	A27 East Ahead	61.6%	10	0	63.1%	11	+1
	1/3	A27 East Ahead	61.6%	10	0	63.2%	11	+1
	2/1	Old Shoreham Rd (New Monks Farm Access) Left	47.1%	4	0	69.8%	8	0
	2/2+ 2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	78.9%	8	0	113.9%	45	0
	3/1	A27 West Left Ahead	83.2%	22	+1	90.8%	25	+1
	3/2	A27 West Ahead	83.2%	22	+1	90.8%	25	+1
	3/3	A27 West Ahead	83.2%	22	+1	90.8%	25	+1
	4/1	Sussex Pad Left Ahead	36.2%	2	0	44.8%	3	0
	Total Queue		**-**	**115**	**+3**	**-**	**169**	**+7**

* DoS = Degree of Saturation
* Queue = Measured in PCUs

13.5 Table 13B shows that, with the exception of the Old Shoreham Road (Left Ahead) arm in the PM peak hour, all arms/lanes in both AM and PM peak hours in all proposed development scenarios operate within theoretical capacity (i.e., DoS less than 100%) on of the committed junction arrangement.

13.6 It should be noted that on the Old Shoreham Road (Left Ahead) arm in the PM peak hour, all proposed development scenarios do not increase the DoS or queue length and therefore they result in nil detriment compared to the baseline scenario.

13.7 In light of the above, it is considered that there is no requirement to propose improvements to the committed junction arrangement.

14.0 Junction 11 – A27 / A2025 (Lancing Manor) Roundabout

14.1 The Lancing Manor Roundabout, i.e., A27 / A2025 Grinstead Lane / Manor Road junction has been assessed for capacity using TRL's Junction's 9 Software.

Committed Junction Arrangement

14.2 An agreement between Highways England (now National Highways) and Adur District Council and the New Monks Farm applicant requirement that the Monks Farm applicant either enters into a S278 Agreement to undertake traffic improvements to the Lancing Manor Roundabout in accordance with Vectos' drawing number VN40408/PL-010 or pays a

contributions in full for the cost of the works. The junction improvements as per Vectos' drawing number VN40408/PL-010 is therefore regarded as 'committed highway improvements' and are therefore used to assess the baseline as well as development scenario traffic impact associated with Shoreham Cement Works study.

14.3 As such, the Lancing Manor Roundabout has been modelled as per ARCADY outputs provided by Vectos in the Transport Assessment for the New Monks Farm development. A plan of the committed junction arrangement is provided as Appendix 9.1.

14.4 The ARCADY model output for 2033 Baseline Scenario is provided as Appendix 9.2. The results are summarised in Table 14A.

Table 14A ARCADY Outputs: Lancing Manor Roundabout – 2033 Baseline Scenario with Committed Junction Arrangement

Arm	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
A27 East	1.25	338	1.30	446
A2025	1.72	541	0.89	7
A27 West	1.29	362	1.45	512
Manor Road	1.06	23	0.53	1
Total Queue	**-**	**1,264**	**-**	**966**

14.5 The model output for the Proposed Development Scenarios, under the committed junction arrangement is provided as Appendix 9.3. The results are summarised in Table 14B.

Table 14B ARCADY Outputs: Lancing Manor Roundabout – 2033 Total Scenarios, with Committed Junction Arrangement

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A27 East	1.17	403	+65	1.22	538	+92
	A2025	1.58	513	-28	0.83	5	-2
	A27 West	1.20	405	+43	1.31	546	+34
	Manor Road	0.97	14	-9	0.49	1	0
	Total Queue	**-**	**1,335**	**+71**	**-**	**1,090**	**+124**
2	A27 East	1.16	388	+50	1.23	545	+99
	A2025	1.58	511	-30	0.82	4	-3
	A27 West	1.20	403	+41	1.30	528	+16
	Manor Road	0.97	14	-9	0.48	1	0
	Total Queue	**-**	**1,316**	**+52**	**-**	**1,078**	**+112**
3	A27 East	1.15	364	+26	1.20	486	+40
	A2025	1.57	504	-37	0.82	4	-3
	A27 West	1.19	372	+10	1.30	524	+12
	Manor Road	0.96	13	-10	0.48	1	0
	Total Queue	**-**	**1,253**	**-11**	**-**	**1,015**	**+49**

4	A27 East	1.15	355	+17	1.21	501	+55
	A2025	1.58	514	-27	0.81	4	-3
	A27 West	1.20	401	+39	1.29	514	+2
	Manor Road	0.97	14	-9	0.48	1	0
	Total Queue	**-**	**1,284**	**+20**	**-**	**1,020**	**+54**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

14.6 Table 14B shows that all proposed development scenarios result in an increase in queueing on the A27 East arm and A27 West arm of the roundabout during the AM and PM peak hours. Despite a decrease in queues on A2025 Grinstead Lane and Manor Road in the AM peak hour, and on Grinstead Lane in PM peak hour, the total queues increase in all development scenarios.

Proposed Junction Improvements

14.7 It is proposed to provide the following mitigation to improve the capacity of the junction further and minimise the impact of the proposed development scenarios:

Roundabout Size:

- Increase size of roundabout to ICD of 60 metres; and
- Circulatory lanes broadly as per committed arrangement, with additional road markings and directional arrows

A27 East

- Increase entry width from 9.8 metres to 11.3 metres

A2025 Grinstead Lane:

- Increase entry width from 11.5 metres to 12.8 metres (effective flare length increased from 10.0 metres to 15.0 metres)

A27 West:

- Increase entry width from 11.5 metres to 13.1 metres

Manor Road:

- Increase approach road half width from 4.1 metres to 5.4 metres
- Increase entry width from 7.4 metres to 8.0 metres

14.8 **It should be noted that these improvements require land take from Lancing Manor Estate.**

14.9 A plan of the proposed junction improvements are provided as Appendix 9.4. The model output for the Proposed Development Scenarios, with proposed junction improvements is provided as Appendix 9.5. The results are summarised in Table 14C.

Table 14C ARCADY Outputs: Lancing Manor Roundabout – 2033 Total Scenarios, with Proposed Junction Improvements

Scenario	Arm	AM Peak Hour			PM Peak Hour		
		RFC	Queue	Increase in Queue (From 2033 Base)	RFC	Queue	Increase in Queue (From 2033 Base)
1	A27 East	1.10	155	-183	1.05	150	-296
	A2025	1.71	466	-75	0.82	4	-3
	A27 West	1.27	340	-22	1.26	466	-46
	Manor Road	0.89	7	-16	0.41	1	0
	Total Queue	**-**	**968**	**-296**	**-**	**621**	**-345**
2	A27 East	1.10	147	-191	1.16	234	-212
	A2025	1.71	462	-79	0.89	7	0
	A27 West	1.27	338	-24	1.41	455	-57
	Manor Road	0.89	7	-16	0.45	1	0
	Total Queue	**-**	**954**	**-310**	**-**	**697**	**-269**
3	A27 East	1.09	134	-204	1.13	200	-246
	A2025	1.71	452	-89	0.90	7	0
	A27 West	1.25	308	-54	1.40	451	-61
	Manor Road	0.89	6	-17	0.45	1	0
	Total Queue	**-**	**900**	**-364**	**-**	**659**	**-307**
4	A27 East	1.08	129	-209	1.14	208	-238
	A2025	1.72	461	-80	0.89	7	0
	A27 West	1.27	337	-25	1.40	441	-71
	Manor Road	0.89	7	-16	0.45	1	0
	Total Queue	**-**	**934**	**-330**	**-**	**657**	**-309**

* RFC = Ratio of flow to capacity
* Queue = Measured in vehicles

14.10 Table 14C demonstrates that the proposed junction improvements would produce significant decrease in queueing compared to the 2033 Baseline Scenario with the committed junction arrangement.

Budget Cost Estimate for Off-Site Highway Works

14.11 A summary of the budget cost estimate for the off-site highways works associated with the committed junction arrangements and ADL's proposed junction arrangements is provided in Table 11D.

14.12 The costs associated with the ADL's proposed junction arrangements have been calculated on the assumption that committed junction as per Vectos' drawing number VN40408/PL-010 is not built by 2033.

Table 14D Budget Cost Estimate: Lancing Manor Roundabout

Item	Description	Committed Junction Arrangement	ADL Proposed Arrangement	Difference
		£	£	£
	Preliminaries 15%	£25,993.86	£66,238.47	£40,244.61
1.0	Site Clearance Works	£27,933.00	£55,084.00	£27,151.00
2.0	Earthworks	£37,995.40	£158,493.80	£120,498.40
3.0	Pavement	£91,764.00	£183,812.00	£92,048.00
4.0	Drainage	£5,500.00	£18,200.00	£12,700.00
5.0	Signs and Markings	£10,100.00	£26,000.00	£15,900.00
6.0	Other	£33,250.00	£55,475.00	£22,225.00
	Total	**£232,536.00**	**£563,303.00**	**£330,767.00**
	Contingency 10%	**£23,254**	**£56,330.00**	**£33,076.00**
	Civils Total	**£255,790.00**	**£619,634.00**	**£363,844.00**

14.13 Table 14D shows that the committed junction arrangement could cost approximately £256,000 to construct, whilst the proposed junction arrangement put forward by ADL to mitigate the impact of Shoreham Cement Works development could cost approximately £620,000 to construct. This excludes costs related to purchase of land from Lancing Manor.

14.14 Therefore, the proposed junction arrangement to mitigate Shoreham Cement Works development could require an additional £364,000 to build when compared to the committed junction arrangement. As discussed above, this does not take into account cost related to purchase of land from Lancing Manor Estate.

14.15 Full details for the budget cost estimate for the committed junction improvements, and ADL's proposed junction improvements are provided as Appendix 9.6 and Appendix 9.7, respectively.

15.0 SUMMARY AND CONCLUSIONS

15.1 ADL have produced this Technical Note 3 (TN3) to summarise the junction capacity assessment of the four development scenarios at the each of the junctions subject to this transport study.

15.2 ADL have assessed each of the offsite junctions with their existing (or committed) junction arrangement in the 2033 Baseline Scenario, and with the four proposed development scenarios. The following junctions are predicted to be severely impacted by the proposed development:

- Junction 1: A283/A24 (Washington) Roundabout;

- Junction 2: A283/Water Lane/Chanctonbury Ring Road crossroads;
- Junction 3: A283/Maudlin Lane/Clays Hill/Castle Lane/The Street Roundabout;
- Junction 7: A283/A27 Slips Roundabout;
- Junction 8: A283/Upper Shoreham Road Roundabout;
- Junction 9: A283/A259 Roundabout; and
- Junction 11: A27/A2025/Manor Road (Lancing Manor) Roundabout.

15.3 ADL have proposed mitigation at each of these junctions to improve capacity of the junction and reduce the impact of the proposed development scenarios, compared to the 2033 Baseline Scenario with existing (or committed) junction arrangement.

15.4 ADL have also provided budget cost estimates for the proposed off-site highways works and these are summarised in Table 15A.

Table 15A Budget Cost Estimate Summary – Off Site Highway Works

Junction	Junction Name	Total Cost (inc. Contingency 10%)
1	A283/A24 (Washington) Roundabout	£325,941 (see para 15.6 below)
2	A283/Water Lane/Chanctonbury Ring Road crossroads	£20,574 (see para 15.6 below)
3	A283/Maudlin Lane/Clays Hill/Castle Lane/The Street Roundabout	£48,317
7	A283/A27 Slips Roundabout	£525,282
8	A283/Upper Shoreham Road Roundabout	£81,144
9	A283/A259 Roundabout	£57,953
11	A27/A2025/Manor Road (Lancing Manor) Roundabout	£619,634
Total		**£1,678,845** (see para 15.6 below)

15.5 Table 15A shows that the overall costs associated with the off-site highway works is approximately £1,678,845. This excludes cost associated with purchase of land from Lancing Manor Estate in relation to Lancing Manor Roundabout improvements.

15.6 Junctions 1 and 2 may not require any mitigation should Highway Authority consider that the increase in queues as a result of the development scenarios does not warrant any improvements. Should this be the case, the overall costs associated with the off-site highway works is approximately £1,332,330.

15.7 At the time of producing TN3, the site access arrangement for Shoreham Cement Works is under review.

1.0 Junction 1 – A283 / A24 (Washington) Roundabout

1.1 ARCADY Output: 2033 Baseline Scenario
1.2 ARCADY Outputs: Proposed Development Scenarios
1.3 Proposed Junction Improvements
1.4 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
1.5 Budget Cost Estimate for Off-Site Highway Works

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 1 - A -Washington Rdbt - Existing Jct - 2033 Base incl permitted.j9
Path: D:\5201 Shoreham\Amol\1 - Washington Roundabout
Report generation date: 11/11/2021 10:34:22

»2033 Base including permitted, AM
»2033 Base including permitted, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Base including permitted													
1 - A283 East	3.8	15.67	0.80	C	39.65	E	-8 % [3 - A283 West]	4.6	20.01	0.83	C	105.98	F	-14 % [4 - A24 North]
2 - A24 South	5.9	12.80	0.86	B				1.7	4.17	0.63	A			
3 - A283 West	45.0	126.09	1.06	F				10.5	30.37	0.93	D			
4 - A24 North	9.1	20.90	0.91	C				162.4	255.46	1.17	F			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

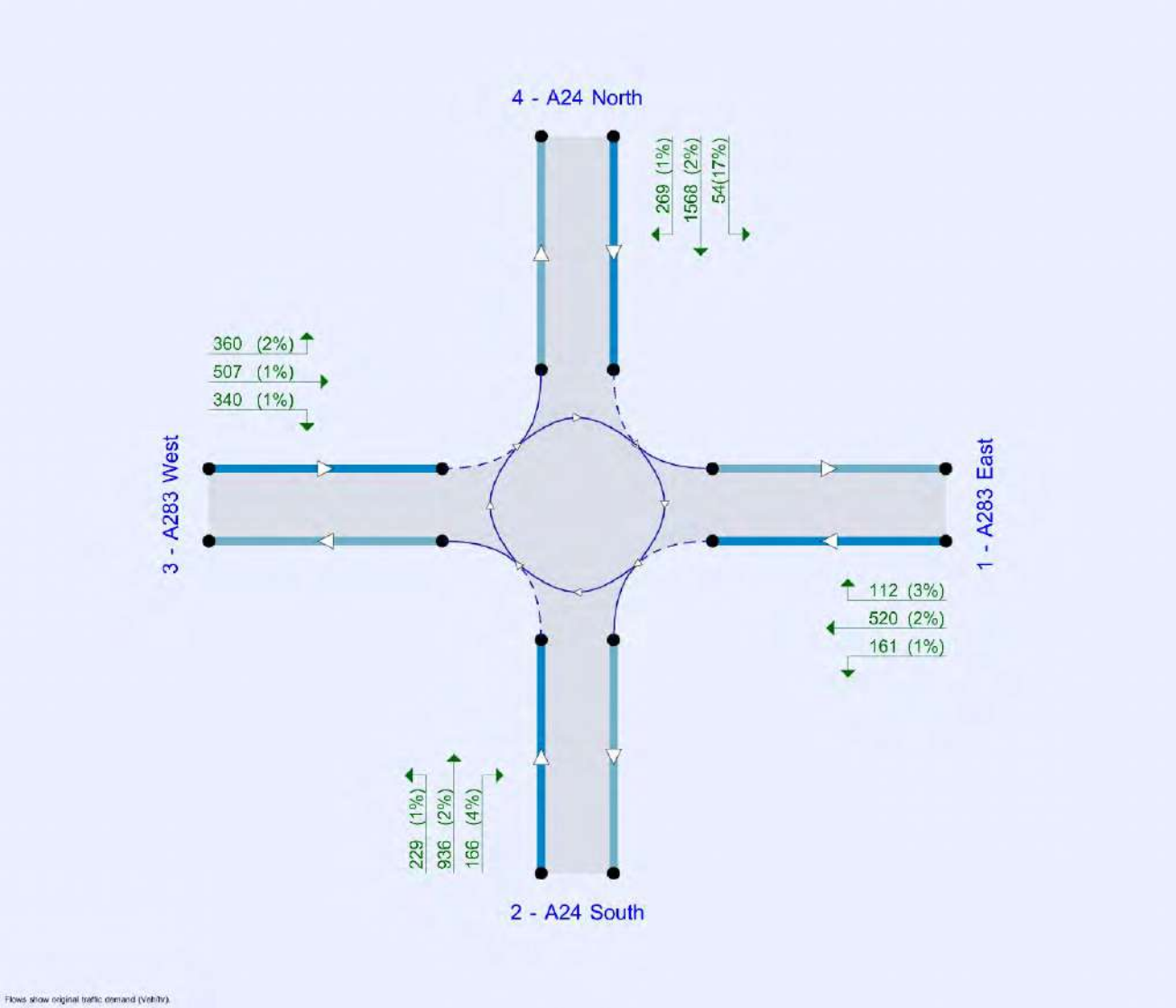
File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

APPENDIX 1.1
ARCADY OUTPUT: 2033 BASELINE SCENARIO



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base including permitted, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	39.65	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - A283 West

Arms

Arms

Arm	Name	Description
1	A283 East	
2	A24 South	
3	A283 West	
4	A24 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 East	6.20	7.70	9.0	22.8	91.4	17.0	
2 - A24 South	8.20	10.50	9.8	65.8	75.1	15.0	
3 - A283 West	4.80	8.50	27.7	28.0	91.4	38.0	
4 - A24 North	7.50	8.20	4.3	45.9	75.1	12.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 East	0.549	2286
2 - A24 South	0.722	3131
3 - A283 West	0.524	2209
4 - A24 North	0.647	2629

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	821	100.000
2 - A24 South		ONE HOUR	✓	1575	100.000
3 - A283 West		ONE HOUR	✓	1061	100.000
4 - A24 North		ONE HOUR	✓	1510	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	124	486	211
	2 - A24 South	144	0	214	1217
	3 - A283 West	521	221	2	317
	4 - A24 North	94	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	11
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	24	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.80	15.67	3.8	C	753	1130
2 - A24 South	0.86	12.80	5.9	B	1445	2168
3 - A283 West	1.06	126.09	45.0	F	974	1460
4 - A24 North	0.91	20.90	9.1	C	1386	2078

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	618	155	1228	1434	0.431	615	568	0.0	0.8	4.381	A
2 - A24 South	1186	296	860	2307	0.514	1182	983	0.0	1.0	3.186	A
3 - A283 West	799	200	1262	1412	0.566	794	780	0.0	1.3	5.780	A
4 - A24 North	1137	284	665	1986	0.573	1132	1391	0.0	1.3	4.189	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	738	185	1468	1303	0.566	736	679	0.8	1.3	6.321	A
2 - A24 South	1416	354	1029	2183	0.649	1413	1175	1.0	1.8	4.657	A
3 - A283 West	954	238	1509	1281	0.745	948	933	1.3	2.8	10.621	B
4 - A24 North	1357	339	794	1905	0.713	1353	1663	1.3	2.4	6.472	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	904	226	1764	1142	0.791	895	787	1.3	3.5	14.078	B
2 - A24 South	1734	434	1249	2020	0.858	1719	1409	1.8	5.6	11.441	B
3 - A283 West	1168	292	1835	1108	1.054	1075	1134	2.8	26.0	60.779	F
4 - A24 North	1663	416	911	1831	0.908	1640	1999	2.4	8.1	17.063	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	904	226	1785	1131	0.800	903	798	3.5	3.8	15.667	C
2 - A24 South	1734	434	1262	2011	0.862	1733	1426	5.6	5.9	12.795	B
3 - A283 West	1168	292	1850	1100	1.062	1092	1144	26.0	45.0	126.092	F
4 - A24 North	1663	416	924	1823	0.912	1659	2018	8.1	9.1	20.898	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	738	185	1531	1270	0.581	748	767	3.8	1.4	7.019	A
2 - A24 South	1416	354	1048	2169	0.653	1432	1231	5.9	1.9	4.990	A
3 - A283 West	954	238	1530	1269	0.751	1121	949	45.0	3.3	46.235	E
4 - A24 North	1357	339	917	1829	0.742	1382	1734	9.1	3.0	8.477	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	618	155	1242	1426	0.433	621	576	1.4	0.8	4.481	A
2 - A24 South	1186	296	868	2301	0.515	1189	994	1.9	1.1	3.248	A
3 - A283 West	799	200	1270	1407	0.568	807	787	3.3	1.3	6.074	A
4 - A24 North	1137	284	674	1980	0.574	1143	1403	3.0	1.4	4.338	A

2033 Base including permitted, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	105.98	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	793	100.000
2 - A24 South		ONE HOUR	✓	1333	100.000
3 - A283 West		ONE HOUR	✓	1209	100.000
4 - A24 North		ONE HOUR	✓	1961	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	161	520	112
	2 - A24 South	166	2	229	936
	3 - A283 West	507	340	2	360
	4 - A24 North	54	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	17	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.83	20.01	4.6	C	728	1092
2 - A24 South	0.63	4.17	1.7	A	1223	1835
3 - A283 West	0.93	30.37	10.5	D	1109	1664
4 - A24 North	1.17	255.46	162.4	F	1799	2699

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	597	149	1684	1318	0.453	594	545	0.0	0.8	4.947	A
2 - A24 South	1004	251	728	2540	0.395	1001	1549	0.0	0.7	2.335	A
3 - A283 West	910	228	965	1668	0.546	905	764	0.0	1.2	4.695	A
4 - A24 North	1476	369	762	2076	0.711	1467	1109	0.0	2.4	5.823	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	713	178	2004	1142	0.624	710	651	0.8	1.6	8.257	A
2 - A24 South	1198	300	869	2438	0.492	1197	1845	0.7	1.0	2.899	A
3 - A283 West	1087	272	1154	1567	0.693	1083	912	1.2	2.2	7.370	A
4 - A24 North	1763	441	911	1980	0.890	1744	1325	2.4	7.1	14.252	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	873	218	2169	1052	0.830	862	780	1.6	4.4	17.968	C
2 - A24 South	1468	367	1009	2337	0.628	1465	2022	1.0	1.7	4.117	A
3 - A283 West	1331	333	1401	1436	0.927	1303	1073	2.2	9.2	23.362	C
4 - A24 North	2159	540	1100	1859	1.161	1849	1604	7.1	84.7	97.259	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	873	218	2174	1049	0.832	872	790	4.4	4.6	20.012	C
2 - A24 South	1468	367	1017	2331	0.630	1468	2030	1.7	1.7	4.169	A
3 - A283 West	1331	333	1405	1434	0.928	1326	1080	9.2	10.5	30.367	D
4 - A24 North	2159	540	1116	1849	1.168	1848	1614	84.7	162.4	242.985	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	713	178	2216	1026	0.695	722	673	4.6	2.4	12.173	B
2 - A24 South	1198	300	915	2405	0.498	1201	2023	1.7	1.0	2.997	A
3 - A283 West	1087	272	1166	1560	0.697	1120	949	10.5	2.4	8.744	A
4 - A24 North	1763	441	938	1963	0.898	1951	1348	162.4	115.3	255.463	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	597	149	2134	1071	0.558	601	562	2.4	1.3	7.738	A
2 - A24 South	1004	251	814	2477	0.405	1005	1921	1.0	0.7	2.446	A
3 - A283 West	910	228	986	1656	0.550	915	833	2.4	1.2	4.887	A
4 - A24 North	1476	369	769	2071	0.713	1927	1132	115.3	2.7	82.418	F

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 1 - B - Washington Rdbt - Existing Jct - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\1 - Washington Roundabout
Report generation date: 11/11/2021 10:37:36

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A283 East	4.6	18.19	0.83	C	46.51	E	-9 % [3 - A283 West]	5.0	21.03	0.84	C	116.86	F	-14 % [4 - A24 North]
2 - A24 South	6.5	14.08	0.87	B				1.7	4.24	0.63	A			
3 - A283 West	56.6	153.59	1.09	F				12.2	34.77	0.94	D			
4 - A24 North	9.4	21.44	0.91	C				174.1	281.95	1.18	F			
Scenario 2 Total														
1 - A283 East	4.3	17.32	0.82	C	45.02	E	-9 % [3 - A283 West]	5.3	22.25	0.85	C	110.48	F	-14 % [4 - A24 North]
2 - A24 South	6.4	13.75	0.87	B				1.7	4.25	0.63	A			
3 - A283 West	54.4	148.23	1.08	F				11.6	33.37	0.94	D			
4 - A24 North	9.2	20.98	0.91	C				166.9	265.66	1.17	F			
Scenario 3 Total														
1 - A283 East	4.2	17.04	0.82	C	44.08	E	-8 % [3 - A283 West]	5.0	21.25	0.84	C	110.99	F	-14 % [4 - A24 North]
2 - A24 South	6.3	13.55	0.87	B				1.7	4.23	0.63	A			
3 - A283 West	52.9	144.59	1.08	F				11.5	32.98	0.94	D			
4 - A24 North	9.1	20.81	0.91	C				167.7	267.19	1.17	F			
Scenario 4 Total														
1 - A283 East	4.0	16.46	0.81	C	43.34	E	-8 % [3 - A283 West]	4.9	21.01	0.84	C	107.77	F	-14 % [4 - A24 North]
2 - A24 South	6.2	13.35	0.87	B				1.7	4.21	0.63	A			
3 - A283 West	51.6	141.41	1.08	F				11.0	31.76	0.93	D			
4 - A24 North	9.2	21.05	0.91	C				164.3	259.30	1.17	F			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 1.2
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS

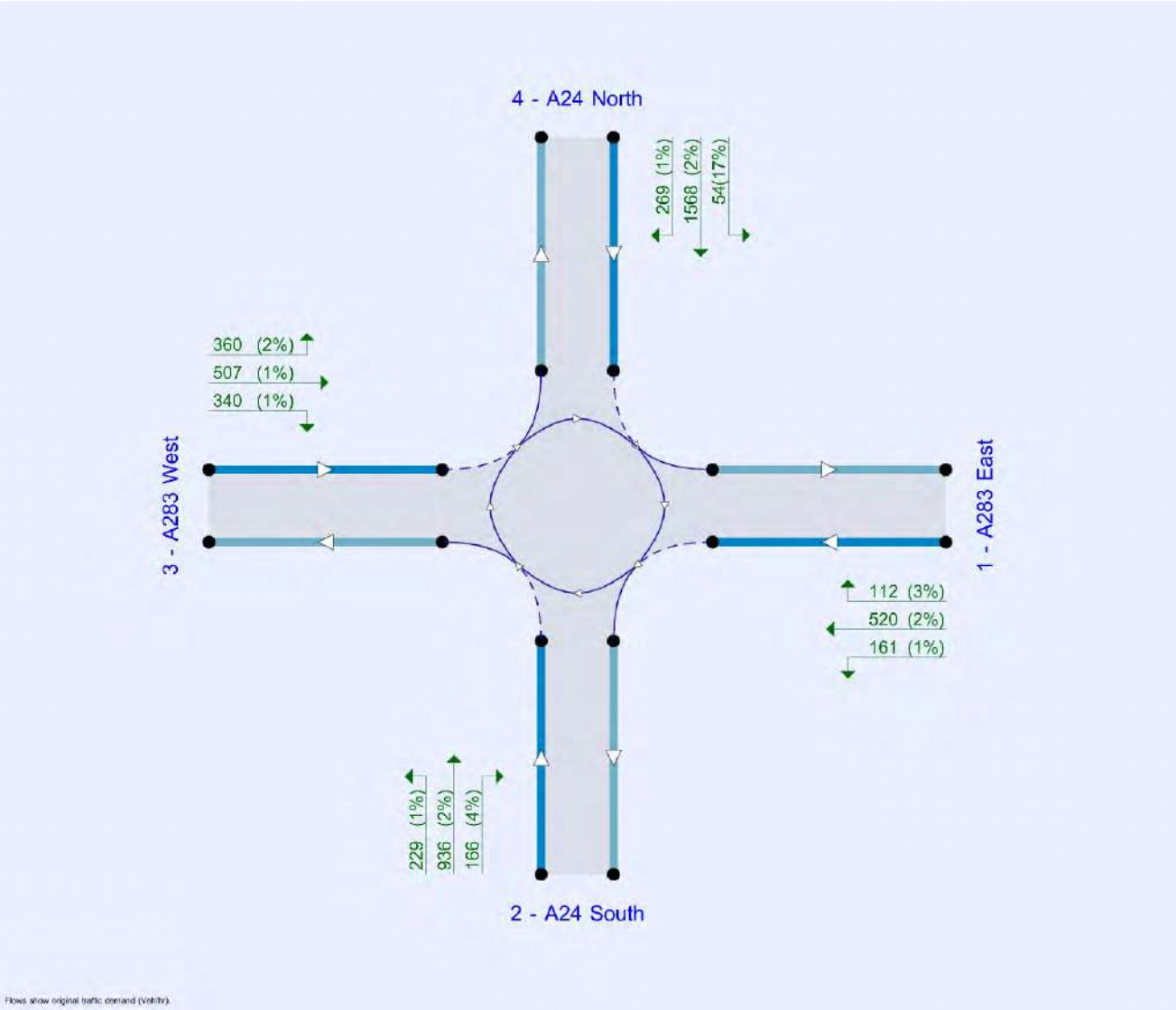
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	46.51	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-9	3 - A283 West

Arms

Arms

Arm	Name	Description
1	A283 East	
2	A24 South	
3	A283 West	
4	A24 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 East	6.20	7.70	9.0	22.8	91.4	17.0	
2 - A24 South	8.20	10.50	9.8	65.8	75.1	15.0	
3 - A283 West	4.80	8.50	27.7	28.0	91.4	38.0	
4 - A24 North	7.50	8.20	4.9	45.9	75.1	12.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 East	0.549	2286
2 - A24 South	0.722	3131
3 - A283 West	0.524	2209
4 - A24 North	0.648	2636

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	857	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1077	100.000
4 - A24 North		ONE HOUR	✓	1518	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	129	499	229
	2 - A24 South	148	0	214	1217
	3 - A283 West	537	221	2	317
	4 - A24 North	102	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	22	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.83	18.19	4.6	C	786	1180
2 - A24 South	0.87	14.08	6.5	B	1449	2173
3 - A283 West	1.09	153.59	56.6	F	988	1482
4 - A24 North	0.91	21.44	9.4	C	1393	2089

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	645	161	1228	1439	0.448	642	589	0.0	0.8	4.500	A
2 - A24 South	1189	297	883	2292	0.519	1184	986	0.0	1.1	3.239	A
3 - A283 West	811	203	1278	1405	0.577	805	790	0.0	1.3	5.957	A
4 - A24 North	1143	286	679	1983	0.576	1137	1404	0.0	1.3	4.203	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	770	193	1468	1308	0.589	768	704	0.8	1.4	6.639	A
2 - A24 South	1419	355	1056	2164	0.656	1416	1179	1.1	1.9	4.791	A
3 - A283 West	968	242	1528	1272	0.761	961	945	1.3	3.0	11.342	B
4 - A24 North	1365	341	811	1901	0.718	1360	1678	1.3	2.5	6.603	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	944	236	1759	1149	0.822	932	807	1.4	4.2	15.911	C
2 - A24 South	1739	435	1281	1999	0.870	1722	1410	1.9	6.0	12.333	B
3 - A283 West	1186	296	1857	1098	1.080	1072	1146	3.0	31.4	70.134	F
4 - A24 North	1671	418	918	1834	0.911	1648	2011	2.5	8.4	17.493	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	944	236	1780	1137	0.830	942	816	4.2	4.6	18.189	C
2 - A24 South	1739	435	1295	1988	0.874	1737	1427	6.0	6.5	14.080	B
3 - A283 West	1186	296	1874	1089	1.088	1085	1158	31.4	56.6	153.588	F
4 - A24 North	1671	418	928	1827	0.915	1667	2030	8.4	9.4	21.439	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	770	193	1540	1269	0.607	782	816	4.6	1.6	7.564	A
2 - A24 South	1419	355	1078	2149	0.661	1438	1245	6.5	2.0	5.187	A
3 - A283 West	968	242	1553	1259	0.769	1179	963	56.6	3.9	77.327	F
4 - A24 North	1365	341	967	1804	0.756	1389	1765	9.4	3.2	9.160	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	645	161	1243	1431	0.451	648	598	1.6	0.8	4.619	A
2 - A24 South	1189	297	892	2285	0.520	1192	999	2.0	1.1	3.306	A
3 - A283 West	811	203	1287	1400	0.579	821	797	3.9	1.4	6.323	A
4 - A24 North	1143	286	691	1976	0.578	1150	1417	3.2	1.4	4.396	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	116.86	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	812	100.000
2 - A24 South		ONE HOUR	✓	1338	100.000
3 - A283 West		ONE HOUR	✓	1222	100.000
4 - A24 North		ONE HOUR	✓	1977	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	164	531	117
	2 - A24 South	171	2	229	936
	3 - A283 West	520	340	2	360
	4 - A24 North	70	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	13	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	21.03	5.0	C	745	1118
2 - A24 South	0.63	4.24	1.7	A	1228	1842
3 - A283 West	0.94	34.77	12.2	D	1121	1682
4 - A24 North	1.18	281.95	174.1	F	1814	2721

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	611	153	1684	1319	0.463	608	570	0.0	0.9	5.038	A
2 - A24 South	1007	252	740	2531	0.398	1005	1551	0.0	0.7	2.354	A
3 - A283 West	920	230	973	1664	0.553	915	772	0.0	1.2	4.778	A
4 - A24 North	1488	372	775	2073	0.718	1478	1112	0.0	2.5	5.956	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	730	182	2002	1144	0.638	727	681	0.9	1.7	8.550	A
2 - A24 South	1203	301	883	2428	0.495	1202	1846	0.7	1.0	2.932	A
3 - A283 West	1099	275	1163	1563	0.703	1094	922	1.2	2.3	7.612	A
4 - A24 North	1777	444	927	1976	0.899	1757	1330	2.5	7.6	15.166	C

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	894	224	2150	1063	0.841	882	812	1.7	4.7	18.765	C
2 - A24 South	1473	368	1023	2327	0.633	1470	2009	1.0	1.7	4.187	A
3 - A283 West	1345	336	1411	1431	0.940	1313	1082	2.3	10.3	25.573	D
4 - A24 North	2177	544	1116	1855	1.174	1845	1608	7.6	90.5	103.506	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	894	224	2154	1061	0.843	893	823	4.7	5.0	21.027	C
2 - A24 South	1473	368	1031	2321	0.635	1473	2016	1.7	1.7	4.244	A
3 - A283 West	1345	336	1415	1429	0.941	1338	1089	10.3	12.2	34.770	D
4 - A24 North	2177	544	1134	1843	1.181	1842	1619	90.5	174.1	260.244	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	730	182	2196	1037	0.704	740	707	5.0	2.5	12.484	B
2 - A24 South	1203	301	926	2397	0.502	1206	2010	1.7	1.0	3.031	A
3 - A283 West	1099	275	1175	1556	0.706	1137	957	12.2	2.5	9.361	A
4 - A24 North	1777	444	958	1956	0.909	1945	1354	174.1	132.1	281.955	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	611	153	2194	1038	0.589	615	593	2.5	1.5	8.595	A
2 - A24 South	1007	252	836	2461	0.409	1009	1973	1.0	0.7	2.481	A
3 - A283 West	920	230	996	1651	0.557	925	849	2.5	1.3	4.990	A
4 - A24 North	1488	372	783	2069	0.720	2005	1138	132.1	3.0	112.428	F

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	45.02	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-9	3 - A283 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	846	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1075	100.000
4 - A24 North		ONE HOUR	✓	1513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	127	496	223
	2 - A24 South	148	0	214	1217
	3 - A283 West	535	221	2	317
	4 - A24 North	97	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.82	17.32	4.3	C	776	1164
2 - A24 South	0.87	13.75	6.4	B	1449	2173
3 - A283 West	1.08	148.23	54.4	F	986	1480
4 - A24 North	0.91	20.98	9.2	C	1388	2083

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	637	159	1228	1437	0.443	634	584	0.0	0.8	4.463	A
2 - A24 South	1189	297	877	2296	0.518	1184	985	0.0	1.1	3.226	A
3 - A283 West	809	202	1273	1407	0.575	804	788	0.0	1.3	5.921	A
4 - A24 North	1139	285	678	1984	0.574	1134	1399	0.0	1.3	4.211	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	761	190	1468	1307	0.582	758	697	0.8	1.4	6.538	A
2 - A24 South	1419	355	1048	2170	0.654	1416	1178	1.1	1.9	4.758	A
3 - A283 West	966	242	1523	1275	0.758	960	942	1.3	3.0	11.200	B
4 - A24 North	1360	340	810	1901	0.715	1356	1673	1.3	2.5	6.545	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	931	233	1760	1147	0.812	921	801	1.4	4.0	15.303	C
2 - A24 South	1739	435	1272	2005	0.867	1722	1409	1.9	5.9	12.108	B
3 - A283 West	1184	296	1851	1101	1.075	1074	1144	3.0	30.4	68.316	F
4 - A24 North	1666	416	919	1833	0.909	1643	2006	2.5	8.2	17.197	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	931	233	1781	1135	0.820	930	810	4.0	4.3	17.324	C
2 - A24 South	1739	435	1286	1995	0.872	1737	1425	5.9	6.4	13.746	B
3 - A283 West	1184	296	1867	1092	1.083	1087	1155	30.4	54.4	148.234	F
4 - A24 North	1666	416	930	1826	0.912	1662	2025	8.2	9.2	20.978	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	761	190	1538	1269	0.599	772	805	4.3	1.5	7.388	A
2 - A24 South	1419	355	1069	2155	0.659	1437	1241	6.4	2.0	5.136	A
3 - A283 West	966	242	1546	1262	0.766	1169	959	54.4	3.7	70.733	F
4 - A24 North	1360	340	959	1808	0.752	1384	1756	9.2	3.1	8.938	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	637	159	1242	1429	0.446	640	593	1.5	0.8	4.574	A
2 - A24 South	1189	297	885	2290	0.519	1192	997	2.0	1.1	3.291	A
3 - A283 West	809	202	1283	1402	0.577	819	795	3.7	1.4	6.270	A
4 - A24 North	1139	285	689	1977	0.576	1146	1412	3.1	1.4	4.370	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	110.48	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	815	100.000
2 - A24 South		ONE HOUR	✓	1336	100.000
3 - A283 West		ONE HOUR	✓	1217	100.000
4 - A24 North		ONE HOUR	✓	1968	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	164	533	118
	2 - A24 South	169	2	229	936
	3 - A283 West	515	340	2	360
	4 - A24 North	61	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	15	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.85	22.25	5.3	C	748	1122
2 - A24 South	0.63	4.25	1.7	A	1226	1839
3 - A283 West	0.94	33.37	11.6	D	1117	1675
4 - A24 North	1.17	265.66	166.9	F	1806	2709

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	614	153	1684	1319	0.465	610	558	0.0	0.9	5.055	A
2 - A24 South	1006	251	742	2530	0.398	1003	1552	0.0	0.7	2.354	A
3 - A283 West	916	229	972	1664	0.551	911	774	0.0	1.2	4.752	A
4 - A24 North	1482	370	770	2076	0.714	1472	1113	0.0	2.4	5.865	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	733	183	2004	1143	0.641	729	667	0.9	1.7	8.619	A
2 - A24 South	1201	300	886	2426	0.495	1200	1847	0.7	1.0	2.933	A
3 - A283 West	1094	274	1162	1563	0.700	1090	923	1.2	2.3	7.537	A
4 - A24 North	1769	442	921	1980	0.894	1750	1331	2.4	7.3	14.570	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	897	224	2161	1057	0.849	885	797	1.7	4.9	19.589	C
2 - A24 South	1471	368	1027	2324	0.633	1468	2019	1.0	1.7	4.193	A
3 - A283 West	1340	335	1410	1432	0.936	1309	1085	2.3	10.0	24.880	C
4 - A24 North	2167	542	1110	1859	1.166	1849	1610	7.3	86.9	99.537	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	897	224	2166	1054	0.851	896	808	4.9	5.3	22.254	C
2 - A24 South	1471	368	1036	2317	0.635	1471	2026	1.7	1.7	4.252	A
3 - A283 West	1340	335	1414	1430	0.937	1333	1093	10.0	11.6	33.367	D
4 - A24 North	2167	542	1127	1847	1.173	1847	1620	86.9	166.9	249.462	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	733	183	2208	1031	0.711	744	691	5.3	2.6	12.967	B
2 - A24 South	1201	300	932	2393	0.502	1204	2020	1.7	1.0	3.034	A
3 - A283 West	1094	274	1175	1556	0.703	1131	961	11.6	2.4	9.163	A
4 - A24 North	1769	442	950	1961	0.902	1949	1355	166.9	121.9	265.656	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	614	153	2158	1058	0.580	618	578	2.6	1.4	8.264	A
2 - A24 South	1006	251	833	2464	0.408	1007	1943	1.0	0.7	2.472	A
3 - A283 West	916	229	994	1652	0.555	921	846	2.4	1.3	4.954	A
4 - A24 North	1482	370	777	2072	0.715	1958	1137	121.9	2.8	93.687	F

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	44.08	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - A283 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	842	100.000
2 - A24 South		ONE HOUR	✓	1578	100.000
3 - A283 West		ONE HOUR	✓	1073	100.000
4 - A24 North		ONE HOUR	✓	1512	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	127	494	221
	2 - A24 South	147	0	214	1217
	3 - A283 West	533	221	2	317
	4 - A24 North	96	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	11
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	24	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.82	17.04	4.2	C	773	1159
2 - A24 South	0.87	13.55	6.3	B	1448	2172
3 - A283 West	1.08	144.59	52.9	F	985	1477
4 - A24 North	0.91	20.81	9.1	C	1387	2081

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	634	158	1228	1437	0.441	631	581	0.0	0.8	4.450	A
2 - A24 South	1188	297	874	2298	0.517	1184	985	0.0	1.1	3.218	A
3 - A283 West	808	202	1271	1408	0.574	803	786	0.0	1.3	5.900	A
4 - A24 North	1138	285	676	1985	0.574	1133	1398	0.0	1.3	4.201	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	757	189	1468	1306	0.580	755	694	0.8	1.4	6.502	A
2 - A24 South	1419	355	1045	2172	0.653	1415	1178	1.1	1.9	4.738	A
3 - A283 West	965	241	1520	1276	0.756	958	940	1.3	3.0	11.102	B
4 - A24 North	1359	340	807	1903	0.714	1355	1671	1.3	2.4	6.517	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	927	232	1761	1146	0.809	917	798	1.4	3.9	15.101	C
2 - A24 South	1737	434	1268	2007	0.865	1721	1410	1.9	5.8	11.974	B
3 - A283 West	1181	295	1848	1102	1.072	1075	1142	3.0	29.7	67.077	F
4 - A24 North	1665	416	917	1833	0.908	1642	2005	2.4	8.1	17.085	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	927	232	1782	1135	0.817	926	808	3.9	4.2	17.038	C
2 - A24 South	1737	434	1281	1998	0.870	1736	1426	5.8	6.3	13.550	B
3 - A283 West	1181	295	1864	1094	1.080	1088	1153	29.7	52.9	144.588	F
4 - A24 North	1665	416	929	1826	0.911	1661	2024	8.1	9.1	20.815	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	757	189	1537	1269	0.596	768	799	4.2	1.5	7.324	A
2 - A24 South	1419	355	1065	2157	0.658	1436	1240	6.3	2.0	5.105	A
3 - A283 West	965	241	1543	1264	0.763	1162	957	52.9	3.7	66.347	F
4 - A24 North	1359	340	952	1812	0.750	1383	1753	9.1	3.1	8.822	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	634	158	1242	1429	0.444	637	590	1.5	0.8	4.559	A
2 - A24 South	1188	297	882	2292	0.518	1191	997	2.0	1.1	3.283	A
3 - A283 West	808	202	1280	1403	0.576	817	793	3.7	1.4	6.236	A
4 - A24 North	1138	285	687	1978	0.576	1145	1411	3.1	1.4	4.358	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	110.99	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	808	100.000
2 - A24 South		ONE HOUR	✓	1336	100.000
3 - A283 West		ONE HOUR	✓	1216	100.000
4 - A24 North		ONE HOUR	✓	1970	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	162	529	117
	2 - A24 South	169	2	229	936
	3 - A283 West	514	340	2	360
	4 - A24 North	63	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	15	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	21.25	5.0	C	741	1112
2 - A24 South	0.63	4.23	1.7	A	1226	1839
3 - A283 West	0.94	32.98	11.5	D	1116	1674
4 - A24 North	1.17	267.19	167.7	F	1808	2712

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1684	1319	0.461	605	559	0.0	0.8	5.020	A
2 - A24 South	1006	251	739	2532	0.397	1003	1550	0.0	0.7	2.350	A
3 - A283 West	915	229	971	1665	0.550	911	771	0.0	1.2	4.745	A
4 - A24 North	1483	371	769	2077	0.714	1473	1112	0.0	2.4	5.875	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2003	1143	0.635	723	668	0.8	1.7	8.496	A
2 - A24 South	1201	300	881	2429	0.494	1200	1845	0.7	1.0	2.926	A
3 - A283 West	1093	273	1161	1564	0.699	1089	920	1.2	2.3	7.515	A
4 - A24 North	1771	443	920	1980	0.894	1751	1330	2.4	7.3	14.627	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2160	1057	0.841	878	798	1.7	4.7	18.889	C
2 - A24 South	1471	368	1022	2327	0.632	1468	2016	1.0	1.7	4.175	A
3 - A283 West	1339	335	1409	1432	0.935	1308	1081	2.3	9.9	24.693	C
4 - A24 North	2169	542	1109	1859	1.167	1849	1609	7.3	87.3	99.941	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2165	1055	0.843	888	808	4.7	5.0	21.248	C
2 - A24 South	1471	368	1030	2321	0.634	1471	2023	1.7	1.7	4.232	A
3 - A283 West	1339	335	1413	1430	0.936	1332	1088	9.9	11.5	32.980	D
4 - A24 North	2169	542	1126	1848	1.174	1847	1619	87.3	167.7	250.529	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2207	1031	0.704	736	692	5.0	2.5	12.599	B
2 - A24 South	1201	300	926	2396	0.501	1204	2017	1.7	1.0	3.027	A
3 - A283 West	1093	273	1173	1557	0.702	1129	957	11.5	2.4	9.107	A
4 - A24 North	1771	443	949	1962	0.903	1950	1354	167.7	122.9	267.194	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	2161	1056	0.576	613	579	2.5	1.4	8.193	A
2 - A24 South	1006	251	829	2467	0.408	1007	1944	1.0	0.7	2.468	A
3 - A283 West	915	229	993	1652	0.554	920	843	2.4	1.3	4.949	A
4 - A24 North	1483	371	777	2072	0.716	1964	1136	122.9	2.8	95.497	F

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	43.34	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - A283 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	834	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1072	100.000
4 - A24 North		ONE HOUR	✓	1513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	126	492	216
	2 - A24 South	148	0	214	1217
	3 - A283 West	532	221	2	317
	4 - A24 North	97	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	11
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.81	16.46	4.0	C	765	1148
2 - A24 South	0.87	13.35	6.2	B	1449	2173
3 - A283 West	1.08	141.41	51.6	F	984	1476
4 - A24 North	0.91	21.05	9.2	C	1388	2083

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	628	157	1228	1436	0.437	625	582	0.0	0.8	4.422	A
2 - A24 South	1189	297	868	2302	0.516	1185	984	0.0	1.1	3.210	A
3 - A283 West	807	202	1268	1409	0.573	802	785	0.0	1.3	5.879	A
4 - A24 North	1139	285	676	1985	0.574	1134	1394	0.0	1.3	4.204	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	750	187	1468	1305	0.575	748	695	0.8	1.3	6.432	A
2 - A24 South	1419	355	1039	2176	0.652	1416	1177	1.1	1.8	4.716	A
3 - A283 West	964	241	1517	1278	0.754	957	938	1.3	2.9	11.020	B
4 - A24 North	1360	340	807	1903	0.715	1356	1667	1.3	2.4	6.527	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	918	230	1761	1145	0.802	909	801	1.3	3.7	14.672	B
2 - A24 South	1739	435	1261	2013	0.864	1723	1409	1.8	5.8	11.834	B
3 - A283 West	1180	295	1844	1104	1.069	1076	1140	2.9	29.1	65.998	F
4 - A24 North	1666	416	919	1832	0.909	1643	2001	2.4	8.2	17.212	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	918	230	1782	1133	0.810	917	810	3.7	4.0	16.460	C
2 - A24 South	1739	435	1274	2003	0.868	1737	1426	5.8	6.2	13.350	B
3 - A283 West	1180	295	1860	1096	1.077	1090	1151	29.1	51.6	141.413	F
4 - A24 North	1666	416	931	1825	0.913	1662	2019	8.2	9.2	21.052	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	750	187	1536	1269	0.591	760	797	4.0	1.5	7.215	A
2 - A24 South	1419	355	1058	2162	0.657	1436	1238	6.2	1.9	5.074	A
3 - A283 West	964	241	1539	1266	0.761	1156	955	51.6	3.6	62.673	F
4 - A24 North	1360	340	949	1815	0.750	1385	1746	9.2	3.1	8.810	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	628	157	1242	1428	0.440	631	590	1.5	0.8	4.531	A
2 - A24 South	1189	297	877	2296	0.518	1192	996	1.9	1.1	3.274	A
3 - A283 West	807	202	1277	1404	0.575	816	792	3.6	1.4	6.210	A
4 - A24 North	1139	285	686	1978	0.576	1146	1407	3.1	1.4	4.360	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	107.77	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	803	100.000
2 - A24 South		ONE HOUR	✓	1335	100.000
3 - A283 West		ONE HOUR	✓	1213	100.000
4 - A24 North		ONE HOUR	✓	1966	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	163	526	114
	2 - A24 South	168	2	229	936
	3 - A283 West	511	340	2	360
	4 - A24 North	59	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	16	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	21.01	4.9	C	737	1105
2 - A24 South	0.63	4.21	1.7	A	1225	1838
3 - A283 West	0.93	31.76	11.0	D	1113	1670
4 - A24 North	1.17	259.30	164.3	F	1804	2706

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	605	151	1684	1319	0.458	601	553	0.0	0.8	4.995	A
2 - A24 South	1005	251	734	2536	0.396	1002	1551	0.0	0.7	2.344	A
3 - A283 West	913	228	968	1666	0.548	908	768	0.0	1.2	4.723	A
4 - A24 North	1480	370	766	2079	0.712	1470	1110	0.0	2.4	5.830	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	722	180	2004	1143	0.632	719	661	0.8	1.7	8.419	A
2 - A24 South	1200	300	876	2433	0.493	1199	1847	0.7	1.0	2.915	A
3 - A283 West	1090	273	1157	1565	0.697	1086	917	1.2	2.2	7.447	A
4 - A24 North	1767	442	917	1982	0.892	1748	1327	2.4	7.2	14.348	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	884	221	2166	1054	0.839	872	790	1.7	4.6	18.701	C
2 - A24 South	1470	367	1017	2331	0.631	1467	2022	1.0	1.7	4.151	A
3 - A283 West	1336	334	1405	1434	0.931	1306	1078	2.2	9.6	24.075	C
4 - A24 North	2165	541	1105	1861	1.163	1851	1606	7.2	85.6	98.079	F

17:30 - 17:45

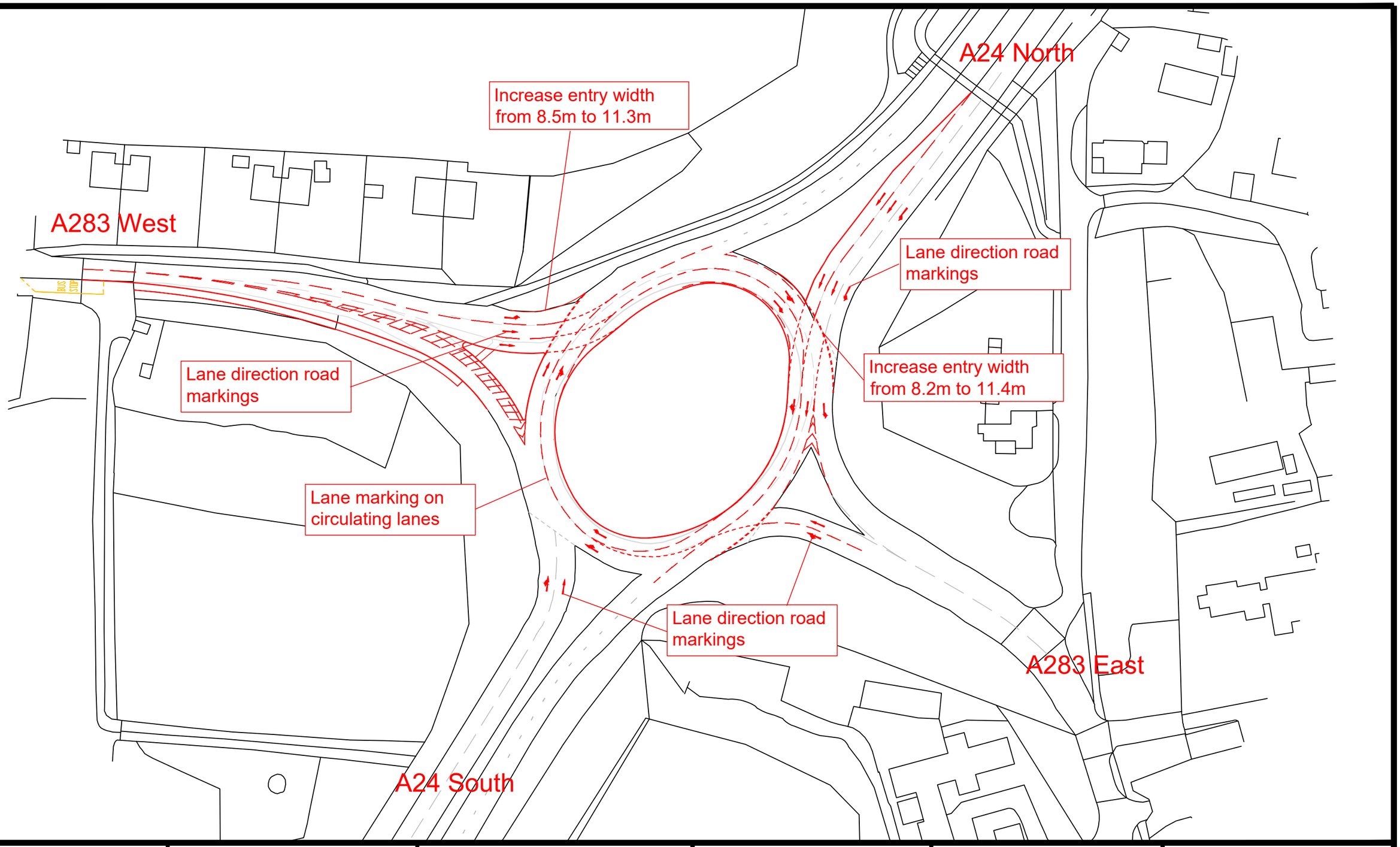
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	884	221	2171	1051	0.841	883	801	4.6	4.9	21.010	C
2 - A24 South	1470	367	1025	2325	0.632	1470	2029	1.7	1.7	4.208	A
3 - A283 West	1336	334	1409	1432	0.932	1330	1086	9.6	11.0	31.757	D
4 - A24 North	2165	541	1122	1851	1.170	1850	1616	85.6	164.3	245.403	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	722	180	2213	1028	0.702	732	684	4.9	2.5	12.534	B
2 - A24 South	1200	300	922	2400	0.500	1203	2023	1.7	1.0	3.017	A
3 - A283 West	1090	273	1170	1559	0.700	1125	955	11.0	2.4	8.937	A
4 - A24 North	1767	442	944	1965	0.900	1953	1351	164.3	117.9	259.305	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	605	151	2143	1066	0.567	609	572	2.5	1.3	7.952	A
2 - A24 South	1005	251	822	2472	0.407	1006	1930	1.0	0.7	2.457	A
3 - A283 West	913	228	989	1654	0.552	918	839	2.4	1.2	4.918	A
4 - A24 North	1480	370	774	2074	0.714	1941	1134	117.9	2.7	86.572	F



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H I G H W A Y S

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2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS WASHINGTON ROUNDABOUT

Date	Drawn		
12/11/2021	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
1/1000@A3	APPENDIX 1.3		

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 1 - C - Washington Rdbt - Proposed Jct - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\1 - Washington Roundabout
Report generation date: 11/11/2021 10:40:04

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A283 East	4.9	19.47	0.84	C	13.23	B	4 % [1 - A283 East]	22.8	89.42	1.01	F	20.43	C	-5 % [1 - A283 East]
2 - A24 South	6.9	14.86	0.88	B				1.8	4.45	0.65	A			
3 - A283 West	5.7	18.15	0.86	C				3.2	8.75	0.77	A			
4 - A24 North	2.2	4.69	0.69	A				6.0	10.18	0.86	B			
Scenario 2 Total														
1 - A283 East	4.6	18.43	0.83	C	12.82	B	5 % [1 - A283 East]	23.8	92.36	1.02	F	20.77	C	-5 % [1 - A283 East]
2 - A24 South	6.7	14.50	0.88	B				1.8	4.44	0.64	A			
3 - A283 West	5.6	17.69	0.86	C				3.1	8.62	0.76	A			
4 - A24 North	2.1	4.65	0.68	A				5.7	9.76	0.86	A			
Scenario 3 Total														
1 - A283 East	4.5	18.08	0.83	C	12.62	B	5 % [1 - A283 East]	21.7	86.04	1.01	F	19.72	C	-5 % [1 - A283 East]
2 - A24 South	6.6	14.28	0.88	B				1.8	4.43	0.64	A			
3 - A283 West	5.4	17.38	0.85	C				3.1	8.60	0.76	A			
4 - A24 North	2.1	4.63	0.68	A				5.7	9.79	0.86	A			
Scenario 4 Total														
1 - A283 East	4.3	17.41	0.82	C	12.37	B	5 % [3 - A283 West]	20.3	81.83	1.00	F	18.94	C	-4 % [1 - A283 East]
2 - A24 South	6.5	14.06	0.87	B				1.8	4.41	0.64	A			
3 - A283 West	5.4	17.12	0.85	C				3.1	8.49	0.76	A			
4 - A24 North	2.1	4.63	0.68	A				5.6	9.60	0.85	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 1.4
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS (WITH PROPOSED JUNCTION IMPROVEMENTS)

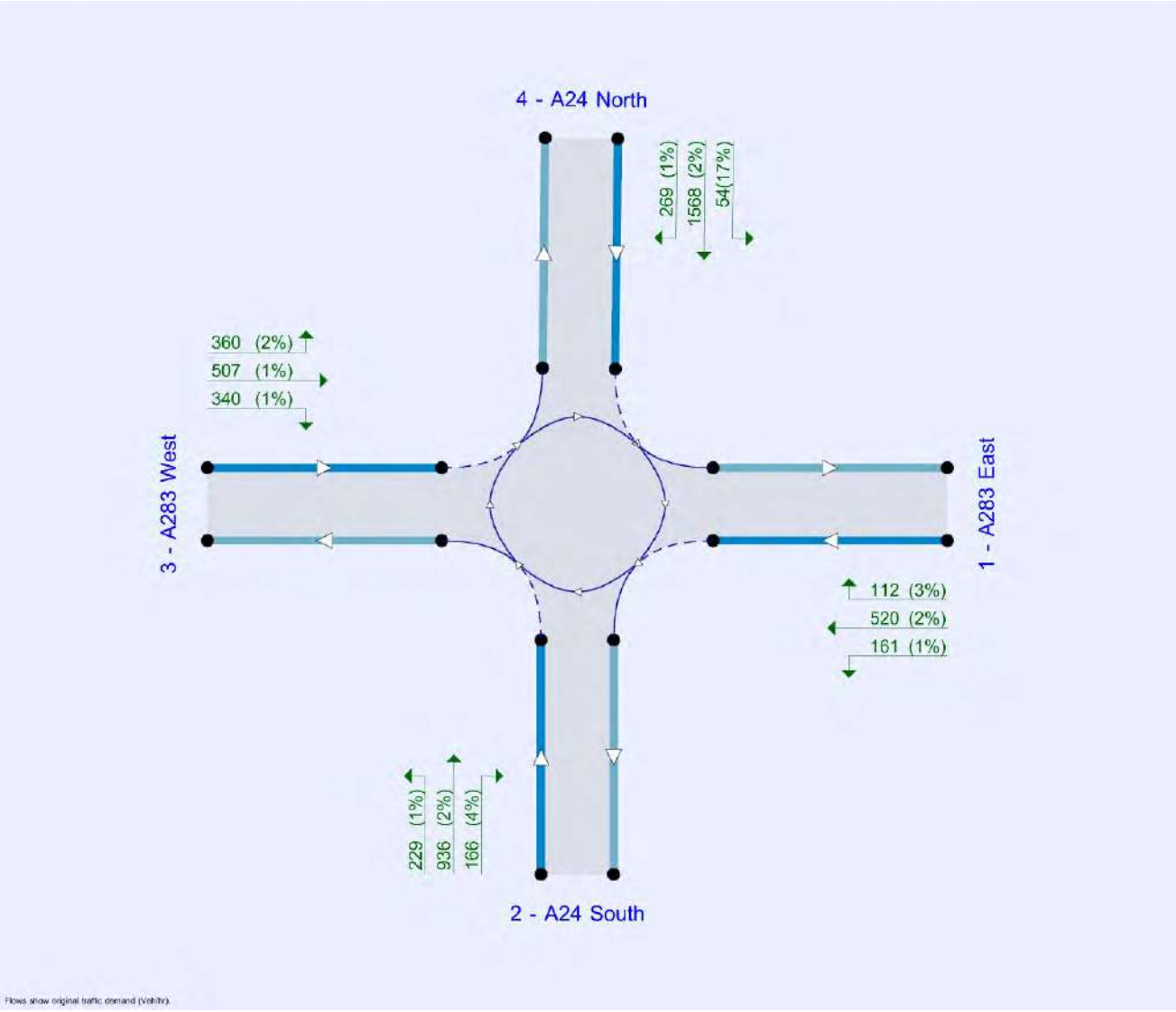
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	13.23	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	4	1 - A283 East

Arms

Arms

Arm	Name	Description
1	A283 East	
2	A24 South	
3	A283 West	
4	A24 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 East	6.20	7.70	9.0	22.8	91.4	17.0	
2 - A24 South	8.20	10.50	9.8	65.8	75.1	17.0	
3 - A283 West	6.00	11.30	23.0	28.0	91.4	47.0	
4 - A24 North	7.50	11.40	53.0	45.9	75.1	15.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 East	0.549	2286
2 - A24 South	0.717	3111
3 - A283 West	0.575	2619
4 - A24 North	0.774	3486

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	857	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1077	100.000
4 - A24 North		ONE HOUR	✓	1518	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	129	499	229
	2 - A24 South	148	0	214	1217
	3 - A283 West	537	221	2	317
	4 - A24 North	102	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	22	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	19.47	4.9	C	786	1180
2 - A24 South	0.88	14.86	6.9	B	1449	2173
3 - A283 West	0.86	18.15	5.7	C	988	1482
4 - A24 North	0.69	4.69	2.2	A	1393	2089

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	645	161	1230	1437	0.449	642	590	0.0	0.8	4.508	A
2 - A24 South	1189	297	884	2277	0.522	1184	988	0.0	1.1	3.282	A
3 - A283 West	811	203	1278	1725	0.470	807	790	0.0	0.9	3.910	A
4 - A24 North	1143	286	681	2676	0.427	1140	1405	0.0	0.7	2.339	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	770	193	1471	1306	0.590	768	706	0.8	1.4	6.662	A
2 - A24 South	1419	355	1057	2150	0.660	1416	1182	1.1	1.9	4.884	A
3 - A283 West	968	242	1528	1579	0.613	965	945	0.9	1.6	5.840	A
4 - A24 North	1365	341	814	2577	0.530	1363	1680	0.7	1.1	2.962	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	944	236	1798	1128	0.837	931	857	1.4	4.6	17.289	C
2 - A24 South	1739	435	1286	1982	0.877	1721	1443	1.9	6.4	12.965	B
3 - A283 West	1186	296	1857	1388	0.854	1171	1150	1.6	5.2	15.637	C
4 - A24 North	1671	418	988	2447	0.683	1667	2040	1.1	2.1	4.593	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	944	236	1804	1124	0.839	942	865	4.6	4.9	19.474	C
2 - A24 South	1739	435	1297	1974	0.881	1737	1449	6.4	6.9	14.864	B
3 - A283 West	1186	296	1874	1378	0.860	1184	1159	5.2	5.7	18.153	C
4 - A24 North	1671	418	998	2439	0.685	1671	2060	2.1	2.2	4.685	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	770	193	1481	1301	0.592	784	718	4.9	1.5	7.142	A
2 - A24 South	1419	355	1073	2139	0.664	1439	1192	6.9	2.0	5.282	A
3 - A283 West	968	242	1553	1565	0.619	984	959	5.7	1.7	6.365	A
4 - A24 North	1365	341	830	2565	0.532	1369	1707	2.2	1.1	3.017	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	645	161	1236	1434	0.450	648	594	1.5	0.8	4.591	A
2 - A24 South	1189	297	890	2272	0.523	1192	994	2.0	1.1	3.346	A
3 - A283 West	811	203	1287	1719	0.472	814	796	1.7	0.9	3.988	A
4 - A24 North	1143	286	686	2672	0.428	1144	1415	1.1	0.8	2.359	A

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	20.43	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	812	100.000
2 - A24 South		ONE HOUR	✓	1338	100.000
3 - A283 West		ONE HOUR	✓	1222	100.000
4 - A24 North		ONE HOUR	✓	1977	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	164	531	117
	2 - A24 South	171	2	229	936
	3 - A283 West	520	340	2	360
	4 - A24 North	70	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	13	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	1.01	89.42	22.8	F	745	1118
2 - A24 South	0.65	4.45	1.8	A	1228	1842
3 - A283 West	0.77	8.75	3.2	A	1121	1682
4 - A24 North	0.86	10.18	6.0	B	1814	2721

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	611	153	1689	1316	0.465	608	571	0.0	0.9	5.061	A
2 - A24 South	1007	252	741	2515	0.401	1005	1556	0.0	0.7	2.380	A
3 - A283 West	920	230	973	2018	0.456	917	773	0.0	0.8	3.260	A
4 - A24 North	1488	372	777	2805	0.531	1484	1113	0.0	1.1	2.716	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	730	182	2020	1134	0.644	726	683	0.9	1.8	8.747	A
2 - A24 South	1203	301	886	2411	0.499	1202	1861	0.7	1.0	2.975	A
3 - A283 West	1099	275	1163	1907	0.576	1097	924	0.8	1.3	4.433	A
4 - A24 North	1777	444	929	2688	0.661	1774	1331	1.1	1.9	3.922	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	894	224	2462	892	1.003	841	834	1.8	14.9	49.254	E
2 - A24 South	1473	368	1044	2296	0.642	1470	2259	1.0	1.8	4.340	A
3 - A283 West	1345	336	1416	1759	0.765	1338	1098	1.3	3.1	8.413	A
4 - A24 North	2177	544	1134	2531	0.860	2162	1620	1.9	5.7	9.385	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	894	224	2477	883	1.012	862	838	14.9	22.8	89.421	F
2 - A24 South	1473	368	1064	2282	0.645	1473	2276	1.8	1.8	4.445	A
3 - A283 West	1345	336	1422	1756	0.766	1345	1114	3.1	3.2	8.753	A
4 - A24 North	2177	544	1139	2527	0.861	2176	1628	5.7	6.0	10.177	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	730	182	2041	1123	0.650	813	688	22.8	1.9	15.009	C
2 - A24 South	1203	301	958	2358	0.510	1206	1896	1.8	1.0	3.133	A
3 - A283 West	1099	275	1180	1897	0.579	1106	984	3.2	1.4	4.591	A
4 - A24 North	1777	444	936	2683	0.662	1793	1350	6.0	2.0	4.116	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	611	153	1699	1311	0.466	615	574	1.9	0.9	5.209	A
2 - A24 South	1007	252	748	2509	0.401	1009	1566	1.0	0.7	2.403	A
3 - A283 West	920	230	978	2015	0.457	922	780	1.4	0.8	3.299	A
4 - A24 North	1488	372	781	2802	0.531	1492	1119	2.0	1.1	2.755	A

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	12.82	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	846	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1075	100.000
4 - A24 North		ONE HOUR	✓	1513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	127	496	223
	2 - A24 South	148	0	214	1217
	3 - A283 West	535	221	2	317
	4 - A24 North	97	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.83	18.43	4.6	C	776	1164
2 - A24 South	0.88	14.50	6.7	B	1449	2173
3 - A283 West	0.86	17.69	5.6	C	986	1480
4 - A24 North	0.68	4.65	2.1	A	1388	2083

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	637	159	1230	1436	0.444	634	585	0.0	0.8	4.471	A
2 - A24 South	1189	297	877	2281	0.521	1184	987	0.0	1.1	3.271	A
3 - A283 West	809	202	1274	1727	0.469	806	788	0.0	0.9	3.894	A
4 - A24 North	1139	285	679	2677	0.426	1136	1400	0.0	0.7	2.333	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	761	190	1471	1305	0.583	758	699	0.8	1.4	6.562	A
2 - A24 South	1419	355	1049	2155	0.659	1416	1180	1.1	1.9	4.850	A
3 - A283 West	966	242	1523	1582	0.611	964	943	0.9	1.5	5.797	A
4 - A24 North	1360	340	812	2577	0.528	1359	1674	0.7	1.1	2.950	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	931	233	1798	1127	0.827	920	850	1.4	4.3	16.548	C
2 - A24 South	1739	435	1277	1988	0.874	1721	1441	1.9	6.2	12.720	B
3 - A283 West	1184	296	1851	1391	0.851	1169	1147	1.5	5.1	15.336	C
4 - A24 North	1666	416	986	2448	0.681	1662	2035	1.1	2.1	4.558	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	931	233	1804	1123	0.829	930	858	4.3	4.6	18.434	C
2 - A24 South	1739	435	1287	1981	0.878	1737	1447	6.2	6.7	14.496	B
3 - A283 West	1184	296	1868	1382	0.857	1182	1156	5.1	5.6	17.690	C
4 - A24 North	1666	416	996	2440	0.683	1666	2053	2.1	2.1	4.647	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	761	190	1480	1300	0.585	773	711	4.6	1.4	6.994	A
2 - A24 South	1419	355	1064	2145	0.662	1438	1190	6.7	2.0	5.227	A
3 - A283 West	966	242	1546	1568	0.616	982	956	5.6	1.6	6.298	A
4 - A24 North	1360	340	827	2566	0.530	1364	1701	2.1	1.1	3.004	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	637	159	1236	1433	0.444	639	589	1.4	0.8	4.550	A
2 - A24 South	1189	297	883	2277	0.522	1192	992	2.0	1.1	3.332	A
3 - A283 West	809	202	1282	1722	0.470	812	794	1.6	0.9	3.970	A
4 - A24 North	1139	285	685	2673	0.426	1141	1410	1.1	0.7	2.353	A

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	20.77	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	815	100.000
2 - A24 South		ONE HOUR	✓	1336	100.000
3 - A283 West		ONE HOUR	✓	1217	100.000
4 - A24 North		ONE HOUR	✓	1968	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	164	533	118
	2 - A24 South	169	2	229	936
	3 - A283 West	515	340	2	360
	4 - A24 North	61	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	15	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	1.02	92.36	23.8	F	748	1122
2 - A24 South	0.64	4.44	1.8	A	1226	1839
3 - A283 West	0.76	8.62	3.1	A	1117	1675
4 - A24 North	0.86	9.76	5.7	A	1806	2709

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	614	153	1689	1316	0.466	610	559	0.0	0.9	5.077	A
2 - A24 South	1006	251	743	2513	0.400	1003	1556	0.0	0.7	2.380	A
3 - A283 West	916	229	972	2018	0.454	913	774	0.0	0.8	3.248	A
4 - A24 North	1482	370	771	2809	0.528	1477	1114	0.0	1.1	2.695	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	733	183	2020	1134	0.646	729	669	0.9	1.8	8.802	A
2 - A24 South	1201	300	888	2409	0.499	1200	1861	0.7	1.0	2.975	A
3 - A283 West	1094	274	1162	1907	0.574	1092	926	0.8	1.3	4.406	A
4 - A24 North	1769	442	923	2693	0.657	1766	1332	1.1	1.9	3.872	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	897	224	2463	891	1.007	843	816	1.8	15.4	50.370	F
2 - A24 South	1471	368	1046	2295	0.641	1468	2259	1.0	1.8	4.336	A
3 - A283 West	1340	335	1415	1760	0.761	1333	1099	1.3	3.1	8.299	A
4 - A24 North	2167	542	1127	2536	0.854	2152	1621	1.9	5.5	9.056	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	897	224	2477	883	1.016	864	820	15.4	23.8	92.362	F
2 - A24 South	1471	368	1065	2281	0.645	1471	2276	1.8	1.8	4.441	A
3 - A283 West	1340	335	1421	1756	0.763	1340	1115	3.1	3.1	8.622	A
4 - A24 North	2167	542	1132	2533	0.856	2166	1629	5.5	5.7	9.761	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	733	183	2040	1123	0.652	820	674	23.8	1.9	15.560	C
2 - A24 South	1201	300	964	2354	0.510	1204	1896	1.8	1.0	3.139	A
3 - A283 West	1094	274	1180	1897	0.577	1101	988	3.1	1.4	4.562	A
4 - A24 North	1769	442	930	2687	0.658	1784	1351	5.7	2.0	4.051	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	614	153	1698	1311	0.468	618	562	1.9	0.9	5.223	A
2 - A24 South	1006	251	751	2508	0.401	1007	1566	1.0	0.7	2.401	A
3 - A283 West	916	229	977	2015	0.455	918	781	1.4	0.8	3.289	A
4 - A24 North	1482	370	776	2805	0.528	1485	1120	2.0	1.1	2.732	A

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	12.62	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	842	100.000
2 - A24 South		ONE HOUR	✓	1578	100.000
3 - A283 West		ONE HOUR	✓	1073	100.000
4 - A24 North		ONE HOUR	✓	1512	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	127	494	221
	2 - A24 South	147	0	214	1217
	3 - A283 West	533	221	2	317
	4 - A24 North	96	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	11
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	24	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.83	18.08	4.5	C	773	1159
2 - A24 South	0.88	14.28	6.6	B	1448	2172
3 - A283 West	0.85	17.38	5.4	C	985	1477
4 - A24 North	0.68	4.63	2.1	A	1387	2081

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	634	158	1230	1435	0.442	631	582	0.0	0.8	4.457	A
2 - A24 South	1188	297	874	2283	0.520	1184	987	0.0	1.1	3.263	A
3 - A283 West	808	202	1271	1728	0.468	804	787	0.0	0.9	3.883	A
4 - A24 North	1138	285	677	2678	0.425	1135	1399	0.0	0.7	2.330	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	757	189	1471	1304	0.580	755	696	0.8	1.4	6.525	A
2 - A24 South	1419	355	1046	2158	0.658	1415	1180	1.1	1.9	4.829	A
3 - A283 West	965	241	1520	1583	0.609	962	941	0.9	1.5	5.771	A
4 - A24 North	1359	340	810	2579	0.527	1358	1673	0.7	1.1	2.943	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	927	232	1798	1126	0.823	916	846	1.4	4.2	16.294	C
2 - A24 South	1737	434	1273	1991	0.873	1720	1441	1.9	6.2	12.574	B
3 - A283 West	1181	295	1848	1393	0.848	1167	1145	1.5	5.0	15.134	C
4 - A24 North	1665	416	983	2450	0.680	1661	2033	1.1	2.1	4.540	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	927	232	1804	1123	0.826	926	853	4.2	4.5	18.081	C
2 - A24 South	1737	434	1283	1984	0.876	1736	1447	6.2	6.6	14.280	B
3 - A283 West	1181	295	1864	1383	0.854	1180	1154	5.0	5.4	17.383	C
4 - A24 North	1665	416	993	2442	0.682	1665	2051	2.1	2.1	4.628	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	757	189	1480	1299	0.583	769	707	4.5	1.4	6.942	A
2 - A24 South	1419	355	1060	2147	0.661	1437	1190	6.6	2.0	5.195	A
3 - A283 West	965	241	1543	1570	0.614	980	954	5.4	1.6	6.254	A
4 - A24 North	1359	340	824	2568	0.529	1363	1699	2.1	1.1	2.999	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	634	158	1236	1432	0.443	636	586	1.4	0.8	4.536	A
2 - A24 South	1188	297	880	2279	0.521	1192	992	2.0	1.1	3.321	A
3 - A283 West	808	202	1280	1723	0.469	811	792	1.6	0.9	3.959	A
4 - A24 North	1138	285	682	2674	0.426	1140	1408	1.1	0.7	2.350	A

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	19.72	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	808	100.000
2 - A24 South		ONE HOUR	✓	1336	100.000
3 - A283 West		ONE HOUR	✓	1216	100.000
4 - A24 North		ONE HOUR	✓	1970	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	162	529	117
	2 - A24 South	169	2	229	936
	3 - A283 West	514	340	2	360
	4 - A24 North	63	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	15	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	1.01	86.04	21.7	F	741	1112
2 - A24 South	0.64	4.43	1.8	A	1226	1839
3 - A283 West	0.76	8.60	3.1	A	1116	1674
4 - A24 North	0.86	9.79	5.7	A	1808	2712

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1689	1316	0.462	605	560	0.0	0.9	5.040	A
2 - A24 South	1006	251	740	2516	0.400	1003	1555	0.0	0.7	2.376	A
3 - A283 West	915	229	971	2019	0.454	912	771	0.0	0.8	3.244	A
4 - A24 North	1483	371	771	2809	0.528	1479	1113	0.0	1.1	2.697	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2020	1134	0.640	723	670	0.9	1.7	8.677	A
2 - A24 South	1201	300	884	2412	0.498	1200	1859	0.7	1.0	2.968	A
3 - A283 West	1093	273	1162	1908	0.573	1091	922	0.8	1.3	4.398	A
4 - A24 North	1771	443	922	2693	0.658	1768	1331	1.1	1.9	3.876	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2462	891	0.998	839	818	1.7	14.4	48.087	E
2 - A24 South	1471	368	1044	2297	0.640	1468	2258	1.0	1.8	4.327	A
3 - A283 West	1339	335	1414	1760	0.761	1332	1097	1.3	3.1	8.275	A
4 - A24 North	2169	542	1125	2537	0.855	2155	1621	1.9	5.5	9.083	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2477	883	1.008	861	821	14.4	21.7	86.036	F
2 - A24 South	1471	368	1063	2283	0.644	1471	2275	1.8	1.8	4.433	A
3 - A283 West	1339	335	1420	1757	0.762	1339	1114	3.1	3.1	8.596	A
4 - A24 North	2169	542	1131	2533	0.856	2168	1628	5.5	5.7	9.794	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2040	1123	0.647	805	674	21.7	1.9	14.328	B
2 - A24 South	1201	300	953	2362	0.508	1204	1893	1.8	1.0	3.118	A
3 - A283 West	1093	273	1178	1898	0.576	1100	979	3.1	1.4	4.550	A
4 - A24 North	1771	443	929	2688	0.659	1786	1349	5.7	2.0	4.057	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1698	1311	0.464	612	563	1.9	0.9	5.183	A
2 - A24 South	1006	251	747	2510	0.401	1007	1564	1.0	0.7	2.399	A
3 - A283 West	915	229	976	2016	0.454	918	778	1.4	0.8	3.286	A
4 - A24 North	1483	371	775	2806	0.529	1486	1119	2.0	1.1	2.734	A

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	12.37	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	3 - A283 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	834	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1072	100.000
4 - A24 North		ONE HOUR	✓	1513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	126	492	216
	2 - A24 South	148	0	214	1217
	3 - A283 West	532	221	2	317
	4 - A24 North	97	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	11
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.82	17.41	4.3	C	765	1148
2 - A24 South	0.87	14.06	6.5	B	1449	2173
3 - A283 West	0.85	17.12	5.4	C	984	1476
4 - A24 North	0.68	4.63	2.1	A	1388	2083

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	628	157	1230	1434	0.438	625	583	0.0	0.8	4.430	A
2 - A24 South	1189	297	869	2287	0.520	1184	986	0.0	1.1	3.254	A
3 - A283 West	807	202	1268	1729	0.467	804	785	0.0	0.9	3.875	A
4 - A24 North	1139	285	677	2678	0.425	1136	1395	0.0	0.7	2.331	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	750	187	1471	1303	0.575	748	697	0.8	1.3	6.454	A
2 - A24 South	1419	355	1040	2162	0.657	1416	1179	1.1	1.9	4.807	A
3 - A283 West	964	241	1517	1585	0.608	961	939	0.9	1.5	5.745	A
4 - A24 North	1360	340	810	2579	0.527	1359	1668	0.7	1.1	2.945	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	918	230	1798	1125	0.816	907	847	1.3	4.0	15.800	C
2 - A24 South	1739	435	1266	1996	0.871	1722	1440	1.9	6.1	12.429	B
3 - A283 West	1180	295	1844	1395	0.846	1167	1143	1.5	5.0	14.961	B
4 - A24 North	1666	416	983	2450	0.680	1662	2028	1.1	2.1	4.547	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	918	230	1804	1122	0.818	917	855	4.0	4.3	17.413	C
2 - A24 South	1739	435	1275	1989	0.874	1737	1446	6.1	6.5	14.062	B
3 - A283 West	1180	295	1860	1386	0.852	1179	1152	5.0	5.4	17.123	C
4 - A24 North	1666	416	993	2442	0.682	1666	2046	2.1	2.1	4.634	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	750	187	1480	1298	0.577	761	708	4.3	1.4	6.840	A
2 - A24 South	1419	355	1053	2152	0.660	1438	1189	6.5	2.0	5.162	A
3 - A283 West	964	241	1539	1572	0.613	979	951	5.4	1.6	6.215	A
4 - A24 North	1360	340	824	2568	0.530	1364	1694	2.1	1.1	3.000	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	628	157	1236	1431	0.439	630	587	1.4	0.8	4.508	A
2 - A24 South	1189	297	875	2282	0.521	1192	991	2.0	1.1	3.311	A
3 - A283 West	807	202	1277	1724	0.468	810	790	1.6	0.9	3.949	A
4 - A24 North	1139	285	682	2674	0.426	1141	1405	1.1	0.7	2.349	A

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	18.94	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	803	100.000
2 - A24 South		ONE HOUR	✓	1335	100.000
3 - A283 West		ONE HOUR	✓	1213	100.000
4 - A24 North		ONE HOUR	✓	1966	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	163	526	114
	2 - A24 South	168	2	229	936
	3 - A283 West	511	340	2	360
	4 - A24 North	59	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	16	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	1.00	81.83	20.3	F	737	1105
2 - A24 South	0.64	4.41	1.8	A	1225	1838
3 - A283 West	0.76	8.49	3.1	A	1113	1670
4 - A24 North	0.85	9.60	5.6	A	1804	2706

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	605	151	1689	1316	0.460	601	554	0.0	0.8	5.017	A
2 - A24 South	1005	251	735	2519	0.399	1002	1556	0.0	0.7	2.370	A
3 - A283 West	913	228	968	2020	0.452	910	769	0.0	0.8	3.233	A
4 - A24 North	1480	370	768	2811	0.526	1476	1111	0.0	1.1	2.686	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	722	180	2020	1134	0.637	718	662	0.8	1.7	8.590	A
2 - A24 South	1200	300	879	2415	0.497	1199	1860	0.7	1.0	2.957	A
3 - A283 West	1090	273	1158	1910	0.571	1088	919	0.8	1.3	4.373	A
4 - A24 North	1767	442	918	2696	0.656	1764	1328	1.1	1.9	3.850	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	884	221	2463	891	0.992	836	809	1.7	13.7	46.582	E
2 - A24 South	1470	367	1039	2300	0.639	1467	2260	1.0	1.7	4.307	A
3 - A283 West	1336	334	1410	1762	0.758	1329	1096	1.3	3.0	8.178	A
4 - A24 North	2165	541	1121	2540	0.852	2151	1618	1.9	5.4	8.929	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	884	221	2477	883	1.001	858	812	13.7	20.3	81.827	F
2 - A24 South	1470	367	1059	2286	0.643	1470	2276	1.7	1.8	4.411	A
3 - A283 West	1336	334	1416	1759	0.759	1335	1112	3.0	3.1	8.485	A
4 - A24 North	2165	541	1126	2537	0.853	2164	1626	5.4	5.6	9.600	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	722	180	2040	1123	0.643	796	667	20.3	1.9	13.583	B
2 - A24 South	1200	300	943	2369	0.507	1203	1892	1.8	1.0	3.097	A
3 - A283 West	1090	273	1173	1901	0.574	1097	973	3.1	1.4	4.520	A
4 - A24 North	1767	442	925	2691	0.657	1782	1346	5.6	1.9	4.025	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	605	151	1698	1311	0.461	609	557	1.9	0.9	5.157	A
2 - A24 South	1005	251	742	2514	0.400	1007	1565	1.0	0.7	2.392	A
3 - A283 West	913	228	973	2018	0.453	915	776	1.4	0.8	3.274	A
4 - A24 North	1480	370	772	2808	0.527	1483	1117	1.9	1.1	2.723	A

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham Washington Roundabout**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
Washington Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-03B**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	3000.00	3,000.00
1.02	REMOVE CONCRETE KERBS	444.00	m	15.00	6,660.00
1.03	REMOVE EDGING KERB	92.00	m	3.00	276.00
1.04	REMOVE LIGHTING COLUMNS	4.00	ITEM	750.00	3,000.00
1.05	REMOVE GULLIES	3.00	No	450.00	1,350.00
1.06	REMOVE TRAFFIC SIGNS	10.00	No	350.00	3,500.00
1.07	REMOVE BOLLARDS	0.00	No	250.00	0.00
					17,786.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	605.00	Cum	22.00	13,310.00
2.02	EXCAVATE HARD AND DISPOSE	24.00	Cum	55.00	1,320.00
2.03	DISPOSE U/S	629.00	Cum	50.00	31,450.00
2.04	FORMATION AND SUB-FORMATION	3000.00	Sqm	1.20	3,600.00
2.05	PLANE CARRIAGEWAY (40mm)	1398.00	Sqm	3.50	4,893.00
2.06	PLANE FOOTWAY (20mm)	0.00	Sqm	2.50	0.00
2.07	IMPORT CAPPING AND COMPACT	232.00	Cum	18.00	4,176.00
					58,749.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	175.00	Cum	25.00	4,375.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	775.00	Sqm	22.00	17,050.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	775.00	Sqm	24.00	18,600.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	4915.00	Sqm	18.00	88,470.00
3.05	CONCRETE KERBING	406.00	m	20.00	8,120.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	99.00	m	12.00	1,188.00
3.08	SUB BASE - FOOTWAY(150mm)	30.00	Cum	18.00	540.00
3.09	FOOTWAY SURFACE COURSE (20mm)	196.00	Sqm	8.00	1,568.00
3.10	FOOTWAY BINDER COURSE (50mm)	196.00	Sqm	11.00	2,156.00
3.11	CONCRETE PAVING (60mm)	15.00	Sqm	40.00	600.00
3.12	TACTILE PAVING	20.00	Sqm	30.00	600.00
					143,267.00

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	5.00	No	600.00	3,000.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00

APPENDIX 1.5
BUDGET COST ESTIMATE
FOR OFF-SITE HIGHWAY

4.03	GULLY CONNECTIONS	5.00	No	500.00	2,500.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					5,500.00

5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	5000.00	5000.00
5.02	BOLLARDS	0.00	No	600.00	0.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	10.00	No	750.00	7500.00
					0.00
					12,500.00

7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	7500.00	7,500.00
7.02	STREET LIGHTING COLUMN	4.00	No.	1800.00	7,200.00
7.03	LIGHTING DUCTING	60.00	m	20.00	1,200.00
7.04	TOPSOIL & SEED	395.00	Sqm	12.50	4,937.50
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	2000.00	2,000.00
					22,837.50

	SUMMARY	
	Preliminaries 15%	£35,670.30
1.0	Site Clearance	£17,786.00
2.0	Earthworks	£58,749.00
3.0	Pavement	£143,267.00
4.0	Drainage	£5,500.00
5.0	Signs and Markings	£12,500.00
6.0	Other	£22,837.50
		£296,310

CONTINGENCY 10%	£29,631
CIVILS TOTAL	£325,941

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE EXISTING ROAD, WHERE RETAINED, WILL BE RESURFACED AND THE WHOLE GYRATORY HAS BEEN RESURFACED

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

2.0 Junction 2 – A283 / Water Lane / Chanctonbury Ring Road Crossroads

2.1 PICADY Output: 2033 Baseline Scenario
2.2 PICADY Outputs: Proposed Development Scenarios
2.3 Proposed Junction Improvements
2.4 PICADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
2.5 Budget Cost Estimate for Off-Site Highway Works

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 2 - A - A283 + Water Lane - Existing Junction - 2033 Base including permitted.j9
Path: D:\5201 Shoreham\Amol\2 - A283 + Water Lane
Report generation date: 11/11/2021 11:10:06

»2033 Base including permitted, AM
»2033 Base including permitted, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Base including permitted													
Stream B-CD	0.0	22.91	0.03	C	5.95	A	-16 % [Stream B-AD]	2.2	1375.38	9999999999.00	F	41.10	E	-21 % [Stream B-AD]
Stream B-AD	0.5	182.90	0.36	F				1.1	1447.17	9999999999.00	F			
Stream A-BCD	2.0	11.62	0.56	B				1.3	9.59	0.47	A			
Stream D-AB	2.1	21.96	0.69	C				24.8	184.85	1.11	F			
Stream D-BC	0.1	51.16	0.13	F				4.8	322.46	1.03	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base including permitted, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	5.95	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-16	Stream B-AD

Arms

Arms

Arm	Name	Description	Arm type
A	A283 East		Major
B	Chanctonbury Ring Road		Minor
C	A283 West		Major
D	Water Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A283 East	6.80		✓	2.20	100.0	✓	2.00
C - A283 West	6.80		✓	2.20	100.0	✓	2.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Chanctonbury Ring Road	One lane plus flare	10.00	3.40	2.20	2.20	2.20	✓	1.00	51	80
D - Water Lane	One lane plus flare	10.00	8.30	5.50	4.20	4.10	✓	2.00	46	106

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	632	-	-	-	-	-	-	0.236	0.338	0.236	-	-	-
1	B-A	534	0.094	0.237	0.237	-	-	-	0.149	0.339	-	0.237	0.237	0.119
1	B-C	809	0.120	0.303	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	641	0.113	0.285	0.285	-	-	-	0.179	0.407	0.179	-	-	-
1	B-D, offside lane	534	0.094	0.237	0.237	-	-	-	0.149	0.339	0.149	-	-	-
1	C-B	632	0.236	0.236	0.338	-	-	-	-	-	-	-	-	-
1	D-A	805	-	-	-	-	-	-	0.301	-	0.119	-	-	-
1	D-B, nearside lane	635	0.178	0.178	0.403	-	-	-	0.282	0.282	0.112	-	-	-
1	D-B, offside lane	541	0.151	0.151	0.344	-	-	-	0.240	0.240	0.095	-	-	-
1	D-C	541	-	0.151	0.344	0.120	0.240	0.240	0.240	0.240	0.095	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1030	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	706	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	812	214
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	703	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.03	22.91	0.0	C	4	7
B-AD	0.36	182.90	0.5	F	9	14
A-BCD	0.56	11.62	2.0	B	273	410
A-B					3	5
A-C					669	1003
D-AB	0.69	21.96	2.1	C	297	445
D-BC	0.13	51.16	0.1	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					645	968

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	381	0.009	3	0.0	0.0	9.544	A
B-AD	8	2	190	0.041	8	0.0	0.0	19.716	C
A-BCD	184	46	557	0.330	181	0.0	0.5	9.542	A
A-B	3	0.73			3				
A-C	589	147			589				
D-AB	244	61	615	0.396	241	0.0	0.6	9.551	A
D-BC	7	2	237	0.030	7	0.0	0.0	15.657	C
C-ABD	0	0	837	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	529	132			529				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	313	0.013	4	0.0	0.0	11.661	B
B-AD	9	2	125	0.075	9	0.0	0.1	30.953	D
A-BCD	246	62	590	0.417	245	0.5	0.9	10.384	B
A-B	3	1			3				
A-C	676	169			676				
D-AB	291	73	578	0.503	290	0.6	1.0	12.416	B
D-BC	8	2	172	0.049	8	0.0	0.1	21.935	C
C-ABD	0	0	753	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	632	158			632				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	176	0.031	5	0.0	0.0	20.998	C
B-AD	11	3	32	0.342	10	0.1	0.4	154.380	F
A-BCD	390	97	701	0.557	386	0.9	1.9	11.351	B
A-B	4	1			4				
A-C	741	185			741				
D-AB	356	89	520	0.685	352	1.0	2.0	20.939	C
D-BC	10	3	82	0.125	10	0.1	0.1	49.424	E
C-ABD	0	0	638	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	774	194			774				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	162	0.035	6	0.0	0.0	22.908	C
B-AD	11	3	30	0.365	11	0.4	0.5	182.903	F
A-BCD	390	97	704	0.554	389	1.9	1.9	11.624	B
A-B	4	1			4				
A-C	741	185			741				
D-AB	356	89	519	0.686	356	2.0	2.1	21.961	C
D-BC	10	3	81	0.128	10	0.1	0.1	51.159	F
C-ABD	0	0	635	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	774	194			774				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	307	0.014	4	0.0	0.0	11.996	B
B-AD	9	2	123	0.076	11	0.5	0.1	32.490	D
A-BCD	246	62	596	0.413	250	1.9	1.0	10.714	B
A-B	3	1			3				
A-C	676	169			676				
D-AB	291	73	578	0.504	295	2.1	1.0	12.930	B
D-BC	8	2	170	0.050	9	0.1	0.1	22.386	C
C-ABD	0	0	749	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	632	158			632				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	379	0.009	3	0.0	0.0	9.596	A
B-AD	8	2	188	0.042	8	0.1	0.0	19.962	C
A-BCD	184	46	559	0.328	185	1.0	0.6	9.732	A
A-B	3	0.73			3				
A-C	589	147			589				
D-AB	244	61	615	0.396	245	1.0	0.7	9.766	A
D-BC	7	2	235	0.030	7	0.1	0.0	15.795	C
C-ABD	0	0	835	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	529	132			529				

2033 Base including permitted, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	41.10	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1283	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	689	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1091	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	682	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1375.38	2.2	F	3	4
B-AD	9999999999.00	1447.17	1.1	F	3	4
A-BCD	0.47	9.59	1.3	A	234	350
A-B					4	6
A-C					939	1409
D-AB	1.11	184.85	24.8	F	367	550
D-BC	1.03	322.46	4.8	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					626	939

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	334	0.006	2	0.0	0.0	10.847	B
B-AD	3	0.66	170	0.015	3	0.0	0.0	21.453	C
A-BCD	160	40	568	0.281	158	0.0	0.4	8.761	A
A-B	4	0.92			4				
A-C	803	201			803				
D-AB	301	75	610	0.493	297	0.0	0.9	11.365	B
D-BC	38	9	227	0.167	37	0.0	0.2	18.862	C
C-ABD	0	0	770	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	513	128			513				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	252	0.009	2	0.0	0.0	14.408	B
B-AD	3	0.78	90	0.034	3	0.0	0.0	41.128	E
A-BCD	212	53	601	0.353	211	0.4	0.7	9.226	A
A-B	4	1			4				
A-C	937	234			937				
D-AB	359	90	561	0.640	356	0.9	1.7	17.296	C
D-BC	45	11	156	0.290	45	0.2	0.4	32.034	D
C-ABD	0	0	673	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	613	153			613				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1375.381	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1447.174	F
A-BCD	329	82	707	0.465	326	0.7	1.3	9.469	A
A-B	5	1			5				
A-C	1079	270			1079				
D-AB	440	110	424	1.039	397	1.7	12.5	85.691	F
D-BC	55	14	54	1.026	43	0.4	3.5	231.918	F
C-ABD	0	0	540	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	751	188			751				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	493.300	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	588.031	F
A-BCD	329	82	708	0.465	329	1.3	1.3	9.589	A
A-B	5	1			5				
A-C	1079	270			1079				
D-AB	440	110	397	1.109	391	12.5	24.8	184.851	F
D-BC	55	14	56	0.986	50	3.5	4.8	322.455	F
C-ABD	0	0	539	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	751	188			751				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.61	221	0.011	11	2.2	0.0	17.838	C
B-AD	3	0.74	49	0.061	7	1.1	0.1	93.401	F
A-BCD	212	53	602	0.353	215	1.3	0.7	9.394	A
A-B	4	1			4				
A-C	937	234			937				
D-AB	359	90	532	0.676	449	24.8	2.3	71.220	F
D-BC	45	11	114	0.398	62	4.8	0.7	83.669	F
C-ABD	0	0	671	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	613	153			613				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	333	0.006	2	0.0	0.0	10.890	B
B-AD	3	0.66	167	0.016	3	0.1	0.0	21.920	C
A-BCD	160	40	568	0.281	161	0.7	0.5	8.880	A
A-B	4	0.92			4				
A-C	803	201			803				
D-AB	301	75	608	0.495	306	2.3	1.0	12.147	B
D-BC	38	9	225	0.169	40	0.7	0.2	19.658	C
C-ABD	0	0	768	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	513	128			513				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: 2 - B - A283 + Water Lane - Existing Junction - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\2 - A283 + Water Lane
Report generation date: 11/11/2021 11:11:30

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 2.2
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
Stream B-CD	0.1	81.30	0.13	F	7.10	A	-18 % [Stream B-AD]	2.2	1377.83	9999999999.00	F	54.48	F	-22 % [Stream B-AD]
Stream B-AD	1.0	374.64	0.66	F				1.1	1522.18	9999999999.00	F			
Stream A-BCD	2.1	11.66	0.57	B				1.4	9.67	0.47	A			
Stream D-AB	2.2	23.38	0.70	C				35.5	261.63	1.19	F			
Stream D-BC	0.2	60.47	0.15	F				5.9	411.45	1.09	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 2 Total														
Stream B-CD	0.1	38.23	0.06	E	6.86	A	-17 % [Stream B-AD]	2.2	1377.02	9999999999.00	F	49.11	E	-22 % [Stream B-AD]
Stream B-AD	0.8	345.70	0.54	F				1.1	1490.04	9999999999.00	F			
Stream A-BCD	2.1	11.69	0.57	B				1.4	9.60	0.47	A			
Stream D-AB	2.2	23.11	0.70	C				31.5	231.80	1.16	F			
Stream D-BC	0.2	58.21	0.14	F				5.5	371.86	1.07	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 3 Total														
Stream B-CD	0.1	32.42	0.05	D	6.62	A	-17 % [Stream B-AD]	2.2	1376.60	9999999999.00	F	47.97	E	-22 % [Stream B-AD]
Stream B-AD	0.7	299.78	0.50	F				1.1	1479.23	9999999999.00	F			
Stream A-BCD	2.1	11.68	0.57	B				1.4	9.62	0.47	A			
Stream D-AB	2.2	22.85	0.70	C				30.5	224.92	1.16	F			
Stream D-BC	0.2	56.72	0.14	F				5.4	364.05	1.06	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 4 Total														
Stream B-CD	0.0	28.48	0.04	D	6.42	A	-17 % [Stream B-AD]	2.2	1376.00	9999999999.00	F	44.54	E	-21 % [Stream B-AD]
Stream B-AD	0.6	258.35	0.46	F				1.1	1461.94	9999999999.00	F			
Stream A-BCD	2.1	11.75	0.57	B				1.4	9.60	0.47	A			
Stream D-AB	2.2	22.75	0.69	C				27.7	205.03	1.13	F			
Stream D-BC	0.2	56.00	0.14	F				5.1	342.60	1.04	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	7.10	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	Stream B-AD

Arms

Arms

Arm	Name	Description	Arm type
A	A283 East		Major
B	Chanctonbury Ring Road		Minor
C	A283 West		Major
D	Water Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A283 East	6.80		✓	2.20	100.0	✓	2.00
C - A283 West	6.80		✓	2.20	100.0	✓	2.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Chanctonbury Ring Road	One lane plus flare	10.00	3.40	2.20	2.20	2.20	✓	1.00	51	80
D - Water Lane	One lane plus flare	10.00	8.30	5.50	4.20	4.10	✓	2.00	46	106

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	632	-	-	-	-	-	-	0.236	0.338	0.236	-	-	-
1	B-A	534	0.094	0.237	0.237	-	-	-	0.149	0.339	-	0.237	0.237	0.119
1	B-C	809	0.120	0.303	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	641	0.113	0.285	0.285	-	-	-	0.179	0.407	0.179	-	-	-
1	B-D, offside lane	534	0.094	0.237	0.237	-	-	-	0.149	0.339	0.149	-	-	-
1	C-B	632	0.236	0.236	0.338	-	-	-	-	-	-	-	-	-
1	D-A	805	-	-	-	-	-	-	0.301	-	0.119	-	-	-
1	D-B, nearside lane	635	0.178	0.178	0.403	-	-	-	0.282	0.282	0.112	-	-	-
1	D-B, offside lane	541	0.151	0.151	0.344	-	-	-	0.240	0.240	0.095	-	-	-
1	D-C	541	-	0.151	0.344	0.120	0.240	0.240	0.240	0.240	0.095	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1066	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	727	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	846	216
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	724	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.13	81.30	0.1	F	5	7
B-AD	0.66	374.64	1.0	F	9	14
A-BCD	0.57	11.66	2.1	B	283	425
A-B					3	5
A-C					692	1037
D-AB	0.70	23.38	2.2	C	297	445
D-BC	0.15	60.47	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					664	997

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	370	0.009	3	0.0	0.0	9.806	A
B-AD	8	2	182	0.043	8	0.0	0.0	20.666	C
A-BCD	187	47	559	0.335	185	0.0	0.6	9.590	A
A-B	3	0.72			3				
A-C	612	153			612				
D-AB	244	61	611	0.399	241	0.0	0.7	9.675	A
D-BC	7	2	229	0.031	7	0.0	0.0	16.228	C
C-ABD	0	0	824	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	545	136			545				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	299	0.014	4	0.0	0.0	12.202	B
B-AD	9	2	115	0.081	9	0.0	0.1	33.930	D
A-BCD	253	63	596	0.425	252	0.6	0.9	10.416	B
A-B	3	1			3				
A-C	702	175			702				
D-AB	291	73	572	0.509	289	0.7	1.0	12.681	B
D-BC	8	2	163	0.052	8	0.0	0.1	23.289	C
C-ABD	0	0	737	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	651	163			651				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	114	0.052	6	0.0	0.1	32.802	D
B-AD	11	3	18	0.584	8	0.1	0.8	317.722	F
A-BCD	409	102	720	0.569	405	0.9	2.0	11.358	B
A-B	4	1			4				
A-C	761	190			761				
D-AB	356	89	510	0.698	352	1.0	2.1	22.106	C
D-BC	10	3	72	0.143	10	0.1	0.2	57.763	F
C-ABD	0	0	618	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	797	199			797				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	2	50	0.128	6	0.1	0.1	81.297	F
B-AD	10	3	15	0.660	9	0.8	1.1	374.636	F
A-BCD	409	102	723	0.566	409	2.0	2.1	11.658	B
A-B	4	1			4				
A-C	761	190			761				
D-AB	356	89	509	0.700	356	2.1	2.2	23.377	C
D-BC	10	3	70	0.148	10	0.2	0.2	60.467	F
C-ABD	0	0	616	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	797	199			797				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	285	0.015	5	0.1	0.0	13.073	B
B-AD	9	2	111	0.084	13	1.1	0.1	37.591	E
A-BCD	253	63	603	0.420	258	2.1	1.0	10.787	B
A-B	3	1			3				
A-C	702	175			702				
D-AB	291	73	571	0.509	296	2.2	1.1	13.271	B
D-BC	8	2	160	0.053	9	0.2	0.1	23.898	C
C-ABD	0	0	734	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	651	163			651				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	369	0.009	3	0.0	0.0	9.874	A
B-AD	8	2	180	0.044	8	0.1	0.0	20.945	C
A-BCD	187	47	561	0.334	189	1.0	0.6	9.794	A
A-B	3	0.72			3				
A-C	612	153			612				
D-AB	244	61	610	0.399	245	1.1	0.7	9.899	A
D-BC	7	2	227	0.031	7	0.1	0.0	16.381	C
C-ABD	0	0	821	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	545	136			545				

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	54.48	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1300	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	720	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1108	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	713	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1377.83	2.2	F	3	4
B-AD	9999999999.00	1522.18	1.1	F	3	4
A-BCD	0.47	9.67	1.4	A	238	357
A-B					4	6
A-C					951	1426
D-AB	1.19	261.63	35.5	F	367	550
D-BC	1.09	411.45	5.9	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					654	981

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	326	0.006	2	0.0	0.0	11.119	B
B-AD	3	0.66	164	0.016	3	0.0	0.0	22.364	C
A-BCD	161	40	565	0.284	159	0.0	0.4	8.841	A
A-B	4	0.92			4				
A-C	815	204			815				
D-AB	301	75	603	0.499	297	0.0	1.0	11.637	B
D-BC	38	9	220	0.173	37	0.0	0.2	19.647	C
C-ABD	0	0	764	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	537	134			537				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	241	0.009	2	0.0	0.0	15.055	C
B-AD	3	0.78	81	0.038	3	0.0	0.0	45.827	E
A-BCD	215	54	600	0.358	214	0.4	0.7	9.312	A
A-B	4	1			4				
A-C	950	237			950				
D-AB	359	90	551	0.652	356	1.0	1.8	18.188	C
D-BC	45	11	147	0.309	44	0.2	0.4	34.874	D
C-ABD	0	0	666	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	641	160			641				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1377.835	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1522.181	F
A-BCD	338	84	713	0.474	335	0.7	1.4	9.537	A
A-B	5	1			5				
A-C	1089	272			1089				
D-AB	440	110	397	1.109	380	1.8	17.0	111.987	F
D-BC	55	14	51	1.093	41	0.4	3.9	263.769	F
C-ABD	0	0	531	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	785	196			785				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	497.481	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	694.375	F
A-BCD	338	84	714	0.473	338	1.4	1.4	9.671	A
A-B	5	1			5				
A-C	1089	272			1089				
D-AB	440	110	368	1.195	366	17.0	35.5	261.631	F
D-BC	55	14	51	1.074	47	3.9	5.9	411.453	F
C-ABD	0	0	530	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	785	196			785				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.65	202	0.013	11	2.2	0.0	19.745	C
B-AD	3	0.70	27	0.102	7	1.1	0.1	188.825	F
A-BCD	215	54	601	0.357	218	1.4	0.7	9.496	A
A-B	4	1			4				
A-C	950	237			950				
D-AB	359	90	508	0.707	488	35.5	3.4	148.590	F
D-BC	45	11	74	0.614	60	5.9	2.3	251.503	F
C-ABD	0	0	664	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	641	160			641				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	324	0.006	2	0.0	0.0	11.177	B
B-AD	3	0.65	158	0.017	3	0.1	0.0	23.244	C
A-BCD	161	40	565	0.284	162	0.7	0.5	8.966	A
A-B	4	0.92			4				
A-C	815	204			815				
D-AB	301	75	594	0.506	310	3.4	1.1	13.076	B
D-BC	38	9	217	0.175	46	2.3	0.2	22.000	C
C-ABD	0	0	762	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	537	134			537				

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.86	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1055	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	724	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	835	216
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	721	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.06	38.23	0.1	E	5	7
B-AD	0.54	345.70	0.8	F	9	14
A-BCD	0.57	11.69	2.1	B	282	423
A-B					3	5
A-C					683	1025
D-AB	0.70	23.11	2.2	C	297	445
D-BC	0.14	58.21	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					662	992

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	373	0.009	3	0.0	0.0	9.732	A
B-AD	8	2	184	0.043	8	0.0	0.0	20.411	C
A-BCD	187	47	558	0.335	185	0.0	0.6	9.594	A
A-B	3	0.72			3				
A-C	605	151			605				
D-AB	244	61	611	0.398	241	0.0	0.7	9.656	A
D-BC	7	2	230	0.031	7	0.0	0.0	16.098	C
C-ABD	0	0	828	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	543	136			543				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	303	0.014	4	0.0	0.0	12.049	B
B-AD	9	2	118	0.079	9	0.0	0.1	33.090	D
A-BCD	252	63	594	0.425	251	0.6	0.9	10.432	B
A-B	3	1			3				
A-C	693	173			693				
D-AB	291	73	573	0.508	289	0.7	1.0	12.640	B
D-BC	8	2	165	0.051	8	0.0	0.1	22.980	C
C-ABD	0	0	742	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	648	162			648				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	137	0.042	6	0.0	0.0	27.087	D
B-AD	11	3	22	0.491	9	0.1	0.6	250.783	F
A-BCD	406	102	715	0.568	402	0.9	2.0	11.396	B
A-B	4	1			4				
A-C	752	188			752				
D-AB	356	89	512	0.696	352	1.0	2.1	21.889	C
D-BC	10	3	74	0.139	10	0.1	0.2	55.769	F
C-ABD	0	0	624	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	794	198			794				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	2	100	0.061	6	0.0	0.1	38.228	E
B-AD	10	3	19	0.544	10	0.6	0.8	345.702	F
A-BCD	406	102	719	0.565	406	2.0	2.1	11.695	B
A-B	4	1			4				
A-C	752	188			752				
D-AB	356	89	511	0.697	356	2.1	2.2	23.107	C
D-BC	10	3	72	0.143	10	0.2	0.2	58.209	F
C-ABD	0	0	622	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	794	198			794				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	294	0.014	4	0.1	0.0	12.643	B
B-AD	9	2	114	0.082	12	0.8	0.1	35.827	E
A-BCD	252	63	601	0.420	257	2.1	1.0	10.799	B
A-B	3	1			3				
A-C	693	173			693				
D-AB	291	73	572	0.508	295	2.2	1.1	13.212	B
D-BC	8	2	162	0.052	9	0.2	0.1	23.543	C
C-ABD	0	0	738	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	648	162			648				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	372	0.009	3	0.0	0.0	9.796	A
B-AD	8	2	182	0.043	8	0.1	0.0	20.679	C
A-BCD	187	47	561	0.333	188	1.0	0.6	9.798	A
A-B	3	0.72			3				
A-C	605	151			605				
D-AB	244	61	611	0.399	245	1.1	0.7	9.878	A
D-BC	7	2	229	0.031	7	0.1	0.0	16.250	C
C-ABD	0	0	825	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	543	136			543				

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	49.11	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1303	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	705	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1111	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	698	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1377.02	2.2	F	3	4
B-AD	9999999999.00	1490.04	1.1	F	3	4
A-BCD	0.47	9.60	1.4	A	236	355
A-B					4	6
A-C					955	1432
D-AB	1.16	231.80	31.5	F	367	550
D-BC	1.07	371.86	5.5	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					640	961

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	327	0.006	2	0.0	0.0	11.076	B
B-AD	3	0.66	165	0.016	3	0.0	0.0	22.191	C
A-BCD	160	40	567	0.283	159	0.0	0.4	8.790	A
A-B	4	0.92			4				
A-C	817	204			817				
D-AB	301	75	606	0.496	297	0.0	1.0	11.510	B
D-BC	38	9	222	0.171	37	0.0	0.2	19.383	C
C-ABD	0	0	763	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	525	131			525				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	243	0.009	2	0.0	0.0	14.945	B
B-AD	3	0.78	83	0.037	3	0.0	0.0	44.908	E
A-BCD	214	54	602	0.356	213	0.4	0.7	9.250	A
A-B	4	1			4				
A-C	953	238			953				
D-AB	359	90	555	0.647	356	1.0	1.7	17.785	C
D-BC	45	11	150	0.302	44	0.2	0.4	33.861	D
C-ABD	0	0	665	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	627	157			627				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1377.020	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1490.044	F
A-BCD	335	84	713	0.470	332	0.7	1.3	9.468	A
A-B	5	1			5				
A-C	1095	274			1095				
D-AB	440	110	407	1.082	386	1.7	15.2	101.629	F
D-BC	55	14	52	1.068	42	0.4	3.7	251.519	F
C-ABD	0	0	530	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	769	192			769				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	496.092	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	648.795	F
A-BCD	335	84	713	0.469	335	1.3	1.4	9.596	A
A-B	5	1			5				
A-C	1095	274			1095				
D-AB	440	110	379	1.163	375	15.2	31.5	231.800	F
D-BC	55	14	53	1.041	48	3.7	5.5	371.859	F
C-ABD	0	0	528	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	769	192			769				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.63	208	0.012	11	2.2	0.0	19.107	C
B-AD	3	0.72	34	0.085	7	1.1	0.1	145.774	F
A-BCD	214	54	603	0.355	217	1.4	0.7	9.428	A
A-B	4	1			4				
A-C	953	238			953				
D-AB	359	90	518	0.694	474	31.5	2.8	115.065	F
D-BC	45	11	90	0.502	62	5.5	1.2	152.914	F
C-ABD	0	0	662	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	627	157			627				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	325	0.006	2	0.0	0.0	11.129	B
B-AD	3	0.66	161	0.016	3	0.1	0.0	22.852	C
A-BCD	160	40	567	0.283	161	0.7	0.5	8.914	A
A-B	4	0.92			4				
A-C	817	204			817				
D-AB	301	75	602	0.500	308	2.8	1.0	12.524	B
D-BC	38	9	220	0.173	42	1.2	0.2	20.686	C
C-ABD	0	0	761	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	525	131			525				

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.62	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1051	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	720	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	831	216
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	717	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.05	32.42	0.1	D	4	7
B-AD	0.50	299.78	0.7	F	9	14
A-BCD	0.57	11.68	2.1	B	281	421
A-B					3	5
A-C					680	1020
D-AB	0.70	22.85	2.2	C	297	445
D-BC	0.14	56.72	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					658	987

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	375	0.009	3	0.0	0.0	9.699	A
B-AD	8	2	185	0.042	8	0.0	0.0	20.278	C
A-BCD	187	47	558	0.334	184	0.0	0.6	9.585	A
A-B	3	0.72			3				
A-C	602	150			602				
D-AB	244	61	612	0.398	241	0.0	0.6	9.633	A
D-BC	7	2	232	0.031	7	0.0	0.0	16.014	C
C-ABD	0	0	829	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	540	135			540				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	304	0.014	4	0.0	0.0	11.976	B
B-AD	9	2	119	0.078	9	0.0	0.1	32.681	D
A-BCD	252	63	594	0.424	250	0.6	0.9	10.424	B
A-B	3	1			3				
A-C	690	172			690				
D-AB	291	73	574	0.507	289	0.6	1.0	12.588	B
D-BC	8	2	166	0.051	8	0.0	0.1	22.776	C
C-ABD	0	0	744	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	645	161			645				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	146	0.039	6	0.0	0.0	25.367	D
B-AD	11	3	24	0.455	9	0.1	0.6	225.942	F
A-BCD	404	101	714	0.566	400	0.9	2.0	11.391	B
A-B	4	1			4				
A-C	750	187			750				
D-AB	356	89	514	0.694	352	1.0	2.1	21.677	C
D-BC	10	3	76	0.136	10	0.1	0.1	54.446	F
C-ABD	0	0	626	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	789	197			789				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	117	0.051	6	0.0	0.1	32.422	D
B-AD	11	3	21	0.499	10	0.6	0.7	299.782	F
A-BCD	404	101	717	0.563	404	2.0	2.1	11.684	B
A-B	4	1			4				
A-C	750	187			750				
D-AB	356	89	513	0.695	356	2.1	2.2	22.848	C
D-BC	10	3	74	0.140	10	0.1	0.2	56.724	F
C-ABD	0	0	624	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	789	197			789				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	297	0.014	4	0.1	0.0	12.495	B
B-AD	9	2	116	0.081	12	0.7	0.1	35.091	E
A-BCD	252	63	601	0.419	256	2.1	1.0	10.785	B
A-B	3	1			3				
A-C	690	172			690				
D-AB	291	73	573	0.507	295	2.2	1.1	13.151	B
D-BC	8	2	164	0.052	9	0.2	0.1	23.312	C
C-ABD	0	0	740	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	645	161			645				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	373	0.009	3	0.0	0.0	9.757	A
B-AD	8	2	183	0.043	8	0.1	0.0	20.546	C
A-BCD	187	47	561	0.333	188	1.0	0.6	9.785	A
A-B	3	0.72			3				
A-C	602	150			602				
D-AB	244	61	612	0.398	245	1.1	0.7	9.852	A
D-BC	7	2	230	0.031	7	0.1	0.0	16.162	C
C-ABD	0	0	827	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	540	135			540				

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	47.97	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1296	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	705	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1104	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	698	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1376.60	2.2	F	3	4
B-AD	9999999999.00	1479.23	1.1	F	3	4
A-BCD	0.47	9.62	1.4	A	236	354
A-B					4	6
A-C					949	1423
D-AB	1.16	224.92	30.5	F	367	550
D-BC	1.06	364.05	5.4	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					640	961

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	329	0.006	2	0.0	0.0	11.019	B
B-AD	3	0.66	166	0.016	3	0.0	0.0	22.014	C
A-BCD	160	40	566	0.283	158	0.0	0.4	8.797	A
A-B	4	0.92			4				
A-C	812	203			812				
D-AB	301	75	606	0.496	297	0.0	1.0	11.506	B
D-BC	38	9	223	0.170	37	0.0	0.2	19.305	C
C-ABD	0	0	765	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	525	131			525				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	245	0.009	2	0.0	0.0	14.812	B
B-AD	3	0.78	85	0.037	3	0.0	0.0	43.962	E
A-BCD	214	53	601	0.356	213	0.4	0.7	9.263	A
A-B	4	1			4				
A-C	947	237			947				
D-AB	359	90	556	0.646	356	1.0	1.7	17.757	C
D-BC	45	11	151	0.300	44	0.2	0.4	33.597	D
C-ABD	0	0	668	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	627	157			627				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1376.598	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1479.229	F
A-BCD	334	83	711	0.470	331	0.7	1.3	9.491	A
A-B	5	1			5				
A-C	1088	272			1088				
D-AB	440	110	409	1.076	388	1.7	14.8	99.325	F
D-BC	55	14	52	1.062	42	0.4	3.7	248.714	F
C-ABD	0	0	533	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	769	192			769				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	495.374	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	633.473	F
A-BCD	334	83	712	0.469	334	1.3	1.4	9.619	A
A-B	5	1			5				
A-C	1088	272			1088				
D-AB	440	110	381	1.155	378	14.8	30.5	224.921	F
D-BC	55	14	53	1.033	48	3.7	5.4	364.047	F
C-ABD	0	0	532	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	769	192			769				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.63	211	0.012	11	2.2	0.0	18.777	C
B-AD	3	0.72	37	0.079	7	1.1	0.1	132.002	F
A-BCD	214	53	602	0.355	216	1.4	0.7	9.441	A
A-B	4	1			4				
A-C	947	237			947				
D-AB	359	90	520	0.692	471	30.5	2.7	108.299	F
D-BC	45	11	93	0.484	62	5.4	1.1	138.919	F
C-ABD	0	0	665	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	627	157			627				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	327	0.006	2	0.0	0.0	11.070	B
B-AD	3	0.66	162	0.016	3	0.1	0.0	22.627	C
A-BCD	160	40	567	0.283	161	0.7	0.5	8.919	A
A-B	4	0.92			4				
A-C	812	203			812				
D-AB	301	75	602	0.500	308	2.7	1.0	12.478	B
D-BC	38	9	221	0.172	42	1.1	0.2	20.498	C
C-ABD	0	0	764	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	525	131			525				

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.42	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1043	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	722	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	823	216
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	719	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.04	28.48	0.0	D	4	7
B-AD	0.46	258.35	0.6	F	9	14
A-BCD	0.57	11.75	2.1	B	280	420
A-B					3	5
A-C					674	1010
D-AB	0.69	22.75	2.2	C	296	444
D-BC	0.14	56.00	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					660	990

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	376	0.009	3	0.0	0.0	9.657	A
B-AD	8	2	186	0.042	8	0.0	0.0	20.129	C
A-BCD	186	47	557	0.334	184	0.0	0.6	9.604	A
A-B	3	0.72			3				
A-C	596	149			596				
D-AB	243	61	612	0.397	240	0.0	0.6	9.625	A
D-BC	7	2	232	0.031	7	0.0	0.0	15.972	C
C-ABD	0	0	832	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	541	135			541				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	307	0.014	4	0.0	0.0	11.894	B
B-AD	9	2	121	0.077	9	0.0	0.1	32.214	D
A-BCD	251	63	592	0.424	250	0.6	0.9	10.457	B
A-B	3	1			3				
A-C	683	171			683				
D-AB	290	72	573	0.506	289	0.6	1.0	12.573	B
D-BC	8	2	167	0.051	8	0.0	0.1	22.676	C
C-ABD	0	0	747	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	646	162			646				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	155	0.036	6	0.0	0.0	23.861	C
B-AD	11	3	26	0.419	9	0.1	0.5	201.883	F
A-BCD	403	101	711	0.567	399	0.9	2.0	11.448	B
A-B	4	1			4				
A-C	742	185			742				
D-AB	355	89	513	0.692	351	1.0	2.1	21.597	C
D-BC	10	3	76	0.135	10	0.1	0.1	53.806	F
C-ABD	0	0	630	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	792	198			792				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	132	0.044	6	0.0	0.0	28.484	D
B-AD	11	3	23	0.456	10	0.5	0.7	258.353	F
A-BCD	403	101	715	0.564	403	2.0	2.1	11.746	B
A-B	4	1			4				
A-C	742	185			742				
D-AB	355	89	512	0.693	355	2.1	2.2	22.753	C
D-BC	10	3	74	0.138	10	0.1	0.2	56.003	F
C-ABD	0	0	628	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	792	198			792				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	300	0.014	4	0.0	0.0	12.352	B
B-AD	9	2	118	0.080	12	0.7	0.1	34.330	D
A-BCD	251	63	599	0.419	256	2.1	1.0	10.820	B
A-B	3	1			3				
A-C	683	171			683				
D-AB	290	72	573	0.506	294	2.2	1.1	13.124	B
D-BC	8	2	164	0.052	9	0.2	0.1	23.199	C
C-ABD	0	0	743	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	646	162			646				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	375	0.009	3	0.0	0.0	9.715	A
B-AD	8	2	185	0.043	8	0.1	0.0	20.391	C
A-BCD	186	47	560	0.333	188	1.0	0.6	9.805	A
A-B	3	0.72			3				
A-C	596	149			596				
D-AB	243	61	612	0.397	244	1.1	0.7	9.845	A
D-BC	7	2	231	0.031	7	0.1	0.0	16.119	C
C-ABD	0	0	830	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	541	135			541				

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	44.54	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1291	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	697	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1099	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	690	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1376.00	2.2	F	3	4
B-AD	9999999999.00	1461.94	1.1	F	3	4
A-BCD	0.47	9.60	1.4	A	235	352
A-B					4	6
A-C					945	1418
D-AB	1.13	205.03	27.7	F	367	550
D-BC	1.04	342.60	5.1	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					633	950

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	331	0.006	2	0.0	0.0	10.944	B
B-AD	3	0.66	168	0.016	3	0.0	0.0	21.766	C
A-BCD	160	40	567	0.282	158	0.0	0.4	8.776	A
A-B	4	0.92			4				
A-C	808	202			808				
D-AB	301	75	608	0.495	297	0.0	1.0	11.434	B
D-BC	38	9	225	0.169	37	0.0	0.2	19.099	C
C-ABD	0	0	767	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	519	130			519				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	248	0.009	2	0.0	0.0	14.633	B
B-AD	3	0.78	87	0.036	3	0.0	0.0	42.675	E
A-BCD	213	53	602	0.354	212	0.4	0.7	9.241	A
A-B	4	1			4				
A-C	943	236			943				
D-AB	359	90	559	0.643	356	1.0	1.7	17.527	C
D-BC	45	11	153	0.295	44	0.2	0.4	32.852	D
C-ABD	0	0	670	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	620	155			620				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1376.002	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1461.935	F
A-BCD	332	83	710	0.467	329	0.7	1.3	9.474	A
A-B	5	1			5				
A-C	1085	271			1085				
D-AB	440	110	416	1.058	392	1.7	13.6	92.534	F
D-BC	55	14	53	1.044	42	0.4	3.6	240.443	F
C-ABD	0	0	536	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	760	190			760				

17:30 - 17:45

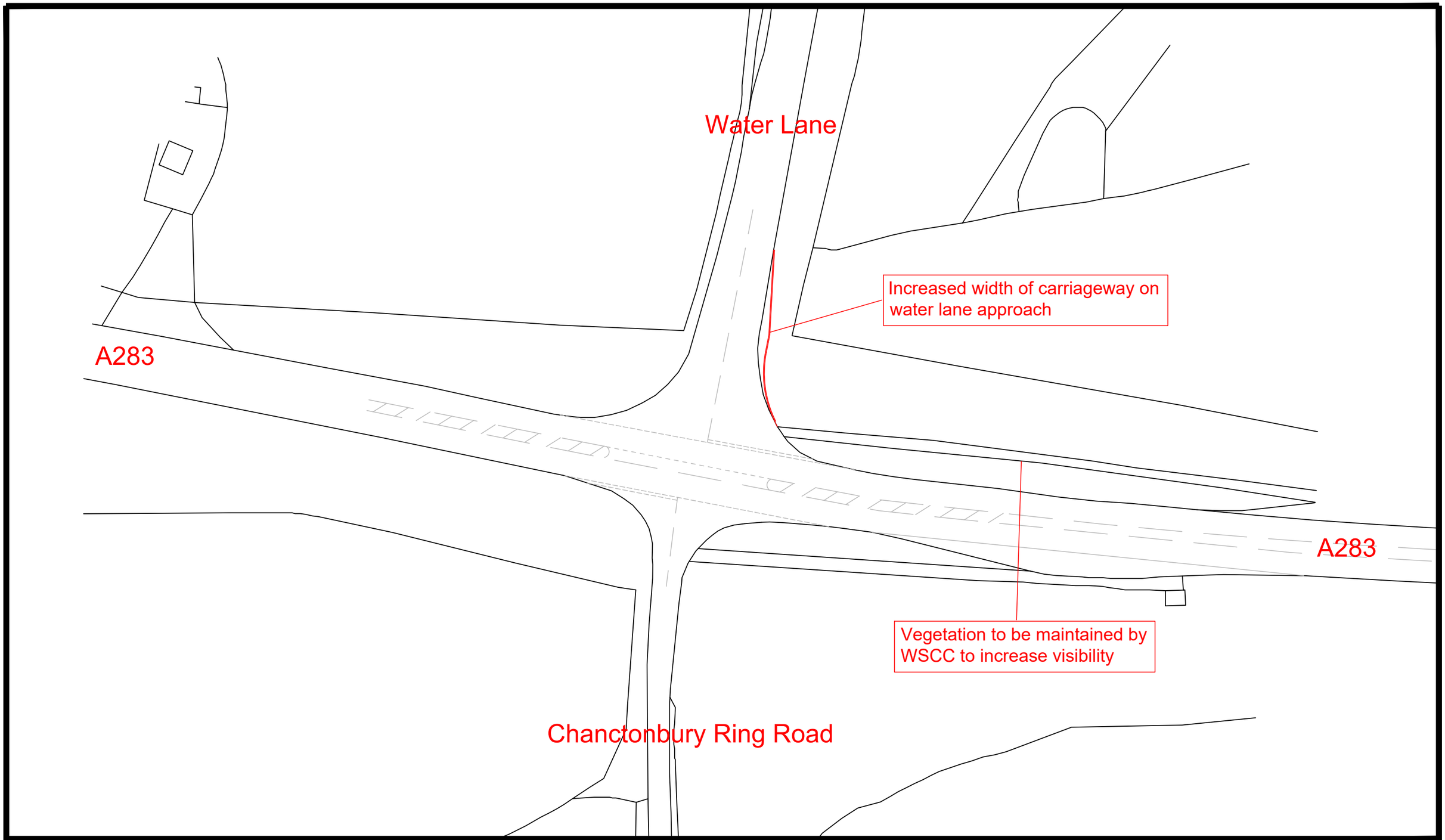
Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	494.358	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	608.957	F
A-BCD	332	83	710	0.467	331	1.3	1.4	9.598	A
A-B	5	1			5				
A-C	1085	271			1085				
D-AB	440	110	389	1.133	384	13.6	27.7	205.029	F
D-BC	55	14	55	1.010	49	3.6	5.1	342.605	F
C-ABD	0	0	534	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	760	190			760				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.62	216	0.011	11	2.2	0.0	18.314	C
B-AD	3	0.73	42	0.069	7	1.1	0.1	110.731	F
A-BCD	213	53	602	0.354	216	1.4	0.7	9.413	A
A-B	4	1			4				
A-C	943	236			943				
D-AB	359	90	526	0.684	460	27.7	2.5	88.762	F
D-BC	45	11	104	0.436	62	5.1	0.9	106.060	F
C-ABD	0	0	668	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	620	155			620				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	330	0.006	2	0.0	0.0	10.990	B
B-AD	3	0.66	165	0.016	3	0.1	0.0	22.299	C
A-BCD	160	40	567	0.282	161	0.7	0.5	8.897	A
A-B	4	0.92			4				
A-C	808	202			808				
D-AB	301	75	605	0.497	307	2.5	1.0	12.296	B
D-BC	38	9	223	0.170	41	0.9	0.2	20.049	C
C-ABD	0	0	765	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	519	130			519				



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NOTES

1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A283 / WATER

Date	Drawn		
15/11/2021	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
1/500@A3	APPENDIX 2.3		

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: 2 - C - A283 + Water Lane - Improved Junction - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\2 - A283 + Water Lane
Report generation date: 11/11/2021 11:50:55

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
Stream B-CD	0.1	77.03	0.12	F	6.80	A	-18 % [Stream B-AD]	2.2	1377.14	9999999999.00	F	45.11	E	-22 % [Stream B-AD]
Stream B-AD	1.0	371.38	0.65	F				1.1	1484.29	9999999999.00	F			
Stream A-BCD	2.1	11.66	0.57	B				1.4	9.67	0.47	A			
Stream D-AB	2.1	21.56	0.68	C				28.8	211.35	1.15	F			
Stream D-BC	0.2	57.66	0.14	F				5.2	346.80	1.05	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 2 Total														
Stream B-CD	0.1	37.71	0.06	E	6.58	A	-17 % [Stream B-AD]	2.2	1376.61	9999999999.00	F	40.49	E	-22 % [Stream B-AD]
Stream B-AD	0.8	341.73	0.54	F				1.1	1464.78	9999999999.00	F			
Stream A-BCD	2.1	11.70	0.57	B				1.4	9.60	0.47	A			
Stream D-AB	2.0	21.32	0.68	C				24.9	184.64	1.11	F			
Stream D-BC	0.2	55.59	0.14	F				4.8	321.18	1.02	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 3 Total														
Stream B-CD	0.1	32.14	0.05	D	6.34	A	-17 % [Stream B-AD]	2.2	1376.27	9999999999.00	F	39.50	E	-22 % [Stream B-AD]
Stream B-AD	0.7	296.73	0.50	F				1.1	1457.68	9999999999.00	F			
Stream A-BCD	2.1	11.68	0.57	B				1.4	9.62	0.47	A			
Stream D-AB	2.0	21.10	0.68	C				24.0	178.55	1.11	F			
Stream D-BC	0.1	54.24	0.13	F				4.7	315.53	1.02	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 4 Total														
Stream B-CD	0.0	28.32	0.04	D	6.15	A	-17 % [Stream B-AD]	2.2	1375.78	9999999999.00	F	36.54	E	-21 % [Stream B-AD]
Stream B-AD	0.6	256.02	0.45	F				1.1	1446.04	9999999999.00	F			
Stream A-BCD	2.1	11.75	0.57	B				1.4	9.60	0.47	A			
Stream D-AB	2.0	21.02	0.68	C				21.4	161.16	1.08	F			
Stream D-BC	0.1	53.61	0.13	F				4.5	299.62	1.00	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.80	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	Stream B-AD

Arms

Arms

Arm	Name	Description	Arm type
A	A283 East		Major
B	Chanctonbury Ring Road		Minor
C	A283 West		Major
D	Water Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A283 East	6.80		✓	2.20	100.0	✓	2.00
C - A283 West	6.80		✓	2.20	100.0	✓	2.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Chanctonbury Ring Road	One lane plus flare	10.00	3.40	2.20	2.20	2.20	✓	1.00	51	80
D - Water Lane	One lane plus flare	10.00	8.30	6.00	5.50	5.00	✓	3.00	100	106

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	632	-	-	-	-	-	-	0.236	0.338	0.236	-	-	-
1	B-A	534	0.094	0.237	0.237	-	-	-	0.149	0.339	-	0.237	0.237	0.119
1	B-C	809	0.120	0.303	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	641	0.113	0.285	0.285	-	-	-	0.179	0.407	0.179	-	-	-
1	B-D, offside lane	534	0.094	0.237	0.237	-	-	-	0.149	0.339	0.149	-	-	-
1	C-B	632	0.236	0.236	0.338	-	-	-	-	-	-	-	-	-
1	D-A	827	-	-	-	-	-	-	0.309	-	0.122	-	-	-
1	D-B, nearside lane	675	0.189	0.189	0.428	-	-	-	0.300	0.300	0.119	-	-	-
1	D-B, offside lane	507	0.142	0.142	0.322	-	-	-	0.225	0.225	0.089	-	-	-
1	D-C	507	-	0.142	0.322	0.113	0.225	0.225	0.225	0.225	0.089	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1066	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	727	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	846	216
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	724	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.12	77.03	0.1	F	5	7
B-AD	0.65	371.38	1.0	F	9	14
A-BCD	0.57	11.66	2.1	B	283	425
A-B					3	5
A-C					692	1037
D-AB	0.68	21.56	2.1	C	297	445
D-BC	0.14	57.66	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					664	997

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	370	0.009	3	0.0	0.0	9.806	A
B-AD	8	2	182	0.043	8	0.0	0.0	20.666	C
A-BCD	187	47	559	0.335	185	0.0	0.6	9.590	A
A-B	3	0.72			3				
A-C	612	153			612				
D-AB	244	61	627	0.389	241	0.0	0.6	9.282	A
D-BC	7	2	218	0.033	7	0.0	0.0	17.083	C
C-ABD	0	0	824	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	545	136			545				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	299	0.014	4	0.0	0.0	12.202	B
B-AD	9	2	115	0.081	9	0.0	0.1	33.922	D
A-BCD	253	63	596	0.425	252	0.6	0.9	10.416	B
A-B	3	1			3				
A-C	702	175			702				
D-AB	291	73	587	0.496	290	0.6	1.0	12.058	B
D-BC	8	2	158	0.054	8	0.0	0.1	23.998	C
C-ABD	0	0	737	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	651	163			651				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	114	0.052	6	0.0	0.1	32.695	D
B-AD	11	3	18	0.582	8	0.1	0.7	316.697	F
A-BCD	409	102	720	0.569	405	0.9	2.0	11.358	B
A-B	4	1			4				
A-C	761	190			761				
D-AB	356	89	523	0.681	352	1.0	2.0	20.542	C
D-BC	10	3	74	0.138	10	0.1	0.2	55.511	F
C-ABD	0	0	618	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	797	199			797				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	2	52	0.121	6	0.1	0.1	77.027	F
B-AD	10	3	15	0.654	9	0.7	1.0	371.377	F
A-BCD	409	102	723	0.566	409	2.0	2.1	11.658	B
A-B	4	1			4				
A-C	761	190			761				
D-AB	356	89	522	0.682	356	2.0	2.1	21.559	C
D-BC	10	3	73	0.142	10	0.2	0.2	57.664	F
C-ABD	0	0	616	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	797	199			797				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	286	0.015	5	0.1	0.0	13.051	B
B-AD	9	2	112	0.084	13	1.0	0.1	37.494	E
A-BCD	253	63	603	0.420	258	2.1	1.0	10.787	B
A-B	3	1			3				
A-C	702	175			702				
D-AB	291	73	586	0.496	295	2.1	1.0	12.548	B
D-BC	8	2	156	0.054	9	0.2	0.1	24.540	C
C-ABD	0	0	734	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	651	163			651				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	369	0.009	3	0.0	0.0	9.874	A
B-AD	8	2	180	0.044	8	0.1	0.0	20.938	C
A-BCD	187	47	561	0.334	189	1.0	0.6	9.794	A
A-B	3	0.72			3				
A-C	612	153			612				
D-AB	244	61	626	0.389	245	1.0	0.6	9.477	A
D-BC	7	2	216	0.033	7	0.1	0.0	17.228	C
C-ABD	0	0	821	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	545	136			545				

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	45.11	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1300	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	720	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1108	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	713	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1377.14	2.2	F	3	4
B-AD	9999999999.00	1484.29	1.1	F	3	4
A-BCD	0.47	9.67	1.4	A	238	357
A-B					4	6
A-C					951	1426
D-AB	1.15	211.35	28.8	F	367	550
D-BC	1.05	346.80	5.2	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					654	981

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	326	0.006	2	0.0	0.0	11.119	B
B-AD	3	0.66	164	0.016	3	0.0	0.0	22.364	C
A-BCD	161	40	565	0.284	159	0.0	0.4	8.841	A
A-B	4	0.92			4				
A-C	815	204			815				
D-AB	301	75	614	0.490	297	0.0	0.9	11.241	B
D-BC	38	9	213	0.178	37	0.0	0.2	20.361	C
C-ABD	0	0	764	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	537	134			537				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	241	0.009	2	0.0	0.0	15.055	C
B-AD	3	0.78	82	0.038	3	0.0	0.0	45.810	E
A-BCD	215	54	600	0.358	214	0.4	0.7	9.312	A
A-B	4	1			4				
A-C	950	237			950				
D-AB	359	90	563	0.638	356	0.9	1.7	17.171	C
D-BC	45	11	148	0.305	44	0.2	0.4	34.381	D
C-ABD	0	0	666	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	641	160			641				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1377.138	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1484.291	F
A-BCD	338	84	713	0.474	335	0.7	1.4	9.537	A
A-B	5	1			5				
A-C	1089	272			1089				
D-AB	440	110	415	1.061	392	1.7	13.8	93.336	F
D-BC	55	14	53	1.045	42	0.4	3.6	242.199	F
C-ABD	0	0	531	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	785	196			785				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	496.293	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	640.598	F
A-BCD	338	84	714	0.473	338	1.4	1.4	9.673	A
A-B	5	1			5				
A-C	1089	272			1089				
D-AB	440	110	385	1.145	380	13.8	28.8	211.353	F
D-BC	55	14	54	1.021	49	3.6	5.2	346.803	F
C-ABD	0	0	530	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	785	196			785				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.63	207	0.012	11	2.2	0.0	19.196	C
B-AD	3	0.72	35	0.082	7	1.1	0.1	138.295	F
A-BCD	215	54	601	0.357	218	1.4	0.7	9.498	A
A-B	4	1			4				
A-C	950	237			950				
D-AB	359	90	533	0.674	465	28.8	2.4	88.395	F
D-BC	45	11	107	0.422	63	5.2	0.8	99.935	F
C-ABD	0	0	664	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	641	160			641				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	324	0.006	2	0.0	0.0	11.172	B
B-AD	3	0.66	160	0.016	3	0.1	0.0	22.950	C
A-BCD	161	40	565	0.284	162	0.7	0.5	8.966	A
A-B	4	0.92			4				
A-C	815	204			815				
D-AB	301	75	611	0.493	306	2.4	1.0	12.036	B
D-BC	38	9	212	0.179	40	0.8	0.2	21.282	C
C-ABD	0	0	762	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	537	134			537				

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.58	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1055	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	724	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	835	216
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	721	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.06	37.71	0.1	E	4	7
B-AD	0.54	341.73	0.8	F	9	14
A-BCD	0.57	11.70	2.1	B	282	423
A-B					3	5
A-C					683	1025
D-AB	0.68	21.32	2.0	C	297	445
D-BC	0.14	55.59	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					662	992

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	373	0.009	3	0.0	0.0	9.732	A
B-AD	8	2	184	0.043	8	0.0	0.0	20.411	C
A-BCD	187	47	558	0.335	185	0.0	0.6	9.594	A
A-B	3	0.72			3				
A-C	605	151			605				
D-AB	244	61	627	0.388	241	0.0	0.6	9.263	A
D-BC	7	2	219	0.032	7	0.0	0.0	16.948	C
C-ABD	0	0	828	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	543	136			543				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	303	0.014	4	0.0	0.0	12.048	B
B-AD	9	2	118	0.079	9	0.0	0.1	33.083	D
A-BCD	252	63	594	0.425	251	0.6	0.9	10.432	B
A-B	3	1			3				
A-C	693	173			693				
D-AB	291	73	588	0.495	290	0.6	1.0	12.018	B
D-BC	8	2	160	0.053	8	0.0	0.1	23.690	C
C-ABD	0	0	742	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	648	162			648				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	137	0.042	6	0.0	0.0	27.044	D
B-AD	11	3	22	0.490	9	0.1	0.6	250.068	F
A-BCD	406	102	715	0.568	402	0.9	2.0	11.396	B
A-B	4	1			4				
A-C	752	188			752				
D-AB	356	89	525	0.679	352	1.0	2.0	20.349	C
D-BC	10	3	77	0.134	10	0.1	0.1	53.659	F
C-ABD	0	0	624	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	794	198			794				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	2	101	0.060	6	0.0	0.1	37.707	E
B-AD	10	3	19	0.540	10	0.6	0.8	341.732	F
A-BCD	406	102	719	0.565	406	2.0	2.1	11.697	B
A-B	4	1			4				
A-C	752	188			752				
D-AB	356	89	524	0.680	356	2.0	2.0	21.323	C
D-BC	10	3	75	0.137	10	0.1	0.2	55.585	F
C-ABD	0	0	622	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	794	198			794				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	294	0.014	4	0.1	0.0	12.634	B
B-AD	9	2	115	0.082	12	0.8	0.1	35.754	E
A-BCD	252	63	601	0.420	257	2.1	1.0	10.801	B
A-B	3	1			3				
A-C	693	173			693				
D-AB	291	73	587	0.495	295	2.0	1.0	12.497	B
D-BC	8	2	158	0.054	9	0.2	0.1	24.182	C
C-ABD	0	0	738	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	648	162			648				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	372	0.009	3	0.0	0.0	9.796	A
B-AD	8	2	182	0.043	8	0.1	0.0	20.672	C
A-BCD	187	47	561	0.333	188	1.0	0.6	9.798	A
A-B	3	0.72			3				
A-C	605	151			605				
D-AB	244	61	627	0.388	245	1.0	0.6	9.460	A
D-BC	7	2	218	0.033	7	0.1	0.0	17.091	C
C-ABD	0	0	825	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	543	136			543				

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	40.49	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1303	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	705	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1111	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	698	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1376.61	2.2	F	3	4
B-AD	9999999999.00	1464.78	1.1	F	3	4
A-BCD	0.47	9.60	1.4	A	236	355
A-B					4	6
A-C					955	1432
D-AB	1.11	184.64	24.9	F	367	550
D-BC	1.02	321.18	4.8	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					640	961

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	327	0.006	2	0.0	0.0	11.076	B
B-AD	3	0.66	165	0.016	3	0.0	0.0	22.191	C
A-BCD	160	40	567	0.283	159	0.0	0.4	8.790	A
A-B	4	0.92			4				
A-C	817	204			817				
D-AB	301	75	617	0.487	297	0.0	0.9	11.120	B
D-BC	38	9	215	0.176	37	0.0	0.2	20.100	C
C-ABD	0	0	763	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	525	131			525				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	243	0.009	2	0.0	0.0	14.945	B
B-AD	3	0.78	83	0.037	3	0.0	0.0	44.892	E
A-BCD	214	54	602	0.356	213	0.4	0.7	9.250	A
A-B	4	1			4				
A-C	953	238			953				
D-AB	359	90	568	0.633	356	0.9	1.6	16.816	C
D-BC	45	11	151	0.299	44	0.2	0.4	33.466	D
C-ABD	0	0	665	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	627	157			627				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1376.613	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1464.784	F
A-BCD	335	84	713	0.470	332	0.7	1.3	9.468	A
A-B	5	1			5				
A-C	1095	274			1095				
D-AB	440	110	425	1.035	398	1.6	12.2	84.255	F
D-BC	55	14	54	1.021	43	0.4	3.5	231.060	F
C-ABD	0	0	530	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	769	192			769				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	495.398	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	612.938	F
A-BCD	335	84	713	0.469	335	1.3	1.4	9.596	A
A-B	5	1			5				
A-C	1095	274			1095				
D-AB	440	110	395	1.114	390	12.2	24.9	184.644	F
D-BC	55	14	56	0.990	50	3.5	4.8	321.180	F
C-ABD	0	0	528	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	769	192			769				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.62	211	0.012	11	2.2	0.0	18.786	C
B-AD	3	0.73	41	0.071	7	1.1	0.1	114.038	F
A-BCD	214	54	603	0.355	217	1.4	0.7	9.426	A
A-B	4	1			4				
A-C	953	238			953				
D-AB	359	90	541	0.664	450	24.9	2.2	66.154	F
D-BC	45	11	119	0.380	62	4.8	0.7	76.105	F
C-ABD	0	0	662	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	627	157			627				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	326	0.006	2	0.0	0.0	11.123	B
B-AD	3	0.66	162	0.016	3	0.1	0.0	22.705	C
A-BCD	160	40	567	0.283	161	0.7	0.5	8.913	A
A-B	4	0.92			4				
A-C	817	204			817				
D-AB	301	75	615	0.489	306	2.2	1.0	11.823	B
D-BC	38	9	214	0.177	40	0.7	0.2	20.854	C
C-ABD	0	0	761	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	525	131			525				

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.34	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1051	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	720	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	831	216
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	717	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.05	32.14	0.1	D	4	7
B-AD	0.50	296.73	0.7	F	9	14
A-BCD	0.57	11.68	2.1	B	281	421
A-B					3	5
A-C					680	1020
D-AB	0.68	21.10	2.0	C	297	445
D-BC	0.13	54.24	0.1	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					658	987

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	375	0.009	3	0.0	0.0	9.699	A
B-AD	8	2	185	0.042	8	0.0	0.0	20.278	C
A-BCD	187	47	558	0.334	184	0.0	0.6	9.585	A
A-B	3	0.72			3				
A-C	602	150			602				
D-AB	244	61	628	0.388	241	0.0	0.6	9.240	A
D-BC	7	2	220	0.032	7	0.0	0.0	16.859	C
C-ABD	0	0	829	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	540	135			540				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	304	0.014	4	0.0	0.0	11.976	B
B-AD	9	2	119	0.078	9	0.0	0.1	32.675	D
A-BCD	252	63	594	0.424	250	0.6	0.9	10.424	B
A-B	3	1			3				
A-C	690	172			690				
D-AB	291	73	589	0.494	290	0.6	1.0	11.972	B
D-BC	8	2	162	0.052	8	0.0	0.1	23.485	C
C-ABD	0	0	744	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	645	161			645				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	146	0.039	6	0.0	0.0	25.337	D
B-AD	11	3	24	0.454	9	0.1	0.6	225.351	F
A-BCD	404	101	714	0.566	400	0.9	2.0	11.391	B
A-B	4	1			4				
A-C	750	187			750				
D-AB	356	89	527	0.676	352	1.0	2.0	20.157	C
D-BC	10	3	78	0.132	10	0.1	0.1	52.434	F
C-ABD	0	0	626	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	789	197			789				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	118	0.051	6	0.0	0.1	32.137	D
B-AD	11	3	21	0.496	10	0.6	0.7	296.729	F
A-BCD	404	101	717	0.563	404	2.0	2.1	11.684	B
A-B	4	1			4				
A-C	750	187			750				
D-AB	356	89	526	0.677	356	2.0	2.0	21.098	C
D-BC	10	3	77	0.134	10	0.1	0.1	54.241	F
C-ABD	0	0	624	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	789	197			789				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	297	0.014	4	0.1	0.0	12.490	B
B-AD	9	2	116	0.081	12	0.7	0.1	35.024	E
A-BCD	252	63	601	0.419	256	2.1	1.0	10.787	B
A-B	3	1			3				
A-C	690	172			690				
D-AB	291	73	588	0.494	295	2.0	1.0	12.437	B
D-BC	8	2	159	0.053	9	0.1	0.1	23.958	C
C-ABD	0	0	740	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	645	161			645				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	373	0.009	3	0.0	0.0	9.759	A
B-AD	8	2	183	0.043	8	0.1	0.0	20.539	C
A-BCD	187	47	561	0.333	188	1.0	0.6	9.785	A
A-B	3	0.72			3				
A-C	602	150			602				
D-AB	244	61	628	0.388	245	1.0	0.6	9.434	A
D-BC	7	2	219	0.033	7	0.1	0.0	17.001	C
C-ABD	0	0	827	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	540	135			540				

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	39.50	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1296	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	705	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1104	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	698	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1376.27	2.2	F	3	4
B-AD	9999999999.00	1457.68	1.1	F	3	4
A-BCD	0.47	9.62	1.4	A	236	354
A-B					4	6
A-C					949	1423
D-AB	1.11	178.55	24.0	F	367	550
D-BC	1.02	315.53	4.7	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					640	961

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	329	0.006	2	0.0	0.0	11.019	B
B-AD	3	0.66	166	0.016	3	0.0	0.0	22.014	C
A-BCD	160	40	566	0.283	158	0.0	0.4	8.797	A
A-B	4	0.92			4				
A-C	812	203			812				
D-AB	301	75	617	0.487	297	0.0	0.9	11.117	B
D-BC	38	9	216	0.176	37	0.0	0.2	20.014	C
C-ABD	0	0	765	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	525	131			525				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	245	0.009	2	0.0	0.0	14.811	B
B-AD	3	0.78	85	0.037	3	0.0	0.0	43.946	E
A-BCD	214	53	601	0.356	213	0.4	0.7	9.263	A
A-B	4	1			4				
A-C	947	237			947				
D-AB	359	90	568	0.633	356	0.9	1.6	16.794	C
D-BC	45	11	152	0.298	44	0.2	0.4	33.216	D
C-ABD	0	0	668	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	627	157			627				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1376.268	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1457.679	F
A-BCD	334	83	711	0.470	331	0.7	1.3	9.491	A
A-B	5	1			5				
A-C	1088	272			1088				
D-AB	440	110	428	1.029	399	1.6	11.9	82.262	F
D-BC	55	14	54	1.015	43	0.4	3.4	228.301	F
C-ABD	0	0	533	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	769	192			769				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	494.810	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	602.879	F
A-BCD	334	83	712	0.469	334	1.3	1.4	9.617	A
A-B	5	1			5				
A-C	1088	272			1088				
D-AB	440	110	398	1.106	392	11.9	24.0	178.549	F
D-BC	55	14	56	0.982	50	3.4	4.7	315.532	F
C-ABD	0	0	532	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	769	192			769				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.62	214	0.012	11	2.2	0.0	18.519	C
B-AD	3	0.73	44	0.067	7	1.1	0.1	105.554	F
A-BCD	214	53	602	0.355	216	1.4	0.7	9.439	A
A-B	4	1			4				
A-C	947	237			947				
D-AB	359	90	542	0.662	447	24.0	2.2	62.062	F
D-BC	45	11	122	0.372	62	4.7	0.7	72.224	F
C-ABD	0	0	665	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	627	157			627				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	327	0.006	2	0.0	0.0	11.064	B
B-AD	3	0.66	163	0.016	3	0.1	0.0	22.505	C
A-BCD	160	40	567	0.283	161	0.7	0.5	8.919	A
A-B	4	0.92			4				
A-C	812	203			812				
D-AB	301	75	615	0.489	306	2.2	1.0	11.808	B
D-BC	38	9	215	0.177	40	0.7	0.2	20.744	C
C-ABD	0	0	764	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	525	131			525				

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.15	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1043	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	722	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	4	823	216
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	719	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	1
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.04	28.32	0.0	D	4	7
B-AD	0.45	256.02	0.6	F	9	14
A-BCD	0.57	11.75	2.1	B	280	420
A-B					3	5
A-C					674	1010
D-AB	0.68	21.02	2.0	C	296	444
D-BC	0.13	53.61	0.1	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					660	990

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	376	0.009	3	0.0	0.0	9.657	A
B-AD	8	2	186	0.042	8	0.0	0.0	20.129	C
A-BCD	186	47	557	0.334	184	0.0	0.6	9.604	A
A-B	3	0.72			3				
A-C	596	149			596				
D-AB	243	61	628	0.387	240	0.0	0.6	9.233	A
D-BC	7	2	221	0.032	7	0.0	0.0	16.817	C
C-ABD	0	0	832	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	541	135			541				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	307	0.014	4	0.0	0.0	11.894	B
B-AD	9	2	121	0.077	9	0.0	0.1	32.207	D
A-BCD	251	63	592	0.424	250	0.6	0.9	10.457	B
A-B	3	1			3				
A-C	683	171			683				
D-AB	290	72	588	0.493	289	0.6	0.9	11.957	B
D-BC	8	2	162	0.052	8	0.0	0.1	23.386	C
C-ABD	0	0	747	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	646	162			646				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	155	0.036	6	0.0	0.0	23.839	C
B-AD	11	3	26	0.418	9	0.1	0.5	201.404	F
A-BCD	403	101	711	0.567	399	0.9	2.0	11.448	B
A-B	4	1			4				
A-C	742	185			742				
D-AB	355	89	527	0.675	351	0.9	1.9	20.091	C
D-BC	10	3	79	0.130	10	0.1	0.1	51.850	F
C-ABD	0	0	630	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	792	198			792				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	133	0.044	6	0.0	0.0	28.319	D
B-AD	11	3	24	0.453	10	0.5	0.6	256.022	F
A-BCD	403	101	715	0.564	403	2.0	2.1	11.746	B
A-B	4	1			4				
A-C	742	185			742				
D-AB	355	89	526	0.676	355	1.9	2.0	21.015	C
D-BC	10	3	77	0.133	10	0.1	0.1	53.606	F
C-ABD	0	0	628	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	792	198			792				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	300	0.014	4	0.0	0.0	12.348	B
B-AD	9	2	118	0.079	12	0.6	0.1	34.272	D
A-BCD	251	63	599	0.419	256	2.1	1.0	10.822	B
A-B	3	1			3				
A-C	683	171			683				
D-AB	290	72	588	0.493	294	2.0	1.0	12.419	B
D-BC	8	2	160	0.053	9	0.1	0.1	23.847	C
C-ABD	0	0	743	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	646	162			646				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	375	0.009	3	0.0	0.0	9.715	A
B-AD	8	2	185	0.043	8	0.1	0.0	20.386	C
A-BCD	186	47	560	0.333	188	1.0	0.6	9.805	A
A-B	3	0.72			3				
A-C	596	149			596				
D-AB	243	61	628	0.387	244	1.0	0.6	9.428	A
D-BC	7	2	220	0.032	7	0.1	0.0	16.956	C
C-ABD	0	0	830	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	541	135			541				

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	36.54	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1291	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	697	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1099	187
	B - Chanctonbury Ring Road	2	0	1	3
	C - A283 West	690	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	2	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1375.78	2.2	F	3	4
B-AD	9999999999.00	1446.04	1.1	F	3	4
A-BCD	0.47	9.60	1.4	A	235	352
A-B					4	6
A-C					945	1418
D-AB	1.08	161.16	21.4	F	367	550
D-BC	1.00	299.62	4.5	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					633	950

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	331	0.006	2	0.0	0.0	10.944	B
B-AD	3	0.66	168	0.016	3	0.0	0.0	21.766	C
A-BCD	160	40	567	0.282	158	0.0	0.4	8.776	A
A-B	4	0.92			4				
A-C	808	202			808				
D-AB	301	75	619	0.486	297	0.0	0.9	11.049	B
D-BC	38	9	218	0.174	37	0.0	0.2	19.805	C
C-ABD	0	0	767	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	519	130			519				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.57	248	0.009	2	0.0	0.0	14.633	B
B-AD	3	0.78	87	0.036	3	0.0	0.0	42.661	E
A-BCD	213	53	602	0.354	212	0.4	0.7	9.241	A
A-B	4	1			4				
A-C	943	236			943				
D-AB	359	90	571	0.630	356	0.9	1.6	16.589	C
D-BC	45	11	154	0.293	45	0.2	0.4	32.517	D
C-ABD	0	0	670	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	620	155			620				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1375.775	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1446.040	F
A-BCD	332	83	710	0.467	329	0.7	1.3	9.474	A
A-B	5	1			5				
A-C	1085	271			1085				
D-AB	440	110	435	1.012	403	1.6	10.9	76.429	F
D-BC	55	14	55	0.998	44	0.4	3.3	220.707	F
C-ABD	0	0	536	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	760	190			760				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	493.971	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	586.385	F
A-BCD	332	83	710	0.467	331	1.3	1.4	9.600	A
A-B	5	1			5				
A-C	1085	271			1085				
D-AB	440	110	406	1.084	398	10.9	21.4	161.160	F
D-BC	55	14	57	0.961	50	3.3	4.5	299.622	F
C-ABD	0	0	534	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	760	190			760				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.61	218	0.011	11	2.2	0.0	18.139	C
B-AD	3	0.74	49	0.060	7	1.1	0.1	92.012	F
A-BCD	213	53	602	0.354	216	1.4	0.7	9.415	A
A-B	4	1			4				
A-C	943	236			943				
D-AB	359	90	547	0.657	437	21.4	2.1	50.936	F
D-BC	45	11	129	0.351	61	4.5	0.6	62.662	F
C-ABD	0	0	668	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	620	155			620				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	2	0.47	330	0.006	2	0.0	0.0	10.986	B
B-AD	3	0.66	165	0.016	3	0.1	0.0	22.213	C
A-BCD	160	40	567	0.282	161	0.7	0.5	8.897	A
A-B	4	0.92			4				
A-C	808	202			808				
D-AB	301	75	617	0.487	305	2.1	1.0	11.699	B
D-BC	38	9	217	0.175	39	0.6	0.2	20.458	C
C-ABD	0	0	765	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	519	130			519				

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham Water Lane Crossroads**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
Water Lane Crossroads	**DATE:**	**11.11.21**
	DRG:	**5201-GP-04A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	1000.00	1,000.00
1.02	REMOVE CONCRETE KERBS	11.00	m	15.00	165.00
1.03	REMOVE EDGING KERB	0.00	m	3.00	0.00
1.04	REMOVE LIGHTING COLUMNS	0.00	ITEM	750.00	0.00
1.05	REMOVE GULLIES	0.00	No	450.00	0.00
1.06	REMOVE TRAFFIC SIGNS	1.00	No	350.00	350.00
1.07	REMOVE BOLLARDS	0.00	No	250.00	0.00
					1,515.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	10.00	Cum	22.00	220.00
2.02	EXCAVATE HARD AND DISPOSE	10.00	Cum	55.00	550.00
2.03	DISPOSE U/S	10.00	Cum	50.00	500.00
2.04	FORMATION AND SUB-FORMATION	15.00	Sqm	1.20	18.00
2.05	PLANE CARRIAGEWAY (40mm)	388.00	Sqm	3.50	1,358.00
2.06	PLANE FOOTWAY (20mm)	0.00	Sqm	2.50	0.00
2.07	IMPORT CAPPING AND COMPACT	5.00	Cum	18.00	90.00
					2,736.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	4.00	Cum	25.00	100.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	15.00	Sqm	22.00	330.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	15.00	Sqm	24.00	360.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	403.00	Sqm	18.00	7,254.00
3.05	CONCRETE KERBING	24.00	m	20.00	480.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	0.00	m	12.00	0.00
3.08	SUB BASE - FOOTWAY(150mm)	0.00	Cum	18.00	0.00
3.09	FOOTWAY SURFACE COURSE (20mm)	0.00	Sqm	8.00	0.00
3.10	FOOTWAY BINDER COURSE (50mm)	0.00	Sqm	11.00	0.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	0.00	Sqm	30.00	0.00
					8,524.00

APPENDIX 2.5
BUDGET COST ESTIMATE FOR
OFF-SITE HIGHWAY WORKS

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	0.00	No	600.00	0.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	0.00	No	500.00	0.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					0.00
5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	1000.00	1000.00
5.02	BOLLARDS	0.00	No	600.00	0.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	1.00	No	750.00	750.00
					0.00
					1,750.00
7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	2000.00	2,000.00
7.02	STREET LIGHTING COLUMN	0.00	No.	1800.00	0.00
7.03	LIGHTING DUCTING	0.00	m	20.00	0.00
7.04	TOPSOIL & SEED	0.00	Sqm	12.50	0.00
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	0.00	No	2000.00	0.00
					2,000.00

	SUMMARY	
	Preliminaries 15%	£2,178.75
1.0	Site Clearance	£1,515.00
2.0	Earthworks	£2,736.00
3.0	Pavement	£8,524.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£1,750.00
6.0	Other	£2,000.00
		£18,704

CONTINGENCY 10%	£1,870
CIVILS TOTAL	£20,574

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE JUNCTION WILL BE RESURFACED

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

3.0 Junction 3 – A283 / Maudlin Lane / Clays Hill / Castle Lane / The Street Roundabout

3.1 ARCADY Output: 2033 Baseline Scenario
3.2 ARCADY Outputs: Proposed Development Scenarios
3.3 Proposed Junction Improvements
3.4 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
3.5 Budget Cost Estimate for Off-Site Highway Works

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 3 - A - A283 Steyning - Existing Junction - 2033 Base incl permitted.j9
Path: D:\5201 Shoreham\Amol\3 - A283 + Clays Hill + The Street
Report generation date: 11/11/2021 11:56:54

»2033 Base including permitted, AM
»2033 Base including permitted, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Base including permitted													
1 - A283 South	50.7	129.38	1.06	F	70.23	F	-12 % [1 - A283 South]	166.0	458.37	1.24	F	220.24	F	-23 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.60	0.04	A				0.0	8.17	0.04	A			
3 - Clays Hill	8.1	47.72	0.91	E				1.2	11.22	0.55	B			
4 - A283 North	6.3	25.42	0.87	D				6.7	22.94	0.88	C			
5 - Castle Lane	0.5	15.83	0.34	C				0.2	10.28	0.15	B			
6 - The Street	0.5	7.99	0.33	A				0.5	7.35	0.34	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

APPENDIX 3.1
ARCADY OUTPUT: 2033 BASELINE SCENARIO

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base including permitted, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	70.23	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	1 - A283 South

Arms

Arms

Arm	Name	Description
1	A283 South	
2	Maudlin Lane	
3	Clays Hill	
4	A283 North	
5	Castle Lane	
6	The Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 South	3.70	6.70	8.0	9.3	49.0	31.0	
2 - Maudlin Lane	3.10	5.00	6.8	35.5	49.0	19.0	
3 - Clays Hill	3.80	6.50	3.5	10.3	49.0	27.0	
4 - A283 North	4.40	7.20	2.6	17.8	49.0	25.0	
5 - Castle Lane	2.20	5.60	12.7	9.8	49.0	33.0	
6 - The Street	3.90	6.50	7.0	14.1	49.0	27.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 South	0.547	1443
2 - Maudlin Lane	0.557	1317
3 - Clays Hill	0.533	1338
4 - A283 North	0.586	1541
5 - Castle Lane	0.490	1147
6 - The Street	0.577	1526

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1180	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	593	100.000
4 - A283 North		ONE HOUR	✓	852	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	292	864	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	412	0	0	53	3	125
	4 - A283 North	756	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	4	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.06	129.38	50.7	F	1083	1624
2 - Maudlin Lane	0.04	8.60	0.0	A	15	22
3 - Clays Hill	0.91	47.72	8.1	E	544	816
4 - A283 North	0.87	25.42	6.3	D	782	1173
5 - Castle Lane	0.34	15.83	0.5	C	98	147
6 - The Street	0.33	7.99	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	888	222	174	1267	0.701	879	932	0.0	2.3	9.091	A
2 - Maudlin Lane	12	3	1041	665	0.018	12	12	0.0	0.0	5.515	A
3 - Clays Hill	446	112	768	884	0.505	442	285	0.0	1.0	8.085	A
4 - A283 North	641	160	438	1183	0.542	637	772	0.0	1.2	6.538	A
5 - Castle Lane	81	20	1053	596	0.135	80	22	0.0	0.2	6.963	A
6 - The Street	150	37	957	942	0.159	149	176	0.0	0.2	4.535	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1061	265	208	1249	0.849	1050	1116	2.3	5.0	17.165	C
2 - Maudlin Lane	14	4	1244	553	0.026	14	14	0.0	0.0	6.685	A
3 - Clays Hill	533	133	917	800	0.666	529	340	1.0	1.9	13.114	B
4 - A283 North	766	191	524	1136	0.674	763	923	1.2	2.0	9.563	A
5 - Castle Lane	96	24	1261	490	0.196	96	26	0.2	0.2	9.125	A
6 - The Street	179	45	1146	827	0.216	179	211	0.2	0.3	5.550	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1299	325	254	1225	1.060	1198	1348	5.0	30.3	65.136	F
2 - Maudlin Lane	18	4	1435	448	0.039	18	17	0.0	0.0	8.372	A
3 - Clays Hill	653	163	1058	722	0.904	634	395	1.9	6.6	35.157	E
4 - A283 North	938	235	627	1079	0.869	924	1064	2.0	5.6	21.411	C
5 - Castle Lane	118	29	1520	357	0.330	117	31	0.2	0.5	14.925	B
6 - The Street	219	55	1383	682	0.321	218	254	0.3	0.5	7.753	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1299	325	255	1225	1.061	1217	1368	30.3	50.7	129.381	F
2 - Maudlin Lane	18	4	1455	436	0.040	18	17	0.0	0.0	8.601	A
3 - Clays Hill	653	163	1073	714	0.915	647	400	6.6	8.1	47.723	E
4 - A283 North	938	235	640	1072	0.875	936	1080	5.6	6.3	25.425	D
5 - Castle Lane	118	29	1544	345	0.342	118	31	0.5	0.5	15.832	C
6 - The Street	219	55	1404	669	0.327	219	258	0.5	0.5	7.995	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1061	265	210	1248	0.850	1226	1151	50.7	9.4	95.347	F
2 - Maudlin Lane	14	4	1421	454	0.032	14	15	0.0	0.0	8.195	A
3 - Clays Hill	533	133	1051	725	0.735	553	385	8.1	3.0	23.004	C
4 - A283 North	766	191	549	1122	0.683	782	1055	6.3	2.2	11.059	B
5 - Castle Lane	96	24	1303	469	0.205	97	28	0.5	0.3	9.720	A
6 - The Street	179	45	1181	805	0.222	180	219	0.5	0.3	5.759	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	888	222	175	1266	0.702	916	949	9.4	2.4	11.050	B
2 - Maudlin Lane	12	3	1079	643	0.019	12	12	0.0	0.0	5.704	A
3 - Clays Hill	446	112	797	868	0.514	454	295	3.0	1.1	8.857	A
4 - A283 North	641	160	449	1177	0.545	645	801	2.2	1.2	6.827	A
5 - Castle Lane	81	20	1073	586	0.137	81	22	0.3	0.2	7.130	A
6 - The Street	150	37	974	932	0.161	150	180	0.3	0.2	4.608	A

2033 Base including permitted, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	220.24	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1423	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	351	100.000
4 - A283 North		ONE HOUR	✓	1002	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	300	1047	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	231	2	0	26	3	89
	4 - A283 North	871	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.24	458.37	166.0	F	1306	1959
2 - Maudlin Lane	0.04	8.17	0.0	A	15	22
3 - Clays Hill	0.55	11.22	1.2	B	322	483
4 - A283 North	0.88	22.94	6.7	C	919	1379
5 - Castle Lane	0.15	10.28	0.2	B	52	78
6 - The Street	0.34	7.35	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1071	268	200	1320	0.812	1055	862	0.0	4.0	12.927	B
2 - Maudlin Lane	12	3	1228	625	0.019	12	27	0.0	0.0	5.869	A
3 - Clays Hill	264	66	933	822	0.322	262	307	0.0	0.5	6.418	A
4 - A283 North	754	189	308	1331	0.567	749	888	0.0	1.3	6.136	A
5 - Castle Lane	43	11	1000	647	0.066	43	57	0.0	0.1	5.952	A
6 - The Street	173	43	890	984	0.176	172	153	0.0	0.2	4.431	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1279	320	240	1298	0.986	1232	1032	4.0	15.7	39.243	E
2 - Maudlin Lane	14	4	1440	506	0.028	14	32	0.0	0.0	7.319	A
3 - Clays Hill	316	79	1093	737	0.428	314	361	0.5	0.7	8.498	A
4 - A283 North	901	225	367	1296	0.695	897	1040	1.3	2.2	8.939	A
5 - Castle Lane	51	13	1198	549	0.093	51	66	0.1	0.1	7.235	A
6 - The Street	207	52	1066	883	0.234	206	183	0.2	0.3	5.322	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1567	392	293	1268	1.235	1265	1254	15.7	91.1	161.255	F
2 - Maudlin Lane	18	4	1521	460	0.038	18	37	0.0	0.0	8.132	A
3 - Clays Hill	386	97	1148	708	0.546	385	390	0.7	1.2	11.072	B
4 - A283 North	1103	276	438	1255	0.879	1087	1094	2.2	6.2	19.882	C
5 - Castle Lane	63	16	1454	421	0.149	62	72	0.1	0.2	10.041	B
6 - The Street	253	63	1294	751	0.337	252	222	0.3	0.5	7.210	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1567	392	294	1268	1.236	1267	1267	91.1	166.0	369.003	F
2 - Maudlin Lane	18	4	1524	458	0.038	18	37	0.0	0.0	8.167	A
3 - Clays Hill	386	97	1150	707	0.547	386	392	1.2	1.2	11.224	B
4 - A283 North	1103	276	440	1254	0.880	1101	1096	6.2	6.7	22.942	C
5 - Castle Lane	63	16	1469	413	0.152	63	72	0.2	0.2	10.276	B
6 - The Street	253	63	1308	743	0.341	253	224	0.5	0.5	7.351	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1279	320	242	1297	0.987	1289	1053	166.0	163.6	458.370	F
2 - Maudlin Lane	14	4	1498	474	0.030	14	33	0.0	0.0	7.841	A
3 - Clays Hill	316	79	1138	713	0.442	317	374	1.2	0.8	9.124	A
4 - A283 North	901	225	372	1293	0.697	918	1083	6.7	2.4	10.004	B
5 - Castle Lane	51	13	1221	537	0.095	52	69	0.2	0.1	7.424	A
6 - The Street	207	52	1087	870	0.238	208	186	0.5	0.3	5.437	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1071	268	202	1319	0.812	1311	872	163.6	103.7	368.085	F
2 - Maudlin Lane	12	3	1483	482	0.025	12	29	0.0	0.0	7.660	A
3 - Clays Hill	264	66	1134	715	0.369	265	362	0.8	0.6	8.010	A
4 - A283 North	754	189	322	1323	0.570	758	1077	2.4	1.3	6.425	A
5 - Castle Lane	43	11	1014	641	0.067	43	67	0.1	0.1	6.026	A
6 - The Street	173	43	900	978	0.177	174	156	0.3	0.2	4.480	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 3 - B - A283 Steyning - Existing Junction - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\3 - A283 + Clays Hill + The Street
Report generation date: 11/11/2021 11:58:36

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 3.2
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A283 South	71.8	173.80	1.10	F	91.25	F	-14 % [1 - A283 South]	184.3	510.69	1.26	F	245.95	F	-24 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.65	0.04	A				0.0	8.17	0.04	A			
3 - Clays Hill	9.0	52.76	0.93	F				1.3	11.55	0.56	B			
4 - A283 North	7.5	29.96	0.90	D				7.0	24.11	0.89	C			
5 - Castle Lane	0.5	16.84	0.36	C				0.2	10.46	0.15	B			
6 - The Street	0.5	8.30	0.34	A				0.5	7.46	0.34	A			
Scenario 2 Total														
1 - A283 South	65.5	160.37	1.09	F	85.06	F	-14 % [1 - A283 South]	189.4	523.48	1.26	F	252.29	F	-24 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.64	0.04	A				0.0	8.17	0.04	A			
3 - Clays Hill	8.8	51.56	0.92	F				1.2	11.38	0.55	B			
4 - A283 North	7.3	29.26	0.89	D				7.6	26.03	0.90	D			
5 - Castle Lane	0.5	16.69	0.35	C				0.2	10.62	0.16	B			
6 - The Street	0.5	8.26	0.33	A				0.5	7.56	0.35	A			
Scenario 3 Total														
1 - A283 South	63.5	156.33	1.08	F	82.82	F	-13 % [1 - A283 South]	179.2	497.98	1.25	F	239.56	F	-23 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.63	0.04	A				0.0	8.17	0.04	A			
3 - Clays Hill	8.5	50.06	0.92	F				1.2	11.40	0.55	B			
4 - A283 North	7.0	28.27	0.89	D				7.7	26.07	0.90	D			
5 - Castle Lane	0.5	16.47	0.35	C				0.2	10.62	0.16	B			
6 - The Street	0.5	8.19	0.33	A				0.5	7.56	0.35	A			
Scenario 4 Total														
1 - A283 South	57.9	144.42	1.07	F	77.97	F	-13 % [1 - A283 South]	173.8	483.28	1.25	F	232.39	F	-23 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.62	0.04	A				0.0	8.17	0.04	A			
3 - Clays Hill	8.7	50.86	0.92	F				1.2	11.33	0.55	B			
4 - A283 North	7.2	28.68	0.89	D				7.2	24.54	0.89	C			
5 - Castle Lane	0.5	16.58	0.35	C				0.2	10.46	0.15	B			
6 - The Street	0.5	8.22	0.33	A				0.5	7.46	0.34	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	91.25	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A283 South

Arms

Arms

Arm	Name	Description
1	A283 South	
2	Maudlin Lane	
3	Clays Hill	
4	A283 North	
5	Castle Lane	
6	The Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 South	3.70	6.70	8.0	9.3	49.0	31.0	
2 - Maudlin Lane	3.10	5.00	6.8	35.5	49.0	19.0	
3 - Clays Hill	3.80	6.50	3.5	10.3	49.0	27.0	
4 - A283 North	4.40	7.20	2.6	17.8	49.0	25.0	
5 - Castle Lane	2.20	5.60	12.7	9.8	49.0	33.0	
6 - The Street	3.90	6.50	7.0	14.1	49.0	27.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 South	0.547	1443
2 - Maudlin Lane	0.557	1317
3 - Clays Hill	0.533	1338
4 - A283 North	0.586	1541
5 - Castle Lane	0.490	1147
6 - The Street	0.577	1526

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1225	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	599	100.000
4 - A283 North		ONE HOUR	✓	874	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	301	900	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	418	0	0	53	3	125
	4 - A283 North	778	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.10	173.80	71.8	F	1124	1686
2 - Maudlin Lane	0.04	8.65	0.0	A	15	22
3 - Clays Hill	0.93	52.76	9.0	F	550	824
4 - A283 North	0.90	29.96	7.5	D	802	1203
5 - Castle Lane	0.36	16.84	0.5	C	98	147
6 - The Street	0.34	8.30	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	922	231	174	1270	0.726	912	953	0.0	2.5	9.805	A
2 - Maudlin Lane	12	3	1074	648	0.019	12	12	0.0	0.0	5.663	A
3 - Clays Hill	451	113	794	870	0.518	447	291	0.0	1.1	8.417	A
4 - A283 North	658	164	442	1183	0.556	653	799	0.0	1.2	6.730	A
5 - Castle Lane	81	20	1074	586	0.137	80	22	0.0	0.2	7.099	A
6 - The Street	150	37	978	930	0.161	149	176	0.0	0.2	4.604	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1101	275	208	1252	0.880	1087	1141	2.5	6.2	20.176	C
2 - Maudlin Lane	14	4	1280	534	0.027	14	14	0.0	0.0	6.932	A
3 - Clays Hill	538	135	947	785	0.686	534	348	1.1	2.1	14.128	B
4 - A283 North	786	196	529	1135	0.692	782	952	1.2	2.2	10.075	B
5 - Castle Lane	96	24	1285	478	0.201	96	26	0.2	0.2	9.403	A
6 - The Street	179	45	1170	813	0.220	179	211	0.2	0.3	5.672	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1349	337	254	1228	1.098	1211	1374	6.2	40.7	81.427	F
2 - Maudlin Lane	18	4	1448	442	0.040	18	17	0.0	0.0	8.480	A
3 - Clays Hill	660	165	1069	717	0.920	638	396	2.1	7.4	38.268	E
4 - A283 North	962	241	631	1079	0.892	945	1076	2.2	6.6	24.108	C
5 - Castle Lane	118	29	1546	345	0.341	117	30	0.2	0.5	15.701	C
6 - The Street	219	55	1409	667	0.328	218	253	0.3	0.5	8.007	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1349	337	255	1228	1.099	1224	1397	40.7	71.8	173.801	F
2 - Maudlin Lane	18	4	1462	434	0.041	18	17	0.0	0.0	8.647	A
3 - Clays Hill	660	165	1080	711	0.927	653	400	7.4	9.0	52.761	F
4 - A283 North	962	241	645	1072	0.898	959	1088	6.6	7.5	29.964	D
5 - Castle Lane	118	29	1573	331	0.356	118	31	0.5	0.5	16.838	C
6 - The Street	219	55	1433	653	0.336	219	257	0.5	0.5	8.296	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1101	275	210	1251	0.880	1234	1182	71.8	38.7	163.525	F
2 - Maudlin Lane	14	4	1429	451	0.032	14	15	0.0	0.0	8.244	A
3 - Clays Hill	538	135	1058	722	0.745	562	385	9.0	3.2	25.027	D
4 - A283 North	786	196	557	1120	0.701	806	1064	7.5	2.4	12.134	B
5 - Castle Lane	96	24	1335	453	0.212	97	28	0.5	0.3	10.149	B
6 - The Street	179	45	1213	787	0.227	180	220	0.5	0.3	5.931	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	922	231	175	1269	0.727	1066	970	38.7	2.8	30.953	D
2 - Maudlin Lane	12	3	1228	562	0.021	12	13	0.0	0.0	6.551	A
3 - Clays Hill	451	113	911	805	0.560	458	330	3.2	1.3	10.603	B
4 - A283 North	658	164	456	1176	0.560	663	913	2.4	1.3	7.074	A
5 - Castle Lane	81	20	1095	576	0.140	81	23	0.3	0.2	7.282	A
6 - The Street	150	37	995	920	0.163	150	181	0.3	0.2	4.680	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	245.95	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1448	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	360	100.000
4 - A283 North		ONE HOUR	✓	1005	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	307	1065	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	240	2	0	26	3	89
	4 - A283 North	874	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.26	510.69	184.3	F	1329	1993
2 - Maudlin Lane	0.04	8.17	0.0	A	15	22
3 - Clays Hill	0.56	11.55	1.3	B	330	496
4 - A283 North	0.89	24.11	7.0	C	922	1383
5 - Castle Lane	0.15	10.46	0.2	B	52	78
6 - The Street	0.34	7.46	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	273	200	1320	0.826	1073	871	0.0	4.3	13.730	B
2 - Maudlin Lane	12	3	1246	616	0.020	12	27	0.0	0.0	5.963	A
3 - Clays Hill	271	68	946	815	0.332	269	312	0.0	0.5	6.565	A
4 - A283 North	757	189	314	1327	0.570	751	901	0.0	1.3	6.197	A
5 - Castle Lane	43	11	1009	643	0.067	43	56	0.0	0.1	5.995	A
6 - The Street	173	43	899	979	0.177	172	153	0.0	0.2	4.459	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1302	325	239	1298	1.003	1244	1043	4.3	18.7	44.308	E
2 - Maudlin Lane	14	4	1452	499	0.029	14	32	0.0	0.0	7.421	A
3 - Clays Hill	324	81	1101	733	0.442	322	365	0.5	0.8	8.744	A
4 - A283 North	903	226	375	1292	0.699	900	1049	1.3	2.3	9.090	A
5 - Castle Lane	51	13	1208	543	0.094	51	66	0.1	0.1	7.311	A
6 - The Street	207	52	1076	877	0.236	206	183	0.2	0.3	5.370	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1594	399	292	1269	1.257	1266	1266	18.7	100.7	178.471	F
2 - Maudlin Lane	18	4	1522	460	0.038	18	37	0.0	0.0	8.142	A
3 - Clays Hill	396	99	1147	709	0.559	395	392	0.8	1.2	11.389	B
4 - A283 North	1107	277	447	1250	0.886	1090	1095	2.3	6.4	20.649	C
5 - Castle Lane	63	16	1466	415	0.151	62	71	0.1	0.2	10.209	B
6 - The Street	253	63	1307	744	0.340	252	222	0.3	0.5	7.312	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1594	399	294	1268	1.257	1268	1280	100.7	182.4	405.057	F
2 - Maudlin Lane	18	4	1524	458	0.038	18	37	0.0	0.0	8.169	A
3 - Clays Hill	396	99	1149	708	0.560	396	393	1.2	1.3	11.546	B
4 - A283 North	1107	277	449	1249	0.886	1104	1096	6.4	7.0	24.106	C
5 - Castle Lane	63	16	1482	407	0.154	63	71	0.2	0.2	10.463	B
6 - The Street	253	63	1321	736	0.344	253	224	0.5	0.5	7.463	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1302	325	242	1297	1.004	1294	1065	182.4	184.3	510.693	F
2 - Maudlin Lane	14	4	1503	471	0.031	14	33	0.0	0.0	7.891	A
3 - Clays Hill	324	81	1141	712	0.455	325	377	1.3	0.8	9.346	A
4 - A283 North	903	226	380	1289	0.701	922	1086	7.0	2.4	10.259	B
5 - Castle Lane	51	13	1233	531	0.097	52	68	0.2	0.1	7.514	A
6 - The Street	207	52	1099	864	0.239	208	186	0.5	0.3	5.495	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	273	202	1319	0.826	1312	882	184.3	128.8	430.297	F
2 - Maudlin Lane	12	3	1485	482	0.025	12	29	0.0	0.0	7.670	A
3 - Clays Hill	271	68	1133	716	0.379	272	364	0.8	0.6	8.125	A
4 - A283 North	757	189	328	1319	0.573	761	1077	2.4	1.4	6.495	A
5 - Castle Lane	43	11	1023	636	0.067	43	66	0.1	0.1	6.073	A
6 - The Street	173	43	910	972	0.178	174	156	0.3	0.2	4.508	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	85.06	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1212	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	598	100.000
4 - A283 North		ONE HOUR	✓	871	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	299	889	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	417	0	0	53	3	125
	4 - A283 North	775	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.09	160.37	65.5	F	1112	1668
2 - Maudlin Lane	0.04	8.64	0.0	A	15	22
3 - Clays Hill	0.92	51.56	8.8	F	549	823
4 - A283 North	0.89	29.26	7.3	D	799	1199
5 - Castle Lane	0.35	16.69	0.5	C	98	147
6 - The Street	0.33	8.26	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	912	228	174	1269	0.719	903	950	0.0	2.5	9.587	A
2 - Maudlin Lane	12	3	1064	653	0.018	12	12	0.0	0.0	5.620	A
3 - Clays Hill	450	113	786	875	0.515	446	290	0.0	1.0	8.324	A
4 - A283 North	656	164	442	1183	0.554	651	791	0.0	1.2	6.703	A
5 - Castle Lane	81	20	1071	588	0.137	80	22	0.0	0.2	7.079	A
6 - The Street	150	37	975	932	0.161	149	176	0.0	0.2	4.594	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	272	208	1251	0.871	1076	1137	2.5	5.8	19.219	C
2 - Maudlin Lane	14	4	1270	539	0.027	14	14	0.0	0.0	6.859	A
3 - Clays Hill	538	134	938	790	0.681	534	346	1.0	2.0	13.841	B
4 - A283 North	783	196	528	1136	0.690	779	943	1.2	2.1	9.997	A
5 - Castle Lane	96	24	1282	480	0.200	96	26	0.2	0.2	9.363	A
6 - The Street	179	45	1167	815	0.220	179	211	0.2	0.3	5.654	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1334	334	254	1227	1.087	1208	1370	5.8	37.5	76.462	F
2 - Maudlin Lane	18	4	1445	443	0.040	18	17	0.0	0.0	8.453	A
3 - Clays Hill	658	165	1066	719	0.916	638	396	2.0	7.2	37.492	E
4 - A283 North	959	240	631	1079	0.889	942	1073	2.1	6.4	23.711	C
5 - Castle Lane	118	29	1542	347	0.340	117	30	0.2	0.5	15.590	C
6 - The Street	219	55	1406	669	0.327	218	253	0.3	0.5	7.971	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1334	334	255	1227	1.088	1223	1393	37.5	65.5	160.366	F
2 - Maudlin Lane	18	4	1461	434	0.041	18	17	0.0	0.0	8.638	A
3 - Clays Hill	658	165	1078	712	0.925	652	401	7.2	8.8	51.555	F
4 - A283 North	959	240	644	1072	0.895	956	1086	6.4	7.3	29.258	D
5 - Castle Lane	118	29	1569	333	0.354	118	31	0.5	0.5	16.690	C
6 - The Street	219	55	1429	655	0.334	219	258	0.5	0.5	8.255	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	272	210	1250	0.872	1231	1177	65.5	30.0	142.607	F
2 - Maudlin Lane	14	4	1426	452	0.032	14	15	0.0	0.0	8.225	A
3 - Clays Hill	538	134	1055	724	0.743	560	385	8.8	3.1	24.486	C
4 - A283 North	783	196	555	1121	0.699	803	1060	7.3	2.4	11.963	B
5 - Castle Lane	96	24	1330	455	0.211	97	28	0.5	0.3	10.079	B
6 - The Street	179	45	1208	790	0.226	180	220	0.5	0.3	5.907	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	912	228	175	1268	0.720	1022	967	30.0	2.7	21.447	C
2 - Maudlin Lane	12	3	1185	586	0.021	12	12	0.0	0.0	6.278	A
3 - Clays Hill	450	113	877	824	0.547	458	320	3.1	1.2	10.034	B
4 - A283 North	656	164	454	1176	0.557	660	880	2.4	1.3	7.038	A
5 - Castle Lane	81	20	1092	577	0.140	81	23	0.3	0.2	7.262	A
6 - The Street	150	37	992	921	0.163	150	180	0.3	0.2	4.671	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	252.29	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1454	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	356	100.000
4 - A283 North		ONE HOUR	✓	1019	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	309	1069	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	236	2	0	26	3	89
	4 - A283 North	888	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.26	523.48	189.4	F	1334	2001
2 - Maudlin Lane	0.04	8.17	0.0	A	15	22
3 - Clays Hill	0.55	11.38	1.2	B	327	490
4 - A283 North	0.90	26.03	7.6	D	935	1403
5 - Castle Lane	0.16	10.62	0.2	B	52	78
6 - The Street	0.35	7.56	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1095	274	200	1320	0.829	1077	878	0.0	4.4	13.935	B
2 - Maudlin Lane	12	3	1250	613	0.020	12	27	0.0	0.0	5.986	A
3 - Clays Hill	268	67	949	814	0.329	266	313	0.0	0.5	6.551	A
4 - A283 North	767	192	311	1329	0.577	762	903	0.0	1.3	6.286	A
5 - Castle Lane	43	11	1017	639	0.067	43	56	0.0	0.1	6.031	A
6 - The Street	173	43	906	975	0.178	172	153	0.0	0.2	4.482	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1307	327	239	1298	1.007	1247	1052	4.4	19.4	45.610	E
2 - Maudlin Lane	14	4	1455	498	0.029	14	32	0.0	0.0	7.443	A
3 - Clays Hill	320	80	1103	732	0.437	319	366	0.5	0.8	8.689	A
4 - A283 North	916	229	371	1294	0.708	912	1051	1.3	2.3	9.320	A
5 - Castle Lane	51	13	1217	539	0.095	51	66	0.1	0.1	7.375	A
6 - The Street	207	52	1085	872	0.237	206	183	0.2	0.3	5.410	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1601	400	292	1269	1.262	1266	1276	19.4	103.1	182.813	F
2 - Maudlin Lane	18	4	1522	460	0.038	18	37	0.0	0.0	8.144	A
3 - Clays Hill	392	98	1147	709	0.553	390	393	0.8	1.2	11.233	B
4 - A283 North	1122	280	443	1253	0.896	1103	1095	2.3	7.0	21.859	C
5 - Castle Lane	63	16	1475	410	0.153	62	71	0.1	0.2	10.343	B
6 - The Street	253	63	1316	739	0.343	252	222	0.3	0.5	7.392	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1601	400	294	1268	1.263	1268	1291	103.1	186.4	413.922	F
2 - Maudlin Lane	18	4	1525	458	0.038	18	37	0.0	0.0	8.170	A
3 - Clays Hill	392	98	1148	708	0.554	392	394	1.2	1.2	11.379	B
4 - A283 North	1122	280	444	1252	0.896	1119	1096	7.0	7.6	26.029	D
5 - Castle Lane	63	16	1493	402	0.156	63	71	0.2	0.2	10.621	B
6 - The Street	253	63	1332	730	0.347	253	224	0.5	0.5	7.556	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1307	327	242	1297	1.008	1295	1075	186.4	189.4	523.481	F
2 - Maudlin Lane	14	4	1504	470	0.031	14	32	0.0	0.0	7.899	A
3 - Clays Hill	320	80	1141	712	0.450	322	378	1.2	0.8	9.258	A
4 - A283 North	916	229	376	1292	0.709	937	1087	7.6	2.5	10.683	B
5 - Castle Lane	51	13	1244	526	0.098	52	68	0.2	0.1	7.597	A
6 - The Street	207	52	1109	857	0.241	208	186	0.5	0.3	5.546	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1095	274	202	1319	0.830	1312	889	189.4	135.0	445.878	F
2 - Maudlin Lane	12	3	1485	481	0.025	12	29	0.0	0.0	7.669	A
3 - Clays Hill	268	67	1133	716	0.374	269	364	0.8	0.6	8.065	A
4 - A283 North	767	192	324	1322	0.580	772	1077	2.5	1.4	6.600	A
5 - Castle Lane	43	11	1031	632	0.068	43	66	0.1	0.1	6.110	A
6 - The Street	173	43	917	968	0.179	174	156	0.3	0.2	4.533	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	82.82	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1208	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	596	100.000
4 - A283 North		ONE HOUR	✓	867	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	299	885	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	415	0	0	53	3	125
	4 - A283 North	771	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.08	156.33	63.5	F	1108	1663
2 - Maudlin Lane	0.04	8.63	0.0	A	15	22
3 - Clays Hill	0.92	50.06	8.5	F	547	820
4 - A283 North	0.89	28.27	7.0	D	796	1193
5 - Castle Lane	0.35	16.47	0.5	C	98	147
6 - The Street	0.33	8.19	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	909	227	174	1269	0.717	900	946	0.0	2.4	9.521	A
2 - Maudlin Lane	12	3	1061	654	0.018	12	12	0.0	0.0	5.606	A
3 - Clays Hill	449	112	783	876	0.512	445	290	0.0	1.0	8.268	A
4 - A283 North	653	163	440	1184	0.551	648	788	0.0	1.2	6.660	A
5 - Castle Lane	81	20	1066	590	0.137	80	22	0.0	0.2	7.049	A
6 - The Street	150	37	970	935	0.160	149	176	0.0	0.2	4.579	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1086	271	208	1251	0.868	1073	1132	2.4	5.7	18.936	C
2 - Maudlin Lane	14	4	1267	541	0.027	14	14	0.0	0.0	6.837	A
3 - Clays Hill	536	134	935	791	0.677	532	346	1.0	2.0	13.666	B
4 - A283 North	779	195	527	1136	0.686	776	940	1.2	2.1	9.890	A
5 - Castle Lane	96	24	1276	483	0.199	96	26	0.2	0.2	9.301	A
6 - The Street	179	45	1161	818	0.219	179	211	0.2	0.3	5.627	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1330	333	254	1227	1.084	1207	1365	5.7	36.6	74.977	F
2 - Maudlin Lane	18	4	1443	444	0.040	18	17	0.0	0.0	8.444	A
3 - Clays Hill	656	164	1064	720	0.912	636	397	2.0	7.0	36.703	E
4 - A283 North	955	239	629	1080	0.884	938	1071	2.1	6.2	23.134	C
5 - Castle Lane	118	29	1537	349	0.337	117	30	0.2	0.5	15.424	C
6 - The Street	219	55	1400	672	0.326	218	253	0.3	0.5	7.915	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1330	333	255	1227	1.084	1222	1387	36.6	63.5	156.326	F
2 - Maudlin Lane	18	4	1460	435	0.041	18	17	0.0	0.0	8.634	A
3 - Clays Hill	656	164	1076	713	0.921	650	401	7.0	8.5	50.059	F
4 - A283 North	955	239	642	1073	0.890	951	1084	6.2	7.0	28.270	D
5 - Castle Lane	118	29	1563	336	0.351	118	31	0.5	0.5	16.471	C
6 - The Street	219	55	1423	659	0.333	219	258	0.5	0.5	8.189	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1086	271	210	1250	0.869	1230	1171	63.5	27.4	136.334	F
2 - Maudlin Lane	14	4	1426	452	0.032	14	15	0.0	0.0	8.221	A
3 - Clays Hill	536	134	1054	724	0.740	558	386	8.5	3.1	23.865	C
4 - A283 North	779	195	553	1122	0.695	798	1059	7.0	2.4	11.721	B
5 - Castle Lane	96	24	1323	459	0.210	97	28	0.5	0.3	9.983	A
6 - The Street	179	45	1201	794	0.225	180	219	0.5	0.3	5.868	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	909	227	175	1268	0.717	1008	962	27.4	2.7	19.379	C
2 - Maudlin Lane	12	3	1171	593	0.020	12	12	0.0	0.0	6.200	A
3 - Clays Hill	449	112	866	830	0.541	456	318	3.1	1.2	9.824	A
4 - A283 North	653	163	453	1177	0.555	657	869	2.4	1.3	6.983	A
5 - Castle Lane	81	20	1087	580	0.139	81	23	0.3	0.2	7.225	A
6 - The Street	150	37	988	924	0.162	150	180	0.3	0.2	4.655	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	239.56	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1442	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	356	100.000
4 - A283 North		ONE HOUR	✓	1019	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	305	1061	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	236	2	0	26	3	89
	4 - A283 North	888	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.25	497.98	179.2	F	1323	1985
2 - Maudlin Lane	0.04	8.17	0.0	A	15	22
3 - Clays Hill	0.55	11.40	1.2	B	327	490
4 - A283 North	0.90	26.07	7.7	D	935	1403
5 - Castle Lane	0.16	10.62	0.2	B	52	78
6 - The Street	0.35	7.56	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1086	271	200	1320	0.822	1069	878	0.0	4.3	13.530	B
2 - Maudlin Lane	12	3	1242	618	0.019	12	27	0.0	0.0	5.940	A
3 - Clays Hill	268	67	943	817	0.328	266	311	0.0	0.5	6.517	A
4 - A283 North	767	192	311	1329	0.577	762	898	0.0	1.3	6.286	A
5 - Castle Lane	43	11	1017	639	0.067	43	56	0.0	0.1	6.031	A
6 - The Street	173	43	906	975	0.178	172	153	0.0	0.2	4.482	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1296	324	239	1298	0.999	1242	1052	4.3	17.9	43.037	E
2 - Maudlin Lane	14	4	1449	501	0.029	14	32	0.0	0.0	7.398	A
3 - Clays Hill	320	80	1100	734	0.436	319	364	0.5	0.8	8.656	A
4 - A283 North	916	229	371	1294	0.708	912	1047	1.3	2.3	9.321	A
5 - Castle Lane	51	13	1217	539	0.095	51	66	0.1	0.1	7.375	A
6 - The Street	207	52	1085	872	0.237	206	183	0.2	0.3	5.410	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1588	397	292	1269	1.252	1266	1276	17.9	98.3	174.175	F
2 - Maudlin Lane	18	4	1522	460	0.038	18	37	0.0	0.0	8.140	A
3 - Clays Hill	392	98	1148	708	0.553	390	391	0.8	1.2	11.251	B
4 - A283 North	1122	280	443	1252	0.896	1103	1095	2.3	7.0	21.887	C
5 - Castle Lane	63	16	1475	410	0.153	62	71	0.1	0.2	10.343	B
6 - The Street	253	63	1316	739	0.343	252	222	0.3	0.5	7.392	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1588	397	294	1268	1.252	1267	1291	98.3	178.4	396.219	F
2 - Maudlin Lane	18	4	1524	458	0.038	18	37	0.0	0.0	8.169	A
3 - Clays Hill	392	98	1150	707	0.554	392	392	1.2	1.2	11.401	B
4 - A283 North	1122	280	445	1251	0.897	1119	1097	7.0	7.7	26.072	D
5 - Castle Lane	63	16	1493	402	0.156	63	71	0.2	0.2	10.622	B
6 - The Street	253	63	1332	730	0.347	253	224	0.5	0.5	7.556	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1296	324	242	1297	1.000	1293	1075	178.4	179.2	497.981	F
2 - Maudlin Lane	14	4	1502	471	0.031	14	33	0.0	0.0	7.882	A
3 - Clays Hill	320	80	1141	712	0.449	322	376	1.2	0.8	9.256	A
4 - A283 North	916	229	376	1291	0.709	937	1086	7.7	2.5	10.693	B
5 - Castle Lane	51	13	1244	526	0.098	52	68	0.2	0.1	7.601	A
6 - The Street	207	52	1109	857	0.241	208	186	0.5	0.3	5.546	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1086	271	202	1319	0.823	1312	889	179.2	122.7	415.121	F
2 - Maudlin Lane	12	3	1484	482	0.025	12	29	0.0	0.0	7.668	A
3 - Clays Hill	268	67	1134	716	0.375	269	363	0.8	0.6	8.074	A
4 - A283 North	767	192	325	1321	0.581	772	1078	2.5	1.4	6.600	A
5 - Castle Lane	43	11	1031	632	0.068	43	66	0.1	0.1	6.113	A
6 - The Street	173	43	917	968	0.179	174	156	0.3	0.2	4.535	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	77.97	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1196	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	598	100.000
4 - A283 North		ONE HOUR	✓	868	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	296	876	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	417	0	0	53	3	125
	4 - A283 North	772	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.07	144.42	57.9	F	1097	1646
2 - Maudlin Lane	0.04	8.62	0.0	A	15	22
3 - Clays Hill	0.92	50.86	8.7	F	549	823
4 - A283 North	0.89	28.68	7.2	D	796	1195
5 - Castle Lane	0.35	16.58	0.5	C	98	147
6 - The Street	0.33	8.22	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	900	225	174	1268	0.710	891	948	0.0	2.4	9.331	A
2 - Maudlin Lane	12	3	1053	659	0.018	12	12	0.0	0.0	5.567	A
3 - Clays Hill	450	113	777	879	0.512	446	288	0.0	1.0	8.231	A
4 - A283 North	653	163	442	1183	0.552	649	781	0.0	1.2	6.679	A
5 - Castle Lane	81	20	1069	589	0.137	80	22	0.0	0.2	7.065	A
6 - The Street	150	37	972	933	0.161	149	176	0.0	0.2	4.586	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1075	269	208	1250	0.860	1063	1135	2.4	5.4	18.135	C
2 - Maudlin Lane	14	4	1257	546	0.026	14	14	0.0	0.0	6.771	A
3 - Clays Hill	538	134	927	795	0.676	534	344	1.0	2.0	13.560	B
4 - A283 North	780	195	528	1135	0.687	777	933	1.2	2.1	9.946	A
5 - Castle Lane	96	24	1279	481	0.200	96	26	0.2	0.2	9.333	A
6 - The Street	179	45	1164	816	0.219	179	211	0.2	0.3	5.641	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1317	329	254	1226	1.074	1203	1368	5.4	33.8	70.614	F
2 - Maudlin Lane	18	4	1440	445	0.040	18	17	0.0	0.0	8.415	A
3 - Clays Hill	658	165	1061	721	0.914	638	396	2.0	7.1	36.926	E
4 - A283 North	956	239	631	1079	0.886	939	1068	2.1	6.3	23.382	C
5 - Castle Lane	118	29	1540	348	0.339	117	31	0.2	0.5	15.511	C
6 - The Street	219	55	1403	671	0.327	218	253	0.3	0.5	7.944	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1317	329	255	1226	1.074	1220	1390	33.8	57.9	144.419	F
2 - Maudlin Lane	18	4	1458	435	0.040	18	17	0.0	0.0	8.622	A
3 - Clays Hill	658	165	1075	713	0.923	652	401	7.1	8.7	50.857	F
4 - A283 North	956	239	644	1071	0.892	952	1083	6.3	7.2	28.684	D
5 - Castle Lane	118	29	1566	335	0.352	118	31	0.5	0.5	16.578	C
6 - The Street	219	55	1426	657	0.334	219	258	0.5	0.5	8.221	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1075	269	210	1249	0.861	1228	1174	57.9	19.7	118.023	F
2 - Maudlin Lane	14	4	1423	453	0.032	14	15	0.0	0.0	8.199	A
3 - Clays Hill	538	134	1052	725	0.741	560	386	8.7	3.1	24.162	C
4 - A283 North	780	195	555	1120	0.696	799	1057	7.2	2.4	11.825	B
5 - Castle Lane	96	24	1327	457	0.210	97	28	0.5	0.3	10.033	B
6 - The Street	179	45	1204	792	0.226	180	220	0.5	0.3	5.885	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	900	225	175	1267	0.711	969	965	19.7	2.6	14.829	B
2 - Maudlin Lane	12	3	1132	615	0.020	12	12	0.0	0.0	5.978	A
3 - Clays Hill	450	113	836	846	0.532	458	308	3.1	1.2	9.453	A
4 - A283 North	653	163	454	1176	0.556	658	840	2.4	1.3	7.003	A
5 - Castle Lane	81	20	1089	578	0.139	81	23	0.3	0.2	7.245	A
6 - The Street	150	37	990	923	0.162	150	180	0.3	0.2	4.662	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	232.39	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1435	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	354	100.000
4 - A283 North		ONE HOUR	✓	1011	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	303	1056	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	234	2	0	26	3	89
	4 - A283 North	880	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.25	483.28	173.8	F	1317	1975
2 - Maudlin Lane	0.04	8.17	0.0	A	15	22
3 - Clays Hill	0.55	11.33	1.2	B	325	487
4 - A283 North	0.89	24.54	7.2	C	928	1392
5 - Castle Lane	0.15	10.46	0.2	B	52	78
6 - The Street	0.34	7.46	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1080	270	200	1320	0.818	1064	871	0.0	4.2	13.303	B
2 - Maudlin Lane	12	3	1237	621	0.019	12	27	0.0	0.0	5.914	A
3 - Clays Hill	267	67	940	818	0.326	265	309	0.0	0.5	6.478	A
4 - A283 North	761	190	310	1330	0.572	756	894	0.0	1.3	6.217	A
5 - Castle Lane	43	11	1009	643	0.067	43	56	0.0	0.1	5.995	A
6 - The Street	173	43	899	979	0.177	172	153	0.0	0.2	4.459	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1290	323	239	1298	0.994	1238	1043	4.2	17.1	41.600	E
2 - Maudlin Lane	14	4	1446	503	0.029	14	32	0.0	0.0	7.369	A
3 - Clays Hill	318	80	1098	735	0.433	317	363	0.5	0.8	8.596	A
4 - A283 North	909	227	370	1295	0.702	905	1045	1.3	2.3	9.141	A
5 - Castle Lane	51	13	1208	543	0.094	51	66	0.1	0.1	7.311	A
6 - The Street	207	52	1076	877	0.236	206	183	0.2	0.3	5.370	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1580	395	292	1269	1.246	1266	1266	17.1	95.7	169.316	F
2 - Maudlin Lane	18	4	1521	460	0.038	18	37	0.0	0.0	8.137	A
3 - Clays Hill	390	97	1148	708	0.550	388	391	0.8	1.2	11.181	B
4 - A283 North	1113	278	441	1253	0.888	1096	1095	2.3	6.6	20.921	C
5 - Castle Lane	63	16	1466	415	0.151	62	71	0.1	0.2	10.204	B
6 - The Street	253	63	1306	744	0.340	252	222	0.3	0.5	7.309	A

17:30 - 17:45

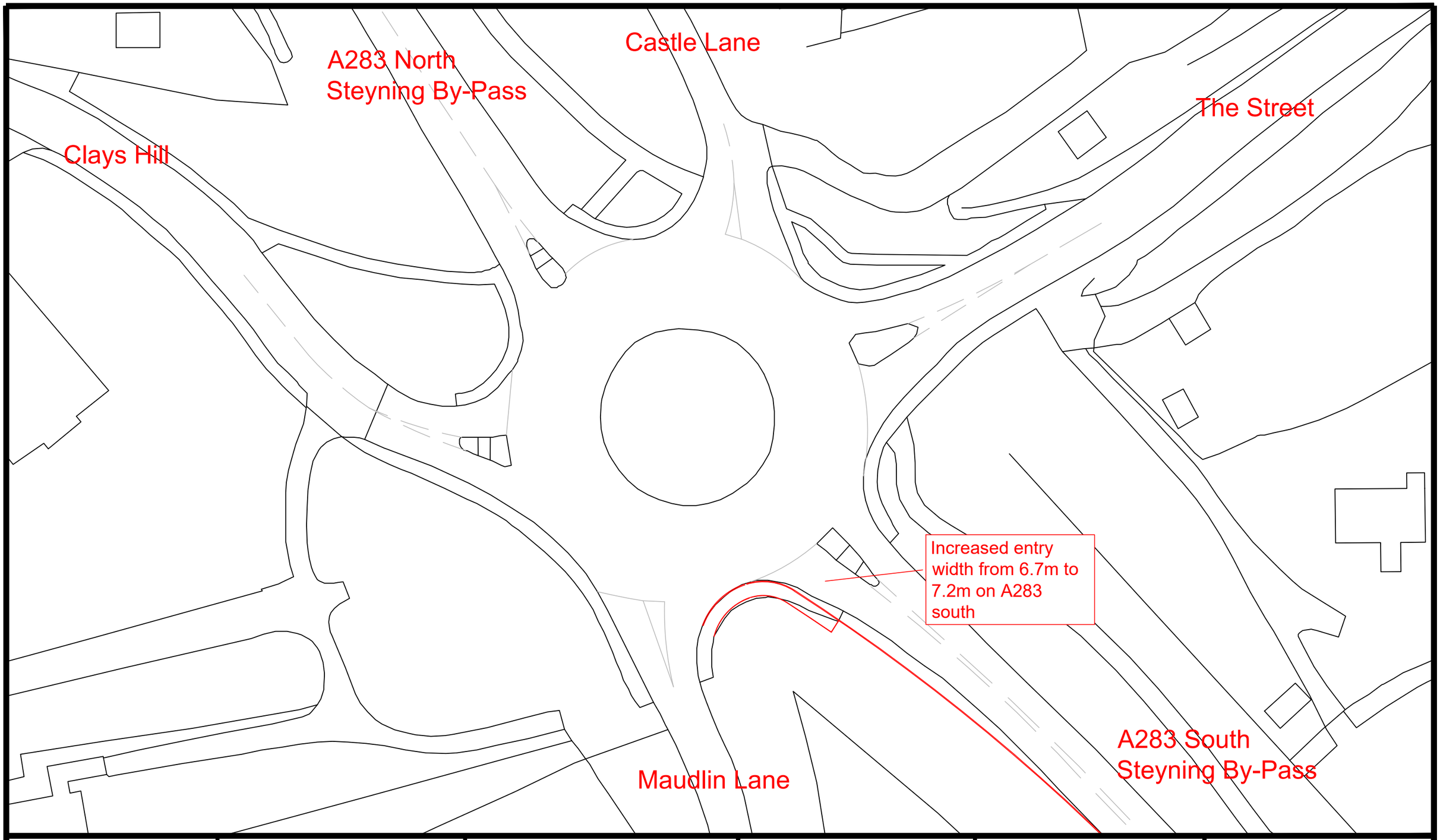
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1580	395	294	1268	1.246	1267	1280	95.7	173.8	386.086	F
2 - Maudlin Lane	18	4	1524	458	0.038	18	37	0.0	0.0	8.168	A
3 - Clays Hill	390	97	1150	707	0.551	390	392	1.2	1.2	11.332	B
4 - A283 North	1113	278	443	1252	0.889	1111	1097	6.6	7.2	24.538	C
5 - Castle Lane	63	16	1482	407	0.154	63	72	0.2	0.2	10.462	B
6 - The Street	253	63	1321	736	0.344	253	224	0.5	0.5	7.462	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1290	323	242	1297	0.995	1290	1065	173.8	173.8	483.278	F
2 - Maudlin Lane	14	4	1499	473	0.030	14	33	0.0	0.0	7.850	A
3 - Clays Hill	318	80	1139	713	0.446	320	375	1.2	0.8	9.192	A
4 - A283 North	909	227	375	1292	0.703	928	1084	7.2	2.5	10.355	B
5 - Castle Lane	51	13	1234	531	0.097	52	69	0.2	0.1	7.515	A
6 - The Street	207	52	1099	863	0.239	208	186	0.5	0.3	5.495	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1080	270	202	1319	0.819	1311	882	173.8	116.0	398.744	F
2 - Maudlin Lane	12	3	1484	482	0.025	12	29	0.0	0.0	7.662	A
3 - Clays Hill	267	67	1134	715	0.373	267	362	0.8	0.6	8.051	A
4 - A283 North	761	190	324	1322	0.576	765	1078	2.5	1.4	6.520	A
5 - Castle Lane	43	11	1023	636	0.067	43	66	0.1	0.1	6.074	A
6 - The Street	173	43	910	972	0.178	174	156	0.3	0.2	4.510	A



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H I G H W A Y S

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NOTES

1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A283 / CLAY HILL

Date	Drawn		
12/11/2021	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
1/500@A3	APPENDIX 3.3		

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 3 - B - A283 Steyning - Proposed Improvement - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\3 - A283 + Clays Hill + The Street
Report generation date: 11/11/2021 12:02:05

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A283 South	15.9	44.71	0.96	E	44.85	E	-7 % [3 - Clays Hill]	84.0	170.23	1.10	F	89.25	F	-13 % [1 - A283 South]
2 - Maudlin Lane	0.0	10.17	0.05	B				0.1	10.55	0.05	B			
3 - Clays Hill	16.0	88.10	0.99	F				1.6	15.09	0.63	C			
4 - A283 North	7.2	28.72	0.89	D				7.2	24.76	0.89	C			
5 - Castle Lane	0.5	16.40	0.35	C				0.2	10.47	0.15	B			
6 - The Street	0.5	8.20	0.33	A				0.5	7.46	0.34	A			
Scenario 2 Total														
1 - A283 South	14.1	40.32	0.95	E	41.77	E	-7 % [3 - Clays Hill]	87.1	175.90	1.10	F	92.46	F	-14 % [1 - A283 South]
2 - Maudlin Lane	0.0	10.00	0.05	A				0.1	10.55	0.05	B			
3 - Clays Hill	14.7	82.08	0.98	F				1.6	14.81	0.62	B			
4 - A283 North	7.1	28.27	0.89	D				7.8	26.77	0.90	D			
5 - Castle Lane	0.5	16.33	0.35	C				0.2	10.63	0.16	B			
6 - The Street	0.5	8.17	0.33	A				0.5	7.55	0.35	A			
Scenario 3 Total														
1 - A283 South	13.6	39.07	0.95	E	40.28	E	-7 % [3 - Clays Hill]	80.8	164.57	1.10	F	86.96	F	-13 % [1 - A283 South]
2 - Maudlin Lane	0.0	9.94	0.05	A				0.1	10.54	0.05	B			
3 - Clays Hill	13.9	78.34	0.98	F				1.6	14.84	0.62	B			
4 - A283 North	6.8	27.45	0.89	D				7.9	26.82	0.90	D			
5 - Castle Lane	0.5	16.16	0.35	C				0.2	10.63	0.16	B			
6 - The Street	0.5	8.11	0.33	A				0.5	7.55	0.35	A			
Scenario 4 Total														
1 - A283 South	12.2	35.63	0.94	E	38.68	E	-6 % [3 - Clays Hill]	77.3	158.10	1.09	F	83.46	F	-13 % [1 - A283 South]
2 - Maudlin Lane	0.0	9.78	0.05	A				0.1	10.54	0.05	B			
3 - Clays Hill	13.5	76.38	0.97	F				1.6	14.72	0.62	B			
4 - A283 North	7.0	27.93	0.89	D				7.4	25.21	0.89	D			
5 - Castle Lane	0.5	16.30	0.35	C				0.2	10.47	0.15	B			
6 - The Street	0.5	8.15	0.33	A				0.5	7.46	0.34	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	44.85	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	3 - Clays Hill

Arms

Arms

Arm	Name	Description
1	A283 South	
2	Maudlin Lane	
3	Clays Hill	
4	A283 North	
5	Castle Lane	
6	The Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 South	3.60	7.20	23.5	8.0	49.0	39.0	
2 - Maudlin Lane	3.10	5.00	6.8	35.5	49.0	19.0	
3 - Clays Hill	3.80	6.50	3.5	10.3	49.0	27.0	
4 - A283 North	4.40	7.20	2.6	17.8	49.0	25.0	
5 - Castle Lane	2.20	5.60	12.7	9.8	49.0	33.0	
6 - The Street	3.90	6.50	7.0	14.1	49.0	27.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 South	0.570	1632
2 - Maudlin Lane	0.557	1317
3 - Clays Hill	0.533	1338
4 - A283 North	0.586	1541
5 - Castle Lane	0.490	1147
6 - The Street	0.577	1526

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1225	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	599	100.000
4 - A283 North		ONE HOUR	✓	874	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	301	900	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	418	0	0	53	3	125
	4 - A283 North	778	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	0.96	44.71	15.9	E	1124	1686
2 - Maudlin Lane	0.05	10.17	0.0	B	15	22
3 - Clays Hill	0.99	88.10	16.0	F	550	824
4 - A283 North	0.89	28.72	7.2	D	802	1203
5 - Castle Lane	0.35	16.40	0.5	C	98	147
6 - The Street	0.33	8.20	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	922	231	174	1445	0.638	915	953	0.0	1.7	6.719	A
2 - Maudlin Lane	12	3	1077	646	0.019	12	12	0.0	0.0	5.680	A
3 - Clays Hill	451	113	797	869	0.519	447	292	0.0	1.1	8.445	A
4 - A283 North	658	164	442	1183	0.556	653	801	0.0	1.2	6.730	A
5 - Castle Lane	81	20	1074	586	0.137	80	22	0.0	0.2	7.099	A
6 - The Street	150	37	977	930	0.161	149	176	0.0	0.2	4.604	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1101	275	208	1426	0.772	1095	1141	1.7	3.2	10.691	B
2 - Maudlin Lane	14	4	1289	529	0.027	14	14	0.0	0.0	6.995	A
3 - Clays Hill	538	135	954	781	0.689	534	350	1.1	2.1	14.320	B
4 - A283 North	786	196	529	1135	0.692	782	959	1.2	2.2	10.076	B
5 - Castle Lane	96	24	1285	478	0.201	96	26	0.2	0.2	9.403	A
6 - The Street	179	45	1170	813	0.220	179	211	0.2	0.3	5.671	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1349	337	254	1401	0.963	1310	1365	3.2	12.8	31.141	D
2 - Maudlin Lane	18	4	1547	387	0.046	18	17	0.0	0.0	9.749	A
3 - Clays Hill	660	165	1144	675	0.977	625	420	2.1	10.8	52.185	F
4 - A283 North	962	241	620	1085	0.887	946	1148	2.2	6.4	23.386	C
5 - Castle Lane	118	29	1535	350	0.336	117	31	0.2	0.5	15.346	C
6 - The Street	219	55	1401	672	0.326	218	251	0.3	0.5	7.919	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1349	337	255	1401	0.963	1337	1387	12.8	15.9	44.712	E
2 - Maudlin Lane	18	4	1574	372	0.047	18	18	0.0	0.0	10.168	B
3 - Clays Hill	660	165	1164	664	0.994	639	427	10.8	16.0	88.097	F
4 - A283 North	962	241	634	1078	0.893	959	1169	6.4	7.2	28.716	D
5 - Castle Lane	118	29	1561	337	0.350	118	32	0.5	0.5	16.399	C
6 - The Street	219	55	1424	658	0.333	219	255	0.5	0.5	8.196	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1101	275	210	1425	0.773	1150	1201	15.9	3.6	15.204	C
2 - Maudlin Lane	14	4	1346	497	0.029	14	15	0.0	0.0	7.457	A
3 - Clays Hill	538	135	996	758	0.711	592	364	16.0	2.6	27.702	D
4 - A283 North	786	196	583	1106	0.710	804	1005	7.2	2.6	12.606	B
5 - Castle Lane	96	24	1360	441	0.218	97	27	0.5	0.3	10.507	B
6 - The Street	179	45	1232	776	0.230	180	225	0.5	0.3	6.042	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	922	231	175	1444	0.639	929	970	3.6	1.8	7.094	A
2 - Maudlin Lane	12	3	1093	637	0.019	12	12	0.0	0.0	5.759	A
3 - Clays Hill	451	113	808	863	0.523	457	296	2.6	1.1	9.008	A
4 - A283 North	658	164	452	1178	0.559	663	813	2.6	1.3	7.063	A
5 - Castle Lane	81	20	1093	576	0.140	81	22	0.3	0.2	7.272	A
6 - The Street	150	37	995	920	0.163	150	180	0.3	0.2	4.679	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	89.25	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1448	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	360	100.000
4 - A283 North		ONE HOUR	✓	1005	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	307	1065	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	240	2	0	26	3	89
	4 - A283 North	874	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.10	170.23	84.0	F	1329	1993
2 - Maudlin Lane	0.05	10.55	0.1	B	15	22
3 - Clays Hill	0.63	15.09	1.6	C	330	496
4 - A283 North	0.89	24.76	7.2	C	922	1383
5 - Castle Lane	0.15	10.47	0.2	B	52	78
6 - The Street	0.34	7.46	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	273	200	1503	0.725	1080	871	0.0	2.6	8.315	A
2 - Maudlin Lane	12	3	1253	612	0.020	12	27	0.0	0.0	6.003	A
3 - Clays Hill	271	68	951	812	0.334	269	314	0.0	0.5	6.601	A
4 - A283 North	757	189	315	1327	0.570	751	906	0.0	1.3	6.199	A
5 - Castle Lane	43	11	1009	643	0.067	43	57	0.0	0.1	5.995	A
6 - The Street	173	43	899	979	0.177	172	153	0.0	0.2	4.459	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1302	325	239	1480	0.879	1287	1043	2.6	6.3	17.358	C
2 - Maudlin Lane	14	4	1494	476	0.030	14	32	0.0	0.0	7.800	A
3 - Clays Hill	324	81	1134	716	0.452	322	374	0.5	0.8	9.125	A
4 - A283 North	903	226	377	1291	0.700	900	1080	1.3	2.3	9.114	A
5 - Castle Lane	51	13	1209	543	0.094	51	68	0.1	0.1	7.311	A
6 - The Street	207	52	1076	877	0.236	206	184	0.2	0.3	5.370	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1594	399	292	1450	1.100	1432	1265	6.3	46.9	77.424	F
2 - Maudlin Lane	18	4	1686	367	0.048	18	38	0.0	0.0	10.286	B
3 - Clays Hill	396	99	1277	640	0.619	393	427	0.8	1.6	14.407	B
4 - A283 North	1107	277	453	1246	0.888	1089	1217	2.3	6.6	20.997	C
5 - Castle Lane	63	16	1465	415	0.151	62	77	0.1	0.2	10.201	B
6 - The Street	253	63	1305	745	0.340	252	223	0.3	0.5	7.302	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1594	399	294	1449	1.100	1446	1280	46.9	84.0	170.229	F
2 - Maudlin Lane	18	4	1701	359	0.049	18	38	0.0	0.1	10.548	B
3 - Clays Hill	396	99	1288	634	0.625	396	431	1.6	1.6	15.094	C
4 - A283 North	1107	277	457	1244	0.889	1104	1228	6.6	7.2	24.756	C
5 - Castle Lane	63	16	1483	406	0.154	63	78	0.2	0.2	10.474	B
6 - The Street	253	63	1321	736	0.344	253	225	0.5	0.5	7.461	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1302	325	242	1479	0.880	1462	1066	84.0	44.0	159.571	F
2 - Maudlin Lane	14	4	1669	377	0.038	14	34	0.1	0.0	9.922	A
3 - Clays Hill	324	81	1272	643	0.504	326	412	1.6	1.0	11.448	B
4 - A283 North	903	226	388	1284	0.704	922	1210	7.2	2.5	10.433	B
5 - Castle Lane	51	13	1236	530	0.097	52	75	0.2	0.1	7.529	A
6 - The Street	207	52	1100	863	0.240	208	187	0.5	0.3	5.500	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	273	202	1502	0.726	1255	882	44.0	2.8	25.898	D
2 - Maudlin Lane	12	3	1428	513	0.023	12	29	0.0	0.0	7.181	A
3 - Clays Hill	271	68	1089	740	0.366	273	351	1.0	0.6	7.742	A
4 - A283 North	757	189	326	1320	0.573	761	1035	2.5	1.4	6.484	A
5 - Castle Lane	43	11	1023	636	0.068	43	64	0.1	0.1	6.074	A
6 - The Street	173	43	910	972	0.178	174	156	0.3	0.2	4.512	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	41.77	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	3 - Clays Hill

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1212	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	598	100.000
4 - A283 North		ONE HOUR	✓	871	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	299	889	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	417	0	0	53	3	125
	4 - A283 North	775	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	0.95	40.32	14.1	E	1112	1668
2 - Maudlin Lane	0.05	10.00	0.0	A	15	22
3 - Clays Hill	0.98	82.08	14.7	F	549	823
4 - A283 North	0.89	28.27	7.1	D	799	1199
5 - Castle Lane	0.35	16.33	0.5	C	98	147
6 - The Street	0.33	8.17	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	912	228	174	1444	0.632	906	950	0.0	1.7	6.612	A
2 - Maudlin Lane	12	3	1067	651	0.019	12	12	0.0	0.0	5.635	A
3 - Clays Hill	450	113	789	873	0.516	446	291	0.0	1.0	8.348	A
4 - A283 North	656	164	442	1183	0.554	651	793	0.0	1.2	6.703	A
5 - Castle Lane	81	20	1071	588	0.137	80	22	0.0	0.2	7.079	A
6 - The Street	150	37	975	932	0.161	149	176	0.0	0.2	4.594	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	272	208	1425	0.765	1084	1137	1.7	3.1	10.376	B
2 - Maudlin Lane	14	4	1278	535	0.027	14	14	0.0	0.0	6.916	A
3 - Clays Hill	538	134	944	786	0.684	534	348	1.0	2.1	14.008	B
4 - A283 North	783	196	528	1136	0.690	779	949	1.2	2.1	9.998	A
5 - Castle Lane	96	24	1282	480	0.200	96	26	0.2	0.2	9.362	A
6 - The Street	179	45	1167	815	0.219	179	211	0.2	0.3	5.654	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1334	334	254	1400	0.953	1300	1363	3.1	11.7	29.106	D
2 - Maudlin Lane	18	4	1537	392	0.045	18	17	0.0	0.0	9.611	A
3 - Clays Hill	658	165	1135	680	0.969	626	419	2.1	10.2	49.894	E
4 - A283 North	959	240	621	1084	0.884	943	1140	2.1	6.3	23.095	C
5 - Castle Lane	118	29	1533	351	0.335	117	31	0.2	0.5	15.284	C
6 - The Street	219	55	1398	674	0.325	218	251	0.3	0.5	7.894	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1334	334	255	1400	0.953	1325	1385	11.7	14.1	40.316	E
2 - Maudlin Lane	18	4	1563	378	0.047	18	18	0.0	0.0	9.997	A
3 - Clays Hill	658	165	1154	669	0.984	640	426	10.2	14.7	82.081	F
4 - A283 North	959	240	635	1077	0.891	956	1160	6.3	7.1	28.274	D
5 - Castle Lane	118	29	1559	338	0.349	118	32	0.5	0.5	16.335	C
6 - The Street	219	55	1421	660	0.332	219	256	0.5	0.5	8.171	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	272	210	1424	0.765	1132	1194	14.1	3.4	13.947	B
2 - Maudlin Lane	14	4	1327	507	0.028	14	15	0.0	0.0	7.306	A
3 - Clays Hill	538	134	981	766	0.702	586	361	14.7	2.5	24.878	C
4 - A283 North	783	196	577	1109	0.706	801	990	7.1	2.5	12.358	B
5 - Castle Lane	96	24	1352	445	0.216	97	27	0.5	0.3	10.386	B
6 - The Street	179	45	1225	780	0.229	180	224	0.5	0.3	6.000	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	912	228	175	1443	0.632	919	966	3.4	1.8	6.962	A
2 - Maudlin Lane	12	3	1082	643	0.019	12	12	0.0	0.0	5.711	A
3 - Clays Hill	450	113	800	867	0.519	456	295	2.5	1.1	8.873	A
4 - A283 North	656	164	451	1178	0.557	661	804	2.5	1.3	7.023	A
5 - Castle Lane	81	20	1090	578	0.139	81	22	0.3	0.2	7.246	A
6 - The Street	150	37	991	922	0.162	150	179	0.3	0.2	4.668	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	92.46	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1454	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	356	100.000
4 - A283 North		ONE HOUR	✓	1019	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	309	1069	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	236	2	0	26	3	89
	4 - A283 North	888	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.10	175.90	87.1	F	1334	2001
2 - Maudlin Lane	0.05	10.55	0.1	B	15	22
3 - Clays Hill	0.62	14.81	1.6	B	327	490
4 - A283 North	0.90	26.77	7.8	D	935	1403
5 - Castle Lane	0.16	10.63	0.2	B	52	78
6 - The Street	0.35	7.55	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1095	274	200	1503	0.728	1084	878	0.0	2.6	8.395	A
2 - Maudlin Lane	12	3	1257	609	0.020	12	27	0.0	0.0	6.027	A
3 - Clays Hill	268	67	954	811	0.331	266	315	0.0	0.5	6.585	A
4 - A283 North	767	192	312	1329	0.577	762	909	0.0	1.3	6.288	A
5 - Castle Lane	43	11	1017	639	0.067	43	57	0.0	0.1	6.031	A
6 - The Street	173	43	906	975	0.178	172	153	0.0	0.2	4.482	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1307	327	239	1480	0.883	1292	1052	2.6	6.5	17.733	C
2 - Maudlin Lane	14	4	1499	473	0.030	14	32	0.0	0.0	7.846	A
3 - Clays Hill	320	80	1137	714	0.448	319	376	0.5	0.8	9.085	A
4 - A283 North	916	229	373	1293	0.708	912	1083	1.3	2.3	9.345	A
5 - Castle Lane	51	13	1217	539	0.095	51	68	0.1	0.1	7.376	A
6 - The Street	207	52	1085	872	0.237	206	184	0.2	0.3	5.410	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1601	400	292	1450	1.104	1433	1275	6.5	48.5	79.495	F
2 - Maudlin Lane	18	4	1687	367	0.048	18	38	0.0	0.0	10.302	B
3 - Clays Hill	392	98	1277	640	0.612	389	428	0.8	1.5	14.180	B
4 - A283 North	1122	280	449	1249	0.898	1103	1217	2.3	7.1	22.242	C
5 - Castle Lane	63	16	1475	411	0.153	62	77	0.1	0.2	10.334	B
6 - The Street	253	63	1315	739	0.343	252	222	0.3	0.5	7.383	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1601	400	294	1449	1.105	1446	1291	48.5	87.1	175.898	F
2 - Maudlin Lane	18	4	1702	359	0.049	18	38	0.0	0.1	10.554	B
3 - Clays Hill	392	98	1288	634	0.618	392	432	1.5	1.6	14.814	B
4 - A283 North	1122	280	452	1247	0.900	1119	1227	7.1	7.8	26.768	D
5 - Castle Lane	63	16	1493	401	0.156	63	78	0.2	0.2	10.632	B
6 - The Street	253	63	1331	730	0.347	253	225	0.5	0.5	7.554	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1307	327	242	1479	0.884	1462	1077	87.1	48.3	168.464	F
2 - Maudlin Lane	14	4	1670	377	0.038	14	34	0.1	0.0	9.933	A
3 - Clays Hill	320	80	1271	643	0.498	322	413	1.6	1.0	11.312	B
4 - A283 North	916	229	384	1287	0.712	937	1210	7.8	2.6	10.872	B
5 - Castle Lane	51	13	1247	524	0.098	52	74	0.2	0.1	7.619	A
6 - The Street	207	52	1111	857	0.241	208	188	0.5	0.3	5.551	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1095	274	202	1502	0.729	1276	890	48.3	2.8	30.888	D
2 - Maudlin Lane	12	3	1449	501	0.024	12	29	0.0	0.0	7.358	A
3 - Clays Hill	268	67	1105	731	0.367	270	357	1.0	0.6	7.834	A
4 - A283 North	767	192	324	1322	0.580	772	1051	2.6	1.4	6.597	A
5 - Castle Lane	43	11	1031	632	0.068	43	64	0.1	0.1	6.116	A
6 - The Street	173	43	918	968	0.179	174	156	0.3	0.2	4.535	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	40.28	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	3 - Clays Hill

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1208	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	596	100.000
4 - A283 North		ONE HOUR	✓	867	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	299	885	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	415	0	0	53	3	125
	4 - A283 North	771	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	0.95	39.07	13.6	E	1108	1663
2 - Maudlin Lane	0.05	9.94	0.0	A	15	22
3 - Clays Hill	0.98	78.34	13.9	F	547	820
4 - A283 North	0.89	27.45	6.8	D	796	1193
5 - Castle Lane	0.35	16.16	0.5	C	98	147
6 - The Street	0.33	8.11	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	909	227	174	1443	0.630	903	946	0.0	1.7	6.581	A
2 - Maudlin Lane	12	3	1064	652	0.018	12	12	0.0	0.0	5.621	A
3 - Clays Hill	449	112	786	875	0.513	445	291	0.0	1.0	8.293	A
4 - A283 North	653	163	440	1184	0.551	648	790	0.0	1.2	6.660	A
5 - Castle Lane	81	20	1066	590	0.137	80	22	0.0	0.2	7.050	A
6 - The Street	150	37	970	935	0.160	149	176	0.0	0.2	4.579	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1086	271	208	1425	0.762	1080	1132	1.7	3.1	10.284	B
2 - Maudlin Lane	14	4	1274	537	0.027	14	14	0.0	0.0	6.891	A
3 - Clays Hill	536	134	940	788	0.680	532	348	1.0	2.0	13.823	B
4 - A283 North	779	195	527	1136	0.686	776	946	1.2	2.1	9.891	A
5 - Castle Lane	96	24	1276	483	0.199	96	26	0.2	0.2	9.301	A
6 - The Street	179	45	1161	818	0.219	179	211	0.2	0.3	5.627	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1330	333	254	1400	0.950	1297	1358	3.1	11.3	28.515	D
2 - Maudlin Lane	18	4	1534	394	0.045	18	17	0.0	0.0	9.569	A
3 - Clays Hill	656	164	1132	681	0.963	625	419	2.0	9.8	48.418	E
4 - A283 North	955	239	621	1084	0.880	939	1136	2.1	6.1	22.588	C
5 - Castle Lane	118	29	1528	354	0.333	117	31	0.2	0.5	15.142	C
6 - The Street	219	55	1393	676	0.324	218	252	0.3	0.5	7.845	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1330	333	255	1399	0.950	1321	1380	11.3	13.6	39.073	E
2 - Maudlin Lane	18	4	1559	380	0.046	18	18	0.0	0.0	9.944	A
3 - Clays Hill	656	164	1150	671	0.978	640	426	9.8	13.9	78.341	F
4 - A283 North	955	239	635	1077	0.887	952	1156	6.1	6.8	27.445	D
5 - Castle Lane	118	29	1554	340	0.346	118	32	0.5	0.5	16.163	C
6 - The Street	219	55	1416	663	0.331	219	256	0.5	0.5	8.114	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1086	271	210	1424	0.763	1127	1186	13.6	3.4	13.619	B
2 - Maudlin Lane	14	4	1322	510	0.028	14	15	0.0	0.0	7.264	A
3 - Clays Hill	536	134	976	768	0.697	582	360	13.9	2.5	23.473	C
4 - A283 North	779	195	573	1111	0.702	797	985	6.8	2.4	12.072	B
5 - Castle Lane	96	24	1343	449	0.214	97	27	0.5	0.3	10.258	B
6 - The Street	179	45	1217	785	0.228	180	224	0.5	0.3	5.953	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	909	227	175	1442	0.630	916	961	3.4	1.7	6.922	A
2 - Maudlin Lane	12	3	1079	644	0.019	12	12	0.0	0.0	5.694	A
3 - Clays Hill	449	112	797	869	0.517	454	295	2.5	1.1	8.797	A
4 - A283 North	653	163	449	1179	0.554	657	801	2.4	1.3	6.970	A
5 - Castle Lane	81	20	1085	581	0.139	81	22	0.3	0.2	7.212	A
6 - The Street	150	37	986	925	0.162	150	179	0.3	0.2	4.651	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	86.96	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1442	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	356	100.000
4 - A283 North		ONE HOUR	✓	1019	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	305	1061	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	236	2	0	26	3	89
	4 - A283 North	888	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.10	164.57	80.8	F	1323	1985
2 - Maudlin Lane	0.05	10.54	0.1	B	15	22
3 - Clays Hill	0.62	14.84	1.6	B	327	490
4 - A283 North	0.90	26.82	7.9	D	935	1403
5 - Castle Lane	0.16	10.63	0.2	B	52	78
6 - The Street	0.35	7.55	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1086	271	200	1503	0.722	1076	878	0.0	2.5	8.234	A
2 - Maudlin Lane	12	3	1249	614	0.020	12	27	0.0	0.0	5.979	A
3 - Clays Hill	268	67	948	814	0.329	266	312	0.0	0.5	6.551	A
4 - A283 North	767	192	312	1329	0.577	762	903	0.0	1.3	6.288	A
5 - Castle Lane	43	11	1017	639	0.067	43	57	0.0	0.1	6.031	A
6 - The Street	173	43	906	975	0.178	172	153	0.0	0.2	4.482	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1296	324	239	1480	0.876	1282	1052	2.5	6.1	16.993	C
2 - Maudlin Lane	14	4	1489	479	0.030	14	32	0.0	0.0	7.755	A
3 - Clays Hill	320	80	1131	717	0.446	319	372	0.5	0.8	9.011	A
4 - A283 North	916	229	373	1293	0.708	912	1077	1.3	2.3	9.346	A
5 - Castle Lane	51	13	1217	539	0.095	51	68	0.1	0.1	7.376	A
6 - The Street	207	52	1085	872	0.237	206	184	0.2	0.3	5.410	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1588	397	292	1450	1.095	1431	1275	6.1	45.3	75.358	F
2 - Maudlin Lane	18	4	1685	368	0.048	18	38	0.0	0.0	10.269	B
3 - Clays Hill	392	98	1276	640	0.612	389	426	0.8	1.5	14.172	B
4 - A283 North	1122	280	449	1249	0.899	1103	1216	2.3	7.1	22.267	C
5 - Castle Lane	63	16	1475	411	0.153	62	77	0.1	0.2	10.334	B
6 - The Street	253	63	1315	739	0.343	252	222	0.3	0.5	7.382	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1588	397	294	1449	1.096	1446	1291	45.3	80.8	164.570	F
2 - Maudlin Lane	18	4	1701	359	0.049	18	38	0.0	0.1	10.543	B
3 - Clays Hill	392	98	1289	634	0.618	392	430	1.5	1.6	14.845	B
4 - A283 North	1122	280	453	1247	0.900	1119	1228	7.1	7.9	26.815	D
5 - Castle Lane	63	16	1493	401	0.156	63	78	0.2	0.2	10.632	B
6 - The Street	253	63	1331	730	0.347	253	225	0.5	0.5	7.554	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1296	324	242	1479	0.876	1461	1077	80.8	39.7	150.765	F
2 - Maudlin Lane	14	4	1669	378	0.038	14	34	0.1	0.0	9.910	A
3 - Clays Hill	320	80	1272	643	0.498	322	412	1.6	1.0	11.319	B
4 - A283 North	916	229	384	1287	0.712	937	1210	7.9	2.6	10.884	B
5 - Castle Lane	51	13	1247	524	0.098	52	75	0.2	0.1	7.617	A
6 - The Street	207	52	1111	857	0.241	208	188	0.5	0.3	5.552	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1086	271	202	1502	0.723	1233	890	39.7	2.7	21.895	C
2 - Maudlin Lane	12	3	1407	525	0.023	12	28	0.0	0.0	7.014	A
3 - Clays Hill	268	67	1072	748	0.358	270	346	1.0	0.6	7.557	A
4 - A283 North	767	192	322	1323	0.580	772	1020	2.6	1.4	6.586	A
5 - Castle Lane	43	11	1031	632	0.068	43	63	0.1	0.1	6.113	A
6 - The Street	173	43	918	968	0.179	174	156	0.3	0.2	4.537	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	38.68	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-6	3 - Clays Hill

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1196	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	598	100.000
4 - A283 North		ONE HOUR	✓	868	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	199	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	4	296	876	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	417	0	0	53	3	125
	4 - A283 North	772	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	18	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	3
	4 - A283 North	9	14	0	0	0	2
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	0.94	35.63	12.2	E	1097	1646
2 - Maudlin Lane	0.05	9.78	0.0	A	15	22
3 - Clays Hill	0.97	76.38	13.5	F	549	823
4 - A283 North	0.89	27.93	7.0	D	796	1195
5 - Castle Lane	0.35	16.30	0.5	C	98	147
6 - The Street	0.33	8.15	0.5	A	183	274

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	900	225	174	1443	0.624	894	948	0.0	1.6	6.486	A
2 - Maudlin Lane	12	3	1056	657	0.018	12	12	0.0	0.0	5.581	A
3 - Clays Hill	450	113	779	878	0.513	446	289	0.0	1.0	8.254	A
4 - A283 North	653	163	442	1183	0.552	649	783	0.0	1.2	6.679	A
5 - Castle Lane	81	20	1069	589	0.137	80	22	0.0	0.2	7.065	A
6 - The Street	150	37	972	933	0.161	149	176	0.0	0.2	4.586	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1075	269	208	1424	0.755	1070	1135	1.6	3.0	10.015	B
2 - Maudlin Lane	14	4	1264	542	0.027	14	14	0.0	0.0	6.819	A
3 - Clays Hill	538	134	932	792	0.678	534	345	1.0	2.0	13.703	B
4 - A283 North	780	195	528	1135	0.687	777	938	1.2	2.1	9.930	A
5 - Castle Lane	96	24	1279	481	0.200	96	26	0.2	0.2	9.333	A
6 - The Street	179	45	1164	817	0.219	179	211	0.2	0.3	5.640	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1317	329	254	1399	0.941	1287	1361	3.0	10.4	26.822	D
2 - Maudlin Lane	18	4	1524	399	0.044	18	17	0.0	0.0	9.439	A
3 - Clays Hill	658	165	1124	685	0.961	628	417	2.0	9.7	47.706	E
4 - A283 North	956	239	623	1083	0.882	940	1129	2.1	6.2	22.870	C
5 - Castle Lane	118	29	1531	352	0.335	117	31	0.2	0.5	15.247	C
6 - The Street	219	55	1397	675	0.325	218	252	0.3	0.5	7.878	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1317	329	255	1399	0.942	1310	1383	10.4	12.2	35.630	E
2 - Maudlin Lane	18	4	1547	386	0.046	18	18	0.0	0.0	9.783	A
3 - Clays Hill	658	165	1142	675	0.975	643	423	9.7	13.5	76.377	F
4 - A283 North	956	239	638	1075	0.889	952	1147	6.2	7.0	27.932	D
5 - Castle Lane	118	29	1558	338	0.348	118	32	0.5	0.5	16.302	C
6 - The Street	219	55	1420	660	0.332	219	256	0.5	0.5	8.155	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1075	269	210	1423	0.756	1111	1189	12.2	3.2	12.749	B
2 - Maudlin Lane	14	4	1306	518	0.028	14	15	0.0	0.0	7.146	A
3 - Clays Hill	538	134	964	775	0.694	582	357	13.5	2.4	22.575	C
4 - A283 North	780	195	573	1110	0.703	798	973	7.0	2.5	12.148	B
5 - Castle Lane	96	24	1345	448	0.215	97	27	0.5	0.3	10.288	B
6 - The Street	179	45	1219	784	0.228	180	223	0.5	0.3	5.966	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	900	225	175	1442	0.625	907	964	3.2	1.7	6.803	A
2 - Maudlin Lane	12	3	1070	649	0.019	12	12	0.0	0.0	5.650	A
3 - Clays Hill	450	113	789	872	0.516	455	292	2.4	1.1	8.742	A
4 - A283 North	653	163	451	1178	0.555	658	794	2.5	1.3	6.987	A
5 - Castle Lane	81	20	1087	580	0.139	81	22	0.3	0.2	7.229	A
6 - The Street	150	37	989	924	0.162	150	179	0.3	0.2	4.657	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	83.46	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1435	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	354	100.000
4 - A283 North		ONE HOUR	✓	1011	100.000
5 - Castle Lane		ONE HOUR	✓	57	100.000
6 - The Street		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	303	1056	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	234	2	0	26	3	89
	4 - A283 North	880	9	31	0	9	82
	5 - Castle Lane	25	0	5	8	0	19
	6 - The Street	18	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	1	0	0	0	0	4
	4 - A283 North	2	0	7	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.09	158.10	77.3	F	1317	1975
2 - Maudlin Lane	0.05	10.54	0.1	B	15	22
3 - Clays Hill	0.62	14.72	1.6	B	325	487
4 - A283 North	0.89	25.21	7.4	D	928	1392
5 - Castle Lane	0.15	10.47	0.2	B	52	78
6 - The Street	0.34	7.46	0.5	A	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1080	270	200	1503	0.719	1070	871	0.0	2.5	8.143	A
2 - Maudlin Lane	12	3	1243	617	0.020	12	27	0.0	0.0	5.950	A
3 - Clays Hill	267	67	945	816	0.327	265	311	0.0	0.5	6.511	A
4 - A283 North	761	190	310	1330	0.572	756	899	0.0	1.3	6.219	A
5 - Castle Lane	43	11	1009	643	0.067	43	57	0.0	0.1	5.995	A
6 - The Street	173	43	899	979	0.177	172	153	0.0	0.2	4.459	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1290	323	239	1480	0.871	1276	1043	2.5	5.9	16.585	C
2 - Maudlin Lane	14	4	1483	482	0.030	14	32	0.0	0.0	7.702	A
3 - Clays Hill	318	80	1127	719	0.443	317	371	0.5	0.8	8.926	A
4 - A283 North	909	227	371	1294	0.702	905	1073	1.3	2.3	9.162	A
5 - Castle Lane	51	13	1209	543	0.094	51	68	0.1	0.1	7.312	A
6 - The Street	207	52	1076	877	0.236	206	184	0.2	0.3	5.370	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1580	395	292	1450	1.090	1429	1265	5.9	43.6	73.015	F
2 - Maudlin Lane	18	4	1684	369	0.048	18	38	0.0	0.0	10.247	B
3 - Clays Hill	390	97	1276	640	0.609	387	425	0.8	1.5	14.043	B
4 - A283 North	1113	278	447	1250	0.891	1095	1215	2.3	6.7	21.278	C
5 - Castle Lane	63	16	1465	415	0.151	62	78	0.1	0.2	10.197	B
6 - The Street	253	63	1305	745	0.340	252	223	0.3	0.5	7.300	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1580	395	294	1449	1.091	1445	1280	43.6	77.3	158.101	F
2 - Maudlin Lane	18	4	1701	359	0.049	18	38	0.0	0.1	10.535	B
3 - Clays Hill	390	97	1289	634	0.615	390	429	1.5	1.6	14.720	B
4 - A283 North	1113	278	451	1248	0.892	1111	1228	6.7	7.4	25.212	D
5 - Castle Lane	63	16	1483	406	0.154	63	78	0.2	0.2	10.473	B
6 - The Street	253	63	1321	736	0.344	253	225	0.5	0.5	7.460	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1290	323	242	1479	0.872	1460	1066	77.3	34.7	140.654	F
2 - Maudlin Lane	14	4	1668	378	0.038	14	34	0.1	0.0	9.896	A
3 - Clays Hill	318	80	1271	643	0.495	320	411	1.6	1.0	11.252	B
4 - A283 North	909	227	383	1287	0.706	928	1209	7.4	2.5	10.536	B
5 - Castle Lane	51	13	1236	530	0.097	52	75	0.2	0.1	7.536	A
6 - The Street	207	52	1100	863	0.240	208	187	0.5	0.3	5.503	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1080	270	202	1502	0.719	1209	882	34.7	2.7	18.259	C
2 - Maudlin Lane	12	3	1382	539	0.022	12	28	0.0	0.0	6.832	A
3 - Clays Hill	267	67	1053	758	0.352	268	341	1.0	0.5	7.379	A
4 - A283 North	761	190	320	1324	0.575	766	1002	2.5	1.4	6.499	A
5 - Castle Lane	43	11	1023	636	0.067	43	62	0.1	0.1	6.074	A
6 - The Street	173	43	910	972	0.178	174	156	0.3	0.2	4.512	A

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

PROJECT:	**Shoreham Clay Hill Roundabout**
JOB No:	**5201**
CALCS BY:	**C.Turner**
DATE:	**11.11.21**
DRG:	**5201-GP-05A**

BUDGET COST ESTIMATE FOR
OFF-SITE HIGHWAY WORKS

Clay Hill Roundabout

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	2000.00	2,000.00
1.02	REMOVE CONCRETE KERBS	78.00	m	15.00	1,170.00
1.03	REMOVE EDGING KERB	8.00	m	3.00	24.00
1.04	REMOVE LIGHTING COLUMNS	2.00	ITEM	750.00	1,500.00
1.05	REMOVE GULLIES	2.00	No	450.00	900.00
1.06	REMOVE TRAFFIC SIGNS	3.00	No	350.00	1,050.00
1.07	REMOVE BOLLARDS	0.00	No	250.00	0.00
					6,644.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	57.00	Cum	22.00	1,254.00
2.02	EXCAVATE HARD AND DISPOSE	5.00	Cum	55.00	275.00
2.03	DISPOSE U/S	62.00	Cum	50.00	3,100.00
2.04	FORMATION AND SUB-FORMATION	85.00	Sqm	1.20	102.00
2.05	PLANE CARRIAGEWAY (40mm)	332.00	Sqm	3.50	1,162.00
2.06	PLANE FOOTWAY (20mm)	30.00	Sqm	2.50	75.00
2.07	IMPORT CAPPING AND COMPACT	20.00	Cum	18.00	360.00
					6,328.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	17.00	Cum	25.00	425.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	76.00	Sqm	22.00	1,672.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	76.00	Sqm	24.00	1,824.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	408.00	Sqm	18.00	7,344.00
3.05	CONCRETE KERBING	82.00	m	20.00	1,640.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	12.00	m	12.00	144.00
3.08	SUB BASE - FOOTWAY(150mm)	3.50	Cum	18.00	63.00
3.09	FOOTWAY SURFACE COURSE (20mm)	51.00	Sqm	8.00	408.00
3.10	FOOTWAY BINDER COURSE (50mm)	21.00	Sqm	11.00	231.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	8.00	Sqm	30.00	240.00
					13,991.00

APPENDIX 3.5
BUDGET COST ESTIMATE FOR
OFF-SITE HIGHWAY WORKS

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	2.00	No	600.00	1,200.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	2.00	No	500.00	1,000.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					2,200.00
5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	1500.00	1500.00
5.02	BOLLARDS	0.00	No	600.00	0.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	2.00	No	750.00	1500.00
5.04	ADS and POSTs	1.00	No	1250.00	1250.00
					4,250.00
7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	3500.00	3,500.00
7.02	STREET LIGHTING COLUMN	0.00	No.	1800.00	0.00
7.03	LIGHTING DUCTING	0.00	m	20.00	0.00
7.04	TOPSOIL & SEED	0.00	Sqm	12.50	0.00
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	2000.00	2,000.00
					5,500.00

	SUMMARY	
	Preliminaries 15%	£5,011.95
1.0	Site Clearance	£6,644.00
2.0	Earthworks	£6,328.00
3.0	Pavement	£13,991.00
4.0	Drainage	£2,200.00
5.0	Signs and Markings	£4,250.00
6.0	Other	£5,500.00
		£43,925

CONTINGENCY 10%	£4,392
CIVILS TOTAL	£48,317

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE APPROACH LANE WILL BE RESURFACED

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

4.0 Junction 4 – A283 / A2037 Roundabout

4.1 ARCADY Output: 2033 Baseline Scenario
4.2 ARCADY Outputs: Proposed Development Scenarios

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 4 - A - A283 + A2037 - Existing Junction - 2033 Base incl permitted.j9
Path: D:\5201 Shoreham\Amol\4 - A283 + A2037
Report generation date: 11/11/2021 15:19:40

»2033 Base including permitted, AM
»2033 Base including permitted, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Base including permitted													
1 - A2037	3.9	18.83	0.81	C	21.09	C	1 % [3 - A283 North]	3.6	16.03	0.79	C	16.83	C	4 % [2 - A283 South]
2 - A283 South	4.8	12.10	0.83	B				9.1	20.99	0.91	C			
3 - A283 North	11.6	31.87	0.94	D				4.1	11.92	0.81	B			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base including permitted, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	21.09	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	3 - A283 North

Arms

Arms

Arm	Name	Description
1	A2037	
2	A283 South	
3	A283 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A2037	3.40	8.80	16.3	14.8	32.0	21.0	
2 - A283 South	3.30	9.50	18.5	193.4	32.0	14.0	
3 - A283 North	3.60	8.60	14.8	38.0	32.0	17.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A2037	0.690	1849
2 - A283 South	0.767	2096
3 - A283 North	0.725	1940

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	712	100.000
2 - A283 South		ONE HOUR	✓	1345	100.000
3 - A283 North		ONE HOUR	✓	1266	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	473	239
	2 - A283 South	418	2	925
	3 - A283 North	248	1018	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.81	18.83	3.9	C	653	980
2 - A283 South	0.83	12.10	4.8	B	1234	1851
3 - A283 North	0.94	31.87	11.6	D	1162	1743

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	536	134	763	1220	0.439	533	499	0.0	0.8	5.217	A
2 - A283 South	1013	253	179	1840	0.550	1008	1117	0.0	1.2	4.300	A
3 - A283 North	953	238	315	1596	0.597	947	872	0.0	1.5	5.503	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	640	160	913	1115	0.574	638	597	0.8	1.3	7.512	A
2 - A283 South	1209	302	214	1813	0.667	1206	1337	1.2	2.0	5.902	A
3 - A283 North	1138	285	377	1551	0.734	1133	1044	1.5	2.7	8.520	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	784	196	1100	984	0.797	775	724	1.3	3.6	16.530	C
2 - A283 South	1481	370	260	1778	0.833	1470	1614	2.0	4.6	11.323	B
3 - A283 North	1394	348	459	1491	0.935	1365	1271	2.7	10.0	24.240	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	784	196	1118	971	0.807	783	732	3.6	3.9	18.826	C
2 - A283 South	1481	370	263	1776	0.834	1480	1638	4.6	4.8	12.100	B
3 - A283 North	1394	348	462	1489	0.936	1388	1281	10.0	11.6	31.866	D

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	640	160	945	1093	0.586	650	609	3.9	1.4	8.308	A
2 - A283 South	1209	302	218	1810	0.668	1220	1377	4.8	2.1	6.217	A
3 - A283 North	1138	285	381	1548	0.735	1173	1057	11.6	2.9	10.432	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	536	134	772	1214	0.442	539	503	1.4	0.8	5.353	A
2 - A283 South	1013	253	181	1839	0.551	1016	1130	2.1	1.2	4.392	A
3 - A283 North	953	238	317	1594	0.598	959	879	2.9	1.5	5.716	A

2033 Base including permitted, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	16.83	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	4	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	760	100.000
2 - A283 South		ONE HOUR	✓	1510	100.000
3 - A283 North		ONE HOUR	✓	1150	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	471	284
	2 - A283 South	406	8	1096
	3 - A283 North	163	987	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	29	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.79	16.03	3.6	C	697	1046
2 - A283 South	0.91	20.99	9.1	C	1386	2078
3 - A283 North	0.81	11.92	4.1	B	1055	1583

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	572	143	745	1302	0.440	569	430	0.0	0.8	4.893	A
2 - A283 South	1137	284	216	1901	0.598	1131	1098	0.0	1.5	4.639	A
3 - A283 North	866	216	314	1673	0.517	862	1034	0.0	1.1	4.413	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	683	171	892	1200	0.569	681	514	0.8	1.3	6.913	A
2 - A283 South	1357	339	259	1869	0.726	1353	1314	1.5	2.6	6.920	A
3 - A283 North	1034	258	375	1628	0.635	1031	1237	1.1	1.7	6.003	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	837	209	1088	1064	0.786	828	624	1.3	3.4	14.770	B
2 - A283 South	1663	416	315	1826	0.911	1640	1601	2.6	8.3	17.499	C
3 - A283 North	1266	317	455	1570	0.806	1257	1500	1.7	3.9	11.197	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	837	209	1095	1059	0.790	836	631	3.4	3.6	16.030	C
2 - A283 South	1663	416	318	1824	0.912	1659	1613	8.3	9.1	20.987	C
3 - A283 North	1266	317	460	1566	0.808	1266	1517	3.9	4.1	11.916	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	683	171	902	1193	0.573	692	524	3.6	1.4	7.315	A
2 - A283 South	1357	339	263	1865	0.728	1383	1331	9.1	2.7	7.837	A
3 - A283 North	1034	258	384	1622	0.637	1043	1263	4.1	1.8	6.311	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	572	143	752	1298	0.441	574	434	1.4	0.8	4.995	A
2 - A283 South	1137	284	218	1900	0.598	1142	1108	2.7	1.5	4.780	A
3 - A283 North	866	216	317	1671	0.518	869	1043	1.8	1.1	4.503	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 4 - B - A283 + A2037 - Existing Junction - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\4 - A283 + A2037
Report generation date: 11/11/2021 15:27:11

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A2037	4.6	22.01	0.83	C	27.26	D	-2 % [3 - A283 North]	5.0	22.38	0.85	C	21.54	C	2 % [2 - A283 South]
2 - A283 South	6.3	15.37	0.87	C				11.4	25.77	0.93	D			
3 - A283 North	16.2	43.06	0.96	E				5.4	15.53	0.85	C			
Scenario 2 Total														
1 - A2037	4.5	21.59	0.83	C	25.98	D	-1 % [3 - A283 North]	4.0	17.87	0.81	C	20.39	C	2 % [2 - A283 South]
2 - A283 South	5.8	14.29	0.86	B				12.0	27.01	0.94	D			
3 - A283 North	15.3	40.96	0.96	E				4.6	13.30	0.83	B			
Scenario 3 Total														
1 - A2037	4.3	20.41	0.82	C	24.62	C	-1 % [3 - A283 North]	4.1	17.96	0.81	C	19.03	C	3 % [2 - A283 South]
2 - A283 South	5.7	13.96	0.86	B				10.6	24.12	0.93	C			
3 - A283 North	14.2	38.40	0.95	E				4.5	13.10	0.83	B			
Scenario 4 Total														
1 - A2037	4.5	21.38	0.83	C	24.81	C	-1 % [3 - A283 North]	3.8	17.00	0.80	C	18.21	C	3 % [2 - A283 South]
2 - A283 South	5.3	13.20	0.85	B				10.2	23.13	0.92	C			
3 - A283 North	14.5	39.02	0.96	E				4.3	12.59	0.82	B			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 4.2
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	27.26	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-2	3 - A283 North

Arms

Arms

Arm	Name	Description
1	A2037	
2	A283 South	
3	A283 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A2037	3.40	8.80	16.3	14.8	32.0	21.0	
2 - A283 South	3.30	9.50	18.5	193.4	32.0	14.0	
3 - A283 North	3.60	8.60	14.8	38.0	32.0	17.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A2037	0.690	1849
2 - A283 South	0.767	2096
3 - A283 North	0.725	1940

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	725	100.000
2 - A283 South		ONE HOUR	✓	1409	100.000
3 - A283 North		ONE HOUR	✓	1294	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	486	239
	2 - A283 South	436	2	971
	3 - A283 North	248	1046	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.83	22.01	4.6	C	665	998
2 - A283 South	0.87	15.37	6.3	C	1293	1939
3 - A283 North	0.96	43.06	16.2	E	1187	1781

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	546	136	784	1208	0.452	543	512	0.0	0.8	5.385	A
2 - A283 South	1061	265	179	1845	0.575	1055	1148	0.0	1.3	4.529	A
3 - A283 North	974	244	328	1589	0.613	968	906	0.0	1.6	5.740	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	652	163	938	1100	0.592	649	613	0.8	1.4	7.940	A
2 - A283 South	1267	317	214	1818	0.697	1263	1373	1.3	2.2	6.445	A
3 - A283 North	1163	291	393	1542	0.754	1158	1084	1.6	2.9	9.222	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	798	200	1122	971	0.822	787	741	1.4	4.1	18.572	C
2 - A283 South	1551	388	260	1783	0.870	1536	1649	2.2	6.0	13.826	B
3 - A283 North	1425	356	478	1481	0.962	1385	1318	2.9	12.9	29.509	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	798	200	1143	956	0.835	796	750	4.1	4.6	22.008	C
2 - A283 South	1551	388	262	1781	0.871	1550	1677	6.0	6.3	15.371	C
3 - A283 North	1425	356	482	1478	0.964	1412	1331	12.9	16.2	43.062	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	652	163	984	1068	0.610	664	630	4.6	1.6	9.169	A
2 - A283 South	1267	317	219	1814	0.698	1283	1429	6.3	2.4	6.966	A
3 - A283 North	1163	291	399	1538	0.756	1215	1103	16.2	3.2	12.805	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	546	136	794	1201	0.455	549	517	1.6	0.8	5.550	A
2 - A283 South	1061	265	181	1843	0.575	1065	1162	2.4	1.4	4.648	A
3 - A283 North	974	244	331	1587	0.614	981	915	3.2	1.6	6.002	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	21.54	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	775	100.000
2 - A283 South		ONE HOUR	✓	1545	100.000
3 - A283 North		ONE HOUR	✓	1191	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	486	284
	2 - A283 South	416	35	1094
	3 - A283 North	163	1028	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	7	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.85	22.38	5.0	C	711	1067
2 - A283 South	0.93	25.77	11.4	D	1418	2127
3 - A283 North	0.85	15.53	5.4	C	1093	1639

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	583	146	796	1268	0.460	580	437	0.0	0.8	5.211	A
2 - A283 South	1163	291	216	1902	0.612	1157	1160	0.0	1.6	4.794	A
3 - A283 North	897	224	341	1655	0.542	892	1032	0.0	1.2	4.693	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	697	174	953	1159	0.601	694	523	0.8	1.5	7.702	A
2 - A283 South	1389	347	259	1869	0.743	1384	1388	1.6	2.8	7.338	A
3 - A283 North	1071	268	408	1606	0.667	1068	1234	1.2	2.0	6.647	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	853	213	1159	1016	0.840	841	633	1.5	4.6	19.295	C
2 - A283 South	1701	425	314	1828	0.931	1672	1686	2.8	10.0	20.199	C
3 - A283 North	1311	328	494	1544	0.849	1299	1492	2.0	5.1	14.006	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	853	213	1169	1009	0.846	852	641	4.6	5.0	22.377	C
2 - A283 South	1701	425	318	1825	0.932	1696	1703	10.0	11.4	25.772	D
3 - A283 North	1311	328	500	1539	0.852	1310	1513	5.1	5.4	15.529	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	697	174	968	1149	0.607	711	536	5.0	1.6	8.469	A
2 - A283 South	1389	347	265	1865	0.745	1423	1414	11.4	3.0	8.725	A
3 - A283 North	1071	268	420	1598	0.670	1084	1268	5.4	2.1	7.187	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	583	146	803	1263	0.462	586	442	1.6	0.9	5.344	A
2 - A283 South	1163	291	219	1900	0.612	1169	1171	3.0	1.6	4.961	A
3 - A283 North	897	224	345	1652	0.543	900	1042	2.1	1.2	4.809	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	25.98	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	723	100.000
2 - A283 South		ONE HOUR	✓	1391	100.000
3 - A283 North		ONE HOUR	✓	1291	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	484	239
	2 - A283 South	431	2	958
	3 - A283 North	248	1043	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.83	21.59	4.5	C	663	995
2 - A283 South	0.86	14.29	5.8	B	1276	1915
3 - A283 North	0.96	40.96	15.3	E	1185	1777

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	544	136	782	1209	0.450	541	508	0.0	0.8	5.363	A
2 - A283 South	1047	262	179	1844	0.568	1042	1144	0.0	1.3	4.462	A
3 - A283 North	972	243	324	1591	0.611	966	897	0.0	1.5	5.699	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	650	162	935	1102	0.590	648	608	0.8	1.4	7.883	A
2 - A283 South	1250	313	214	1817	0.688	1247	1369	1.3	2.2	6.280	A
3 - A283 North	1161	290	388	1545	0.751	1155	1073	1.5	2.9	9.099	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	796	199	1120	972	0.819	785	736	1.4	4.1	18.315	C
2 - A283 South	1532	383	260	1782	0.860	1518	1646	2.2	5.6	13.027	B
3 - A283 North	1421	355	473	1484	0.958	1383	1305	2.9	12.4	28.567	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	796	199	1141	957	0.832	794	745	4.1	4.5	21.592	C
2 - A283 South	1532	383	263	1779	0.861	1530	1673	5.6	5.8	14.288	B
3 - A283 North	1421	355	476	1482	0.959	1410	1316	12.4	15.3	40.955	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	650	162	979	1071	0.607	662	624	4.5	1.6	9.032	A
2 - A283 South	1250	313	219	1813	0.690	1265	1422	5.8	2.3	6.732	A
3 - A283 North	1161	290	394	1541	0.753	1209	1090	15.3	3.2	12.301	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	544	136	792	1202	0.453	547	514	1.6	0.8	5.521	A
2 - A283 South	1047	262	181	1842	0.568	1051	1158	2.3	1.3	4.571	A
3 - A283 North	972	243	327	1589	0.612	978	905	3.2	1.6	5.952	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	20.39	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	767	100.000
2 - A283 South		ONE HOUR	✓	1552	100.000
3 - A283 North		ONE HOUR	✓	1172	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	478	284
	2 - A283 South	418	8	1126
	3 - A283 North	163	1009	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	29	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.81	17.87	4.0	C	704	1056
2 - A283 South	0.94	27.01	12.0	D	1424	2136
3 - A283 North	0.83	13.30	4.6	B	1075	1613

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	577	144	762	1291	0.447	574	439	0.0	0.8	5.002	A
2 - A283 South	1168	292	216	1902	0.614	1162	1120	0.0	1.6	4.826	A
3 - A283 North	882	221	323	1667	0.529	878	1056	0.0	1.1	4.534	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	690	172	912	1187	0.581	687	525	0.8	1.4	7.174	A
2 - A283 South	1395	349	259	1869	0.746	1390	1340	1.6	2.9	7.429	A
3 - A283 North	1054	263	386	1621	0.650	1051	1263	1.1	1.8	6.278	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	844	211	1111	1049	0.805	835	635	1.4	3.8	16.151	C
2 - A283 South	1709	427	315	1827	0.935	1678	1631	2.9	10.5	20.899	C
3 - A283 North	1290	323	466	1563	0.826	1280	1527	1.8	4.4	12.296	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	844	211	1119	1043	0.810	844	643	3.8	4.0	17.865	C
2 - A283 South	1709	427	318	1824	0.937	1703	1645	10.5	12.0	27.014	D
3 - A283 North	1290	323	473	1558	0.828	1290	1548	4.4	4.6	13.303	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	690	172	924	1178	0.585	700	538	4.0	1.4	7.681	A
2 - A283 South	1395	349	264	1866	0.748	1431	1360	12.0	3.1	8.925	A
3 - A283 North	1054	263	397	1613	0.653	1064	1297	4.6	1.9	6.683	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	577	144	768	1286	0.449	580	443	1.4	0.8	5.113	A
2 - A283 South	1168	292	219	1900	0.615	1174	1130	3.1	1.6	4.997	A
3 - A283 North	882	221	326	1665	0.530	885	1067	1.9	1.1	4.638	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	24.62	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	717	100.000
2 - A283 South		ONE HOUR	✓	1385	100.000
3 - A283 North		ONE HOUR	✓	1284	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	478	239
	2 - A283 South	429	2	954
	3 - A283 North	248	1036	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.82	20.41	4.3	C	658	987
2 - A283 South	0.86	13.96	5.7	B	1271	1906
3 - A283 North	0.95	38.40	14.2	E	1178	1767

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	540	135	777	1212	0.445	537	507	0.0	0.8	5.306	A
2 - A283 South	1043	261	179	1843	0.566	1038	1134	0.0	1.3	4.440	A
3 - A283 North	967	242	323	1592	0.607	961	894	0.0	1.5	5.649	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	645	161	929	1105	0.583	642	607	0.8	1.4	7.734	A
2 - A283 South	1245	311	214	1816	0.686	1242	1357	1.3	2.1	6.228	A
3 - A283 North	1154	289	386	1546	0.747	1149	1069	1.5	2.8	8.949	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	789	197	1114	976	0.809	780	734	1.4	3.9	17.547	C
2 - A283 South	1525	381	260	1781	0.856	1512	1634	2.1	5.4	12.783	B
3 - A283 North	1414	353	470	1485	0.952	1378	1301	2.8	11.7	27.402	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	789	197	1135	961	0.821	788	743	3.9	4.3	20.406	C
2 - A283 South	1525	381	263	1779	0.857	1524	1660	5.4	5.7	13.963	B
3 - A283 North	1414	353	474	1483	0.954	1404	1312	11.7	14.2	38.400	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	645	161	969	1077	0.598	656	621	4.3	1.5	8.749	A
2 - A283 South	1245	311	219	1813	0.687	1259	1406	5.7	2.2	6.654	A
3 - A283 North	1154	289	392	1542	0.749	1199	1086	14.2	3.1	11.743	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	540	135	786	1205	0.448	543	512	1.5	0.8	5.455	A
2 - A283 South	1043	261	181	1842	0.566	1046	1148	2.2	1.3	4.546	A
3 - A283 North	967	242	326	1590	0.608	973	902	3.1	1.6	5.889	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	19.03	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	768	100.000
2 - A283 South		ONE HOUR	✓	1534	100.000
3 - A283 North		ONE HOUR	✓	1172	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	479	284
	2 - A283 South	412	8	1114
	3 - A283 North	163	1009	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	29	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.81	17.96	4.1	C	705	1057
2 - A283 South	0.93	24.12	10.6	C	1408	2111
3 - A283 North	0.83	13.10	4.5	B	1075	1613

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	578	145	762	1291	0.448	575	434	0.0	0.8	5.007	A
2 - A283 South	1155	289	216	1902	0.607	1149	1120	0.0	1.5	4.744	A
3 - A283 North	882	221	318	1671	0.528	878	1047	0.0	1.1	4.516	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	690	173	912	1187	0.582	688	520	0.8	1.4	7.187	A
2 - A283 South	1379	345	259	1869	0.738	1374	1341	1.5	2.7	7.203	A
3 - A283 North	1054	263	381	1625	0.648	1051	1252	1.1	1.8	6.237	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	846	211	1111	1049	0.806	836	630	1.4	3.8	16.229	C
2 - A283 South	1689	422	315	1827	0.925	1662	1632	2.7	9.5	19.320	C
3 - A283 North	1290	323	460	1567	0.823	1280	1516	1.8	4.3	12.145	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	846	211	1119	1043	0.811	845	637	3.8	4.1	17.963	C
2 - A283 South	1689	422	318	1824	0.926	1684	1646	9.5	10.6	24.117	C
3 - A283 North	1290	323	467	1562	0.826	1290	1535	4.3	4.5	13.098	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	690	173	924	1179	0.586	701	531	4.1	1.4	7.695	A
2 - A283 South	1379	345	264	1866	0.739	1410	1361	10.6	2.9	8.406	A
3 - A283 North	1054	263	391	1618	0.651	1064	1283	4.5	1.9	6.619	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	578	145	768	1286	0.449	581	439	1.4	0.8	5.118	A
2 - A283 South	1155	289	219	1900	0.608	1160	1130	2.9	1.6	4.902	A
3 - A283 North	882	221	321	1668	0.529	885	1057	1.9	1.1	4.616	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	24.81	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	722	100.000
2 - A283 South		ONE HOUR	✓	1370	100.000
3 - A283 North		ONE HOUR	✓	1289	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	483	239
	2 - A283 South	425	2	943
	3 - A283 North	248	1041	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.83	21.38	4.5	C	663	994
2 - A283 South	0.85	13.20	5.3	B	1257	1886
3 - A283 North	0.96	39.02	14.5	E	1183	1774

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	544	136	780	1210	0.449	540	504	0.0	0.8	5.350	A
2 - A283 South	1031	258	179	1842	0.560	1026	1142	0.0	1.3	4.386	A
3 - A283 North	970	243	320	1594	0.609	964	885	0.0	1.5	5.661	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	649	162	933	1103	0.589	647	603	0.8	1.4	7.851	A
2 - A283 South	1232	308	214	1815	0.679	1228	1366	1.3	2.1	6.101	A
3 - A283 North	1159	290	383	1549	0.748	1153	1060	1.5	2.9	8.985	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	795	199	1119	973	0.817	784	730	1.4	4.0	18.194	C
2 - A283 South	1508	377	260	1780	0.847	1496	1644	2.1	5.1	12.187	B
3 - A283 North	1419	355	466	1488	0.953	1383	1290	2.9	11.9	27.697	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	795	199	1140	958	0.830	793	739	4.0	4.5	21.381	C
2 - A283 South	1508	377	263	1778	0.848	1507	1671	5.1	5.3	13.197	B
3 - A283 North	1419	355	470	1486	0.955	1409	1300	11.9	14.5	39.019	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	649	162	974	1074	0.604	661	618	4.5	1.6	8.947	A
2 - A283 South	1232	308	219	1812	0.680	1244	1416	5.3	2.2	6.484	A
3 - A283 North	1159	290	388	1545	0.750	1204	1075	14.5	3.1	11.870	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	544	136	790	1203	0.452	546	509	1.6	0.8	5.506	A
2 - A283 South	1031	258	181	1841	0.560	1035	1156	2.2	1.3	4.489	A
3 - A283 North	970	243	323	1592	0.609	977	893	3.1	1.6	5.905	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	18.21	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	764	100.000
2 - A283 South		ONE HOUR	✓	1527	100.000
3 - A283 North		ONE HOUR	✓	1162	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	475	284
	2 - A283 South	411	8	1108
	3 - A283 North	163	999	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	29	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.80	17.00	3.8	C	701	1052
2 - A283 South	0.92	23.13	10.2	C	1401	2102
3 - A283 North	0.82	12.59	4.3	B	1066	1599

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	575	144	754	1296	0.444	572	434	0.0	0.8	4.952	A
2 - A283 South	1150	287	216	1902	0.605	1144	1110	0.0	1.5	4.713	A
3 - A283 North	875	219	318	1671	0.524	870	1042	0.0	1.1	4.474	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	687	172	903	1193	0.576	685	519	0.8	1.3	7.057	A
2 - A283 South	1373	343	259	1869	0.734	1368	1329	1.5	2.7	7.116	A
3 - A283 North	1045	261	380	1625	0.643	1042	1247	1.1	1.8	6.141	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	841	210	1100	1056	0.797	832	629	1.3	3.6	15.510	C
2 - A283 South	1681	420	315	1826	0.921	1656	1618	2.7	9.1	18.763	C
3 - A283 North	1279	320	460	1567	0.816	1270	1511	1.8	4.2	11.740	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	841	210	1108	1050	0.801	840	636	3.6	3.8	17.001	C
2 - A283 South	1681	420	318	1824	0.922	1677	1631	9.1	10.2	23.131	C
3 - A283 North	1279	320	466	1563	0.819	1279	1529	4.2	4.3	12.586	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	687	172	914	1185	0.580	697	530	3.8	1.4	7.509	A
2 - A283 South	1373	343	263	1866	0.736	1402	1347	10.2	2.9	8.226	A
3 - A283 North	1045	261	389	1619	0.645	1055	1276	4.3	1.9	6.489	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	575	144	761	1291	0.445	578	438	1.4	0.8	5.061	A
2 - A283 South	1150	287	218	1900	0.605	1155	1120	2.9	1.6	4.866	A
3 - A283 North	875	219	321	1669	0.524	878	1053	1.9	1.1	4.568	A

5.0 Junction 7 – A283 / A27 Slips Roundabout

5.1 ARCADY Output: 2033 Baseline Scenario
5.2 ARCADY Outputs: Proposed Development Scenarios
5.3 Proposed Junction Improvements
5.4 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
5.5 Budget Cost Estimate for Off-Site Highway Works

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 7 - A - A27 Slips - Existing Junction - 2033 Base incl permitted.j9
Path: D:\5201 Shoreham\Amol\7 - A283 + A27 Slips
Report generation date: 11/11/2021 15:40:36

»2033 Base including permitted, AM
»2033 Base including permitted, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Base including permitted													
1 - A27 Westbound Slips	1.4	4.96	0.59	A	56.19	F	-13 % [2 - A283 South]	18.5	39.78	0.97	E	58.86	F	-13 % [2 - A283 South]
2 - A283 South	58.1	171.06	1.09	F				58.3	187.49	1.11	F			
3 - A283 North	9.5	24.56	0.92	C				4.2	10.89	0.81	B			
4 - A27 Eastbound Slips	0.5	3.42	0.34	A				0.4	3.22	0.31	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

APPENDIX 5.1
ARCADY OUTPUT: 2033 BASELINE SCENARIO

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base including permitted, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	56.19	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	2 - A283 South

Arms

Arms

Arm	Name	Description
1	A27 Westbound Slips	
2	A283 South	
3	A283 North	
4	A27 Eastbound Slips	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 Westbound Slips	6.80	7.40	12.2	46.9	127.6	19.0	
2 - A283 South	4.00	9.70	4.1	32.1	127.6	48.0	
3 - A283 North	4.90	7.00	11.5	88.0	127.6	13.0	
4 - A27 Eastbound Slips	6.40	6.60	11.5	72.0	127.6	23.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 Westbound Slips	0.552	2364
2 - A283 South	0.404	1462
3 - A283 North	0.517	2069
4 - A27 Eastbound Slips	0.516	2116

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base including permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	949	100.000
2 - A283 South		ONE HOUR	✓	1010	100.000
3 - A283 North		ONE HOUR	✓	1348	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	483	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	569	76
	2 - A283 South	196	0	377	437
	3 - A283 North	266	378	0	704
	4 - A27 Eastbound Slips	0	244	239	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	4	4	0	4
	4 - A27 Eastbound Slips	0	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.59	4.96	1.4	A	871	1306
2 - A283 South	1.09	171.06	58.1	F	927	1390
3 - A283 North	0.92	24.56	9.5	C	1237	1855
4 - A27 Eastbound Slips	0.34	3.42	0.5	A	443	665

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	714	179	646	1938	0.369	712	345	0.0	0.6	2.933	A
2 - A283 South	760	190	663	1140	0.667	753	694	0.0	1.9	9.115	A
3 - A283 North	1015	254	529	1716	0.591	1009	887	0.0	1.4	5.053	A
4 - A27 Eastbound Slips	364	91	628	1727	0.211	363	910	0.0	0.3	2.639	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	853	213	772	1867	0.457	852	412	0.6	0.8	3.543	A
2 - A283 South	908	227	794	1088	0.834	898	831	1.9	4.5	17.989	C
3 - A283 North	1212	303	631	1663	0.729	1207	1061	1.4	2.6	7.811	A
4 - A27 Eastbound Slips	434	109	751	1663	0.261	434	1087	0.3	0.4	2.929	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1045	261	941	1774	0.589	1043	482	0.8	1.4	4.906	A
2 - A283 South	1112	278	971	1017	1.093	997	1012	4.5	33.2	81.120	F
3 - A283 North	1484	371	709	1623	0.914	1461	1260	2.6	8.5	19.825	C
4 - A27 Eastbound Slips	532	133	891	1589	0.335	531	1278	0.4	0.5	3.400	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1045	261	947	1771	0.590	1045	489	1.4	1.4	4.959	A
2 - A283 South	1112	278	973	1016	1.094	1012	1018	33.2	58.1	171.058	F
3 - A283 North	1484	371	718	1618	0.917	1480	1268	8.5	9.5	24.559	C
4 - A27 Eastbound Slips	532	133	904	1583	0.336	532	1295	0.5	0.5	3.423	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	853	213	782	1862	0.458	855	452	1.4	0.9	3.586	A
2 - A283 South	908	227	797	1087	0.835	1069	841	58.1	17.9	132.565	F
3 - A283 North	1212	303	738	1608	0.754	1237	1127	9.5	3.2	10.326	B
4 - A27 Eastbound Slips	434	109	798	1638	0.265	435	1177	0.5	0.4	2.995	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	714	179	650	1935	0.369	716	361	0.9	0.6	2.954	A
2 - A283 South	760	190	666	1139	0.668	824	700	17.9	2.1	13.728	B
3 - A283 North	1015	254	574	1693	0.599	1022	917	3.2	1.5	5.415	A
4 - A27 Eastbound Slips	364	91	648	1716	0.212	364	947	0.4	0.3	2.662	A

2033 Base including permitted, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	58.86	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base including permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1599	100.000
2 - A283 South		ONE HOUR	✓	922	100.000
3 - A283 North		ONE HOUR	✓	1293	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	456	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	880	64
	2 - A283 South	202	0	447	273
	3 - A283 North	238	402	0	653
	4 - A27 Eastbound Slips	0	189	267	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	2	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.97	39.78	18.5	E	1467	2201
2 - A283 South	1.11	187.49	58.3	F	846	1269
3 - A283 North	0.81	10.89	4.2	B	1186	1780
4 - A27 Eastbound Slips	0.31	3.22	0.4	A	418	628

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1204	301	644	1984	0.607	1198	329	0.0	1.5	4.547	A
2 - A283 South	694	174	908	1082	0.642	687	934	0.0	1.7	8.974	A
3 - A283 North	973	243	402	1822	0.534	969	1193	0.0	1.1	4.197	A
4 - A27 Eastbound Slips	343	86	630	1763	0.195	342	741	0.0	0.2	2.533	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1437	359	770	1913	0.751	1432	393	1.5	2.9	7.390	A
2 - A283 South	829	207	1085	1010	0.821	819	1117	1.7	4.1	18.016	C
3 - A283 North	1162	291	479	1783	0.652	1160	1425	1.1	1.8	5.750	A
4 - A27 Eastbound Slips	410	102	753	1699	0.241	410	886	0.2	0.3	2.792	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1761	440	941	1818	0.968	1713	458	2.9	14.8	26.773	D
2 - A283 South	1015	254	1305	922	1.101	903	1349	4.1	32.1	86.150	F
3 - A283 North	1424	356	534	1755	0.811	1415	1674	1.8	4.1	10.323	B
4 - A27 Eastbound Slips	502	126	898	1624	0.309	502	1050	0.3	0.4	3.206	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1761	440	944	1817	0.969	1746	461	14.8	18.5	39.776	E
2 - A283 South	1015	254	1324	914	1.111	911	1366	32.1	58.3	187.493	F
3 - A283 North	1424	356	539	1752	0.812	1423	1696	4.1	4.2	10.892	B
4 - A27 Eastbound Slips	502	126	904	1621	0.310	502	1058	0.4	0.4	3.217	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1437	359	774	1911	0.752	1499	430	18.5	3.1	10.007	B
2 - A283 South	829	207	1125	994	0.834	977	1148	58.3	21.2	150.473	F
3 - A283 North	1162	291	563	1740	0.668	1171	1539	4.2	2.1	6.424	A
4 - A27 Eastbound Slips	410	102	794	1678	0.244	410	941	0.4	0.3	2.842	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1204	301	647	1981	0.608	1210	349	3.1	1.6	4.706	A
2 - A283 South	694	174	916	1078	0.644	771	942	21.2	1.9	14.859	B
3 - A283 North	973	243	446	1800	0.541	977	1241	2.1	1.2	4.392	A
4 - A27 Eastbound Slips	343	86	653	1751	0.196	344	770	0.3	0.2	2.557	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 7 - B - A27 Slips - Existing Junction - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\7 - A283 + A27 Slips
Report generation date: 11/11/2021 15:42:24

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A27 Westbound Slips	1.8	5.94	0.65	A	122.00	F	-19 % [2 - A283 South]	54.7	98.03	1.04	F	113.98	F	-18 % [2 - A283 South]
2 - A283 South	113.8	359.86	1.22	F				92.5	335.43	1.19	F			
3 - A283 North	36.5	75.17	1.02	F				12.9	29.53	0.94	D			
4 - A27 Eastbound Slips	0.6	3.82	0.39	A				0.6	3.68	0.36	A			
Scenario 2 Total														
1 - A27 Westbound Slips	1.8	5.84	0.64	A	111.27	F	-18 % [2 - A283 South]	40.1	76.07	1.02	F	93.33	F	-16 % [2 - A283 South]
2 - A283 South	110.3	344.43	1.21	F				80.0	262.99	1.16	F			
3 - A283 North	24.6	54.92	0.99	F				16.1	36.23	0.96	E			
4 - A27 Eastbound Slips	0.6	3.79	0.39	A				0.5	3.63	0.35	A			
Scenario 3 Total														
1 - A27 Westbound Slips	1.6	5.36	0.62	A	76.55	F	-15 % [2 - A283 South]	32.5	63.71	1.01	F	80.24	F	-15 % [2 - A283 South]
2 - A283 South	77.9	226.18	1.14	F				76.8	244.39	1.16	F			
3 - A283 North	18.3	43.45	0.97	E				6.9	16.75	0.88	C			
4 - A27 Eastbound Slips	0.6	3.59	0.36	A				0.5	3.43	0.34	A			
Scenario 4 Total														
1 - A27 Westbound Slips	1.7	5.73	0.64	A	102.66	F	-18 % [2 - A283 South]	28.0	56.65	1.00	F	74.51	F	-15 % [2 - A283 South]
2 - A283 South	108.9	338.51	1.21	F				71.0	225.90	1.14	F			
3 - A283 North	12.9	31.82	0.94	D				8.4	20.07	0.90	C			
4 - A27 Eastbound Slips	0.6	3.70	0.38	A				0.5	3.43	0.33	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 5.2
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	122.00	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-19	2 - A283 South

Arms

Arms

Arm	Name	Description
1	A27 Westbound Slips	
2	A283 South	
3	A283 North	
4	A27 Eastbound Slips	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 Westbound Slips	6.80	7.40	12.2	46.9	127.6	19.0	
2 - A283 South	4.00	9.70	4.1	32.1	127.6	48.0	
3 - A283 North	4.90	7.00	11.5	88.0	127.6	13.0	
4 - A27 Eastbound Slips	6.40	6.60	11.5	72.0	127.6	23.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 Westbound Slips	0.552	2364
2 - A283 South	0.404	1462
3 - A283 North	0.517	2069
4 - A27 Eastbound Slips	0.516	2116

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1013	100.000
2 - A283 South		ONE HOUR	✓	1063	100.000
3 - A283 North		ONE HOUR	✓	1532	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	555	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	633	76
	2 - A283 South	196	0	430	437
	3 - A283 North	345	408	0	779
	4 - A27 Eastbound Slips	0	244	311	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	3	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.65	5.94	1.8	A	930	1394
2 - A283 South	1.22	359.86	113.8	F	975	1463
3 - A283 North	1.02	75.17	36.5	F	1406	2109
4 - A27 Eastbound Slips	0.39	3.82	0.6	A	509	764

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	763	191	722	1902	0.401	760	404	0.0	0.7	3.147	A
2 - A283 South	800	200	765	1104	0.725	790	716	0.0	2.5	11.146	B
3 - A283 North	1153	288	528	1726	0.668	1145	1028	0.0	2.0	6.125	A
4 - A27 Eastbound Slips	418	104	709	1695	0.247	417	964	0.0	0.3	2.813	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	911	228	863	1823	0.499	909	480	0.7	1.0	3.932	A
2 - A283 South	956	239	916	1044	0.915	934	856	2.5	7.8	28.509	D
3 - A283 North	1377	344	625	1675	0.822	1368	1226	2.0	4.3	11.374	B
4 - A27 Eastbound Slips	499	125	845	1624	0.307	498	1148	0.3	0.4	3.195	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1115	279	1038	1726	0.646	1112	538	1.0	1.8	5.830	A
2 - A283 South	1170	293	1120	962	1.216	956	1030	7.8	61.4	142.195	F
3 - A283 North	1687	422	653	1661	1.016	1607	1424	4.3	24.2	41.896	E
4 - A27 Eastbound Slips	611	153	966	1561	0.391	610	1294	0.4	0.6	3.782	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1115	279	1047	1722	0.648	1115	546	1.8	1.8	5.935	A
2 - A283 South	1170	293	1123	961	1.218	961	1039	61.4	113.8	329.826	F
3 - A283 North	1687	422	656	1659	1.017	1637	1428	24.2	36.5	75.171	F
4 - A27 Eastbound Slips	611	153	982	1553	0.394	611	1311	0.6	0.6	3.821	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	911	228	899	1803	0.505	914	528	1.8	1.0	4.061	A
2 - A283 South	956	239	920	1042	0.917	1033	893	113.8	94.4	359.857	F
3 - A283 North	1377	344	684	1644	0.838	1500	1269	36.5	5.8	36.239	E
4 - A27 Eastbound Slips	499	125	928	1581	0.316	500	1256	0.6	0.5	3.333	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	763	191	729	1897	0.402	764	464	1.0	0.7	3.179	A
2 - A283 South	800	200	769	1102	0.726	1091	724	94.4	21.8	195.735	F
3 - A283 North	1153	288	707	1632	0.707	1167	1153	5.8	2.5	7.944	A
4 - A27 Eastbound Slips	418	104	775	1661	0.252	418	1099	0.5	0.3	2.900	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	113.98	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1659	100.000
2 - A283 South		ONE HOUR	✓	957	100.000
3 - A283 North		ONE HOUR	✓	1520	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	509	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	940	64
	2 - A283 South	202	0	482	273
	3 - A283 North	343	465	0	712
	4 - A27 Eastbound Slips	0	189	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	1.04	98.03	54.7	F	1522	2283
2 - A283 South	1.19	335.43	92.5	F	878	1317
3 - A283 North	0.94	29.53	12.9	D	1395	2092
4 - A27 Eastbound Slips	0.36	3.68	0.6	A	467	701

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1249	312	730	1937	0.645	1242	407	0.0	1.8	5.126	A
2 - A283 South	720	180	992	1048	0.687	712	980	0.0	2.1	10.453	B
3 - A283 North	1144	286	401	1829	0.626	1138	1302	0.0	1.6	5.159	A
4 - A27 Eastbound Slips	383	96	755	1702	0.225	382	784	0.0	0.3	2.725	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1491	373	873	1858	0.803	1483	485	1.8	3.9	9.401	A
2 - A283 South	860	215	1185	971	0.886	844	1172	2.1	6.2	25.592	D
3 - A283 North	1366	342	476	1791	0.763	1361	1553	1.6	3.1	8.257	A
4 - A27 Eastbound Slips	458	114	901	1626	0.281	457	935	0.3	0.4	3.080	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1827	457	1062	1753	1.042	1712	556	3.9	32.5	48.041	E
2 - A283 South	1054	263	1388	889	1.185	881	1386	6.2	49.5	127.110	F
3 - A283 North	1674	418	503	1777	0.942	1641	1765	3.1	11.1	22.562	C
4 - A27 Eastbound Slips	560	140	1058	1544	0.363	560	1086	0.4	0.6	3.654	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1827	457	1070	1749	1.045	1738	562	32.5	54.7	98.028	F
2 - A283 South	1054	263	1404	883	1.194	882	1404	49.5	92.5	296.631	F
3 - A283 North	1674	418	505	1776	0.942	1667	1781	11.1	12.9	29.530	D
4 - A27 Eastbound Slips	560	140	1072	1537	0.365	560	1099	0.6	0.6	3.683	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1491	373	888	1850	0.806	1692	509	54.7	4.6	41.986	E
2 - A283 South	860	215	1312	920	0.936	910	1267	92.5	80.2	335.425	F
3 - A283 North	1366	342	517	1770	0.772	1404	1705	12.9	3.5	10.755	B
4 - A27 Eastbound Slips	458	114	938	1607	0.285	458	982	0.6	0.4	3.138	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1249	312	736	1934	0.646	1260	477	4.6	1.9	5.426	A
2 - A283 South	720	180	1004	1044	0.690	1028	992	80.2	3.4	151.026	F
3 - A283 North	1144	286	559	1748	0.655	1151	1473	3.5	1.9	6.090	A
4 - A27 Eastbound Slips	383	96	829	1664	0.230	384	881	0.4	0.3	2.812	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	111.27	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1005	100.000
2 - A283 South		ONE HOUR	✓	1061	100.000
3 - A283 North		ONE HOUR	✓	1489	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	552	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	625	76
	2 - A283 South	196	0	428	437
	3 - A283 North	329	402	0	758
	4 - A27 Eastbound Slips	0	244	308	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	3	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.64	5.84	1.8	A	922	1383
2 - A283 South	1.21	344.43	110.3	F	974	1460
3 - A283 North	0.99	54.92	24.6	F	1366	2049
4 - A27 Eastbound Slips	0.39	3.79	0.6	A	507	760

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	757	189	715	1905	0.397	754	392	0.0	0.7	3.122	A
2 - A283 South	799	200	757	1107	0.722	789	712	0.0	2.5	10.997	B
3 - A283 North	1121	280	528	1724	0.650	1114	1018	0.0	1.8	5.832	A
4 - A27 Eastbound Slips	416	104	692	1703	0.244	414	949	0.0	0.3	2.791	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	903	226	855	1827	0.494	902	466	0.7	1.0	3.886	A
2 - A283 South	954	238	906	1048	0.910	934	851	2.5	7.5	27.622	D
3 - A283 North	1339	335	625	1673	0.800	1331	1214	1.8	3.8	10.274	B
4 - A27 Eastbound Slips	496	124	826	1634	0.304	496	1130	0.3	0.4	3.162	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1107	277	1034	1728	0.640	1103	527	1.0	1.7	5.733	A
2 - A283 South	1168	292	1108	967	1.208	960	1029	7.5	59.5	137.648	F
3 - A283 North	1639	410	656	1657	0.989	1582	1412	3.8	18.1	34.176	D
4 - A27 Eastbound Slips	608	152	954	1567	0.388	607	1284	0.4	0.6	3.747	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1107	277	1043	1723	0.642	1106	535	1.7	1.8	5.836	A
2 - A283 South	1168	292	1111	966	1.209	965	1039	59.5	110.3	318.707	F
3 - A283 North	1639	410	660	1656	0.990	1613	1417	18.1	24.6	54.919	F
4 - A27 Eastbound Slips	608	152	970	1558	0.390	608	1303	0.6	0.6	3.786	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	903	226	880	1813	0.498	907	505	1.8	1.0	3.982	A
2 - A283 South	954	238	910	1046	0.912	1037	877	110.3	89.5	344.434	F
3 - A283 North	1339	335	687	1641	0.816	1418	1259	24.6	4.8	20.734	C
4 - A27 Eastbound Slips	496	124	888	1601	0.310	497	1217	0.6	0.5	3.261	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	757	189	721	1901	0.398	758	452	1.0	0.7	3.154	A
2 - A283 South	799	200	761	1106	0.723	1093	719	89.5	15.9	178.087	F
3 - A283 North	1121	280	710	1629	0.688	1131	1145	4.8	2.3	7.367	A
4 - A27 Eastbound Slips	416	104	757	1669	0.249	416	1083	0.5	0.3	2.873	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	93.33	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-16	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1632	100.000
2 - A283 South		ONE HOUR	✓	947	100.000
3 - A283 North		ONE HOUR	✓	1543	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	488	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	913	64
	2 - A283 South	202	0	472	273
	3 - A283 North	350	470	0	723
	4 - A27 Eastbound Slips	0	189	299	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	1.02	76.07	40.1	F	1498	2246
2 - A283 South	1.16	262.99	80.0	F	869	1303
3 - A283 North	0.96	36.23	16.1	E	1416	2124
4 - A27 Eastbound Slips	0.35	3.63	0.5	A	448	672

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1229	307	718	1943	0.632	1222	412	0.0	1.7	4.945	A
2 - A283 South	713	178	956	1063	0.671	705	984	0.0	2.0	9.862	A
3 - A283 North	1162	290	402	1829	0.635	1155	1259	0.0	1.7	5.284	A
4 - A27 Eastbound Slips	367	92	764	1696	0.217	366	792	0.0	0.3	2.704	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1467	367	859	1865	0.786	1460	492	1.7	3.5	8.719	A
2 - A283 South	851	213	1142	988	0.862	838	1176	2.0	5.3	22.302	C
3 - A283 North	1387	347	478	1790	0.775	1381	1503	1.7	3.3	8.654	A
4 - A27 Eastbound Slips	439	110	913	1619	0.271	438	946	0.3	0.4	3.048	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1797	449	1042	1764	1.019	1709	567	3.5	25.6	40.380	E
2 - A283 South	1043	261	1352	903	1.154	892	1399	5.3	42.9	110.809	F
3 - A283 North	1699	425	514	1771	0.959	1659	1729	3.3	13.3	25.781	D
4 - A27 Eastbound Slips	537	134	1072	1537	0.350	537	1101	0.4	0.5	3.597	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1797	449	1051	1759	1.022	1739	574	25.6	40.1	76.073	F
2 - A283 South	1043	261	1370	896	1.164	894	1420	42.9	80.0	254.298	F
3 - A283 North	1699	425	517	1770	0.960	1688	1748	13.3	16.1	36.226	E
4 - A27 Eastbound Slips	537	134	1088	1529	0.351	537	1117	0.5	0.5	3.630	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1467	367	877	1855	0.791	1611	526	40.1	4.0	23.202	C
2 - A283 South	851	213	1234	951	0.895	939	1254	80.0	58.1	262.994	F
3 - A283 North	1387	347	534	1761	0.788	1436	1639	16.1	3.9	12.571	B
4 - A27 Eastbound Slips	439	110	963	1593	0.275	439	1007	0.5	0.4	3.123	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1229	307	724	1940	0.633	1238	465	4.0	1.8	5.192	A
2 - A283 South	713	178	966	1058	0.674	936	995	58.1	2.2	74.586	F
3 - A283 North	1162	290	518	1770	0.656	1169	1385	3.9	1.9	6.074	A
4 - A27 Eastbound Slips	367	92	821	1667	0.220	368	866	0.4	0.3	2.771	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	76.55	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	980	100.000
2 - A283 South		ONE HOUR	✓	1027	100.000
3 - A283 North		ONE HOUR	✓	1442	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	600	76
	2 - A283 South	196	0	394	437
	3 - A283 North	303	391	0	748
	4 - A27 Eastbound Slips	0	244	268	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.62	5.36	1.6	A	899	1349
2 - A283 South	1.14	226.18	77.9	F	942	1414
3 - A283 North	0.97	43.45	18.3	E	1323	1985
4 - A27 Eastbound Slips	0.36	3.59	0.6	A	470	705

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	738	184	677	1924	0.384	735	373	0.0	0.6	3.022	A
2 - A283 South	773	193	708	1125	0.687	765	704	0.0	2.1	9.785	A
3 - A283 North	1086	271	528	1722	0.631	1079	945	0.0	1.7	5.544	A
4 - A27 Eastbound Slips	385	96	665	1714	0.225	384	942	0.0	0.3	2.705	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	881	220	810	1850	0.476	880	445	0.6	0.9	3.704	A
2 - A283 South	923	231	848	1069	0.864	910	842	2.1	5.4	21.067	C
3 - A283 North	1296	324	629	1669	0.777	1290	1129	1.7	3.3	9.321	A
4 - A27 Eastbound Slips	460	115	794	1646	0.280	460	1125	0.3	0.4	3.034	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1079	270	982	1755	0.615	1076	511	0.9	1.6	5.282	A
2 - A283 South	1131	283	1037	993	1.138	981	1021	5.4	42.9	101.520	F
3 - A283 North	1588	397	688	1639	0.969	1543	1330	3.3	14.4	29.228	D
4 - A27 Eastbound Slips	564	141	930	1576	0.358	563	1301	0.4	0.6	3.554	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1079	270	990	1750	0.616	1079	519	1.6	1.6	5.358	A
2 - A283 South	1131	283	1039	993	1.139	991	1030	42.9	77.9	226.183	F
3 - A283 North	1588	397	694	1636	0.971	1572	1336	14.4	18.3	43.447	E
4 - A27 Eastbound Slips	564	141	946	1567	0.360	564	1321	0.6	0.6	3.585	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	881	220	828	1840	0.479	884	485	1.6	0.9	3.772	A
2 - A283 South	923	231	851	1068	0.865	1054	861	77.9	45.2	211.617	F
3 - A283 North	1296	324	718	1623	0.799	1353	1187	18.3	4.2	15.708	C
4 - A27 Eastbound Slips	460	115	852	1616	0.285	461	1219	0.6	0.4	3.117	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	738	184	683	1921	0.384	739	410	0.9	0.6	3.051	A
2 - A283 South	773	193	712	1123	0.688	945	710	45.2	2.4	42.049	E
3 - A283 North	1086	271	639	1664	0.652	1095	1017	4.2	1.9	6.426	A
4 - A27 Eastbound Slips	385	96	707	1692	0.228	386	1027	0.4	0.3	2.759	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	80.24	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1631	100.000
2 - A283 South		ONE HOUR	✓	941	100.000
3 - A283 North		ONE HOUR	✓	1414	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	481	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	912	64
	2 - A283 South	202	0	466	273
	3 - A283 North	291	432	0	691
	4 - A27 Eastbound Slips	0	189	292	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	2	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	1.01	63.71	32.5	F	1497	2245
2 - A283 South	1.16	244.39	76.8	F	863	1295
3 - A283 North	0.88	16.75	6.9	C	1298	1946
4 - A27 Eastbound Slips	0.34	3.43	0.5	A	441	662

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1228	307	685	1962	0.626	1221	368	0.0	1.6	4.820	A
2 - A283 South	708	177	950	1065	0.665	701	956	0.0	1.9	9.691	A
3 - A283 North	1065	266	402	1827	0.583	1059	1249	0.0	1.4	4.655	A
4 - A27 Eastbound Slips	362	91	692	1733	0.209	361	769	0.0	0.3	2.624	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1466	367	819	1887	0.777	1459	440	1.6	3.3	8.287	A
2 - A283 South	846	211	1136	990	0.854	833	1143	1.9	5.0	21.420	C
3 - A283 North	1271	318	478	1788	0.711	1267	1491	1.4	2.4	6.860	A
4 - A27 Eastbound Slips	432	108	827	1663	0.260	432	918	0.3	0.3	2.925	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1796	449	1000	1787	1.005	1721	508	3.3	22.2	36.085	E
2 - A283 South	1036	259	1351	904	1.146	891	1369	5.0	41.2	106.923	F
3 - A283 North	1557	389	518	1767	0.881	1540	1725	2.4	6.5	14.891	B
4 - A27 Eastbound Slips	530	132	979	1584	0.334	529	1079	0.3	0.5	3.411	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1796	449	1005	1784	1.006	1755	512	22.2	32.5	63.711	F
2 - A283 South	1036	259	1371	895	1.157	894	1388	41.2	76.8	244.386	F
3 - A283 North	1557	389	520	1766	0.882	1555	1745	6.5	6.9	16.749	C
4 - A27 Eastbound Slips	530	132	987	1580	0.335	530	1088	0.5	0.5	3.427	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1466	367	826	1883	0.779	1581	469	32.5	3.7	16.498	C
2 - A283 South	846	211	1209	961	0.881	948	1199	76.8	51.2	242.436	F
3 - A283 North	1271	318	541	1755	0.724	1288	1617	6.9	2.7	7.964	A
4 - A27 Eastbound Slips	432	108	862	1645	0.263	433	967	0.5	0.4	2.974	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1228	307	689	1959	0.627	1236	414	3.7	1.7	5.032	A
2 - A283 South	708	177	960	1061	0.668	905	965	51.2	2.1	55.193	F
3 - A283 North	1065	266	505	1774	0.600	1069	1359	2.7	1.5	5.143	A
4 - A27 Eastbound Slips	362	91	741	1707	0.212	362	833	0.4	0.3	2.676	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	102.66	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	999	100.000
2 - A283 South		ONE HOUR	✓	1061	100.000
3 - A283 North		ONE HOUR	✓	1416	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	552	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	619	76
	2 - A283 South	196	0	428	437
	3 - A283 North	295	389	0	732
	4 - A27 Eastbound Slips	0	244	308	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	3	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.64	5.73	1.7	A	917	1375
2 - A283 South	1.21	338.51	108.9	F	974	1460
3 - A283 North	0.94	31.82	12.9	D	1299	1949
4 - A27 Eastbound Slips	0.38	3.70	0.6	A	507	760

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	752	188	705	1909	0.394	750	366	0.0	0.6	3.097	A
2 - A283 South	799	200	753	1109	0.720	789	702	0.0	2.5	10.942	B
3 - A283 North	1066	267	528	1721	0.619	1060	1014	0.0	1.6	5.393	A
4 - A27 Eastbound Slips	416	104	658	1721	0.242	414	930	0.0	0.3	2.753	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	898	225	844	1833	0.490	897	436	0.6	1.0	3.841	A
2 - A283 South	954	238	901	1050	0.909	934	840	2.5	7.4	27.296	D
3 - A283 North	1273	318	625	1670	0.762	1267	1209	1.6	3.1	8.798	A
4 - A27 Eastbound Slips	496	124	785	1654	0.300	496	1108	0.3	0.4	3.107	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1100	275	1027	1732	0.635	1097	496	1.0	1.7	5.642	A
2 - A283 South	1168	292	1102	969	1.205	963	1022	7.4	58.8	135.890	F
3 - A283 North	1559	390	658	1654	0.943	1527	1407	3.1	11.1	23.994	C
4 - A27 Eastbound Slips	608	152	916	1586	0.383	607	1269	0.4	0.6	3.672	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1100	275	1034	1728	0.637	1100	502	1.7	1.7	5.731	A
2 - A283 South	1168	292	1104	969	1.206	968	1030	58.8	108.9	314.373	F
3 - A283 North	1559	390	661	1652	0.944	1552	1411	11.1	12.9	31.822	D
4 - A27 Eastbound Slips	608	152	928	1579	0.385	608	1284	0.6	0.6	3.704	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	898	225	857	1826	0.492	901	465	1.7	1.0	3.906	A
2 - A283 South	954	238	904	1048	0.910	1039	854	108.9	87.7	338.509	F
3 - A283 North	1273	318	688	1638	0.777	1310	1255	12.9	3.7	12.106	B
4 - A27 Eastbound Slips	496	124	825	1633	0.304	497	1174	0.6	0.4	3.169	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	752	188	711	1907	0.394	753	426	1.0	0.7	3.127	A
2 - A283 South	799	200	756	1107	0.721	1095	708	87.7	13.7	171.478	F
3 - A283 North	1066	267	711	1626	0.656	1073	1141	3.7	1.9	6.588	A
4 - A27 Eastbound Slips	416	104	721	1688	0.246	416	1063	0.4	0.3	2.833	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	74.51	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1618	100.000
2 - A283 South		ONE HOUR	✓	937	100.000
3 - A283 North		ONE HOUR	✓	1447	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	472	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	899	64
	2 - A283 South	202	0	462	273
	3 - A283 North	304	437	0	706
	4 - A27 Eastbound Slips	0	189	283	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	1.00	56.65	28.0	F	1485	2227
2 - A283 South	1.14	225.90	71.0	F	860	1290
3 - A283 North	0.90	20.07	8.4	C	1328	1992
4 - A27 Eastbound Slips	0.33	3.43	0.5	A	433	650

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1218	305	682	1963	0.620	1212	378	0.0	1.6	4.751	A
2 - A283 South	705	176	934	1072	0.658	698	960	0.0	1.9	9.458	A
3 - A283 North	1089	272	402	1827	0.596	1084	1230	0.0	1.5	4.802	A
4 - A27 Eastbound Slips	355	89	705	1725	0.206	354	780	0.0	0.3	2.625	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1455	364	815	1889	0.770	1448	451	1.6	3.2	8.048	A
2 - A283 South	842	211	1116	998	0.844	831	1147	1.9	4.7	20.261	C
3 - A283 North	1301	325	478	1788	0.728	1296	1468	1.5	2.6	7.252	A
4 - A27 Eastbound Slips	424	106	843	1654	0.257	424	932	0.3	0.3	2.926	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1781	445	994	1790	0.995	1715	524	3.2	19.9	33.433	D
2 - A283 South	1032	258	1332	911	1.132	897	1377	4.7	38.3	100.069	F
3 - A283 North	1593	398	523	1765	0.902	1573	1706	2.6	7.7	17.101	C
4 - A27 Eastbound Slips	520	130	999	1573	0.330	519	1097	0.3	0.5	3.412	A

17:30 - 17:45

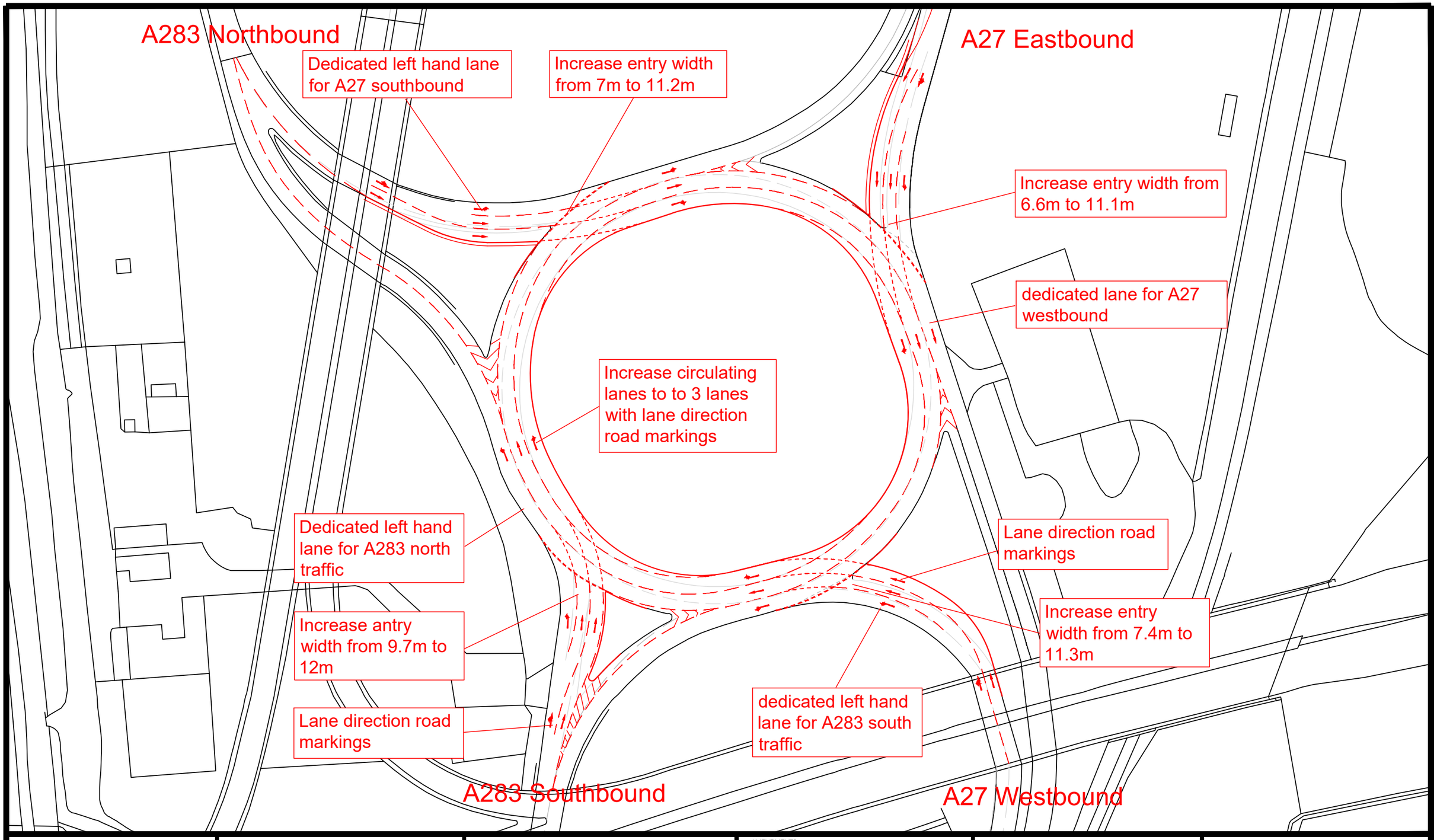
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1781	445	1000	1787	0.997	1749	528	19.9	28.0	56.652	F
2 - A283 South	1032	258	1352	903	1.143	901	1396	38.3	71.0	225.897	F
3 - A283 North	1593	398	526	1764	0.903	1590	1727	7.7	8.4	20.073	C
4 - A27 Eastbound Slips	520	130	1009	1568	0.331	520	1108	0.5	0.5	3.432	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1455	364	824	1884	0.772	1552	485	28.0	3.6	14.058	B
2 - A283 South	842	211	1179	973	0.866	959	1198	71.0	41.8	212.671	F
3 - A283 North	1301	325	548	1753	0.742	1323	1590	8.4	3.0	8.769	A
4 - A27 Eastbound Slips	424	106	884	1633	0.260	425	986	0.5	0.4	2.983	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1218	305	686	1961	0.621	1226	416	3.6	1.7	4.947	A
2 - A283 South	705	176	943	1068	0.661	864	969	41.8	2.1	34.995	D
3 - A283 North	1089	272	487	1784	0.611	1095	1321	3.0	1.6	5.268	A
4 - A27 Eastbound Slips	355	89	747	1704	0.209	356	835	0.4	0.3	2.670	A



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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A27 SLIP / A283

Date	Drawn		
12/11/2021	MAW		
Checked	Date	Approved	Date
Scale: 1/1000@A3	Drg No.: APPENDIX 5.3		Rev.

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 7 - C - A27 Slips - Improved Junction - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\7 - A283 + A27 Slips
Report generation date: 11/11/2021 15:53:57

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A27 Westbound Slips	0.9	2.78	0.46	A	4.00	A	32 % [2 - A283 South]	2.9	5.73	0.74	A	4.59	A	22 % [1 - A27 Westbound Slips]
2 - A283 South	1.8	5.52	0.64	A				1.6	5.57	0.62	A			
3 - A283 North	2.0	4.40	0.67	A				1.6	3.55	0.62	A			
4 - A27 Eastbound Slips	0.4	2.20	0.27	A				0.3	2.13	0.25	A			
Scenario 2 Total														
1 - A27 Westbound Slips	0.8	2.75	0.46	A	3.89	A	33 % [2 - A283 South]	2.7	5.38	0.73	A	4.42	A	24 % [1 - A27 Westbound Slips]
2 - A283 South	1.8	5.45	0.64	A				1.5	5.25	0.60	A			
3 - A283 North	1.9	4.17	0.66	A				1.7	3.64	0.63	A			
4 - A27 Eastbound Slips	0.4	2.17	0.27	A				0.3	2.11	0.24	A			
Scenario 3 Total														
1 - A27 Westbound Slips	0.8	2.63	0.44	A	3.63	A	38 % [2 - A283 South]	2.5	5.12	0.72	A	4.19	A	26 % [1 - A27 Westbound Slips]
2 - A283 South	1.5	4.90	0.61	A				1.5	5.17	0.60	A			
3 - A283 North	1.7	3.95	0.64	A				1.4	3.20	0.58	A			
4 - A27 Eastbound Slips	0.3	2.09	0.25	A				0.3	2.02	0.23	A			
Scenario 4 Total														
1 - A27 Westbound Slips	0.8	2.72	0.45	A	3.75	A	33 % [2 - A283 South]	2.5	5.00	0.71	A	4.14	A	26 % [1 - A27 Westbound Slips]
2 - A283 South	1.7	5.42	0.64	A				1.4	5.04	0.59	A			
3 - A283 North	1.7	3.83	0.62	A				1.5	3.30	0.59	A			
4 - A27 Eastbound Slips	0.4	2.13	0.26	A				0.3	2.03	0.23	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.00	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	2 - A283 South

Arms

Arms

Arm	Name	Description
1	A27 Westbound Slips	
2	A283 South	
3	A283 North	
4	A27 Eastbound Slips	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 Westbound Slips	6.80	11.30	32.5	46.9	127.6	19.0	
2 - A283 South	4.90	12.00	26.4	32.1	127.6	48.0	
3 - A283 North	6.90	11.20	26.3	74.9	127.6	23.0	
4 - A27 Eastbound Slips	6.10	11.10	37.4	62.5	127.6	32.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 Westbound Slips	0.668	3204
2 - A283 South	0.551	2525
3 - A283 North	0.656	3123
4 - A27 Eastbound Slips	0.630	2986

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1013	100.000
2 - A283 South		ONE HOUR	✓	1063	100.000
3 - A283 North		ONE HOUR	✓	1532	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	555	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	633	76
	2 - A283 South	196	0	430	437
	3 - A283 North	345	408	0	779
	4 - A27 Eastbound Slips	0	244	311	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	3	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.46	2.78	0.9	A	930	1394
2 - A283 South	0.64	5.52	1.8	A	975	1463
3 - A283 North	0.67	4.40	2.0	A	1406	2109
4 - A27 Eastbound Slips	0.27	2.20	0.4	A	509	764

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	763	191	723	2633	0.290	761	406	0.0	0.4	1.921	A
2 - A283 South	800	200	766	2017	0.397	798	718	0.0	0.7	2.947	A
3 - A283 North	1153	288	532	2668	0.432	1150	1032	0.0	0.8	2.366	A
4 - A27 Eastbound Slips	418	104	712	2461	0.170	417	970	0.0	0.2	1.761	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	911	228	865	2538	0.359	910	486	0.4	0.6	2.211	A
2 - A283 South	956	239	916	1935	0.494	954	859	0.7	1.0	3.666	A
3 - A283 North	1377	344	637	2600	0.530	1376	1234	0.8	1.1	2.937	A
4 - A27 Eastbound Slips	499	125	852	2372	0.210	499	1160	0.2	0.3	1.922	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1115	279	1059	2409	0.463	1114	594	0.6	0.9	2.778	A
2 - A283 South	1170	293	1122	1823	0.642	1167	1051	1.0	1.8	5.463	A
3 - A283 North	1687	422	779	2506	0.673	1683	1511	1.1	2.0	4.355	A
4 - A27 Eastbound Slips	611	153	1042	2251	0.271	611	1419	0.3	0.4	2.195	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1115	279	1060	2408	0.463	1115	596	0.9	0.9	2.784	A
2 - A283 South	1170	293	1123	1822	0.642	1170	1053	1.8	1.8	5.520	A
3 - A283 North	1687	422	781	2505	0.673	1687	1513	2.0	2.0	4.400	A
4 - A27 Eastbound Slips	611	153	1045	2249	0.272	611	1422	0.4	0.4	2.197	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	911	228	867	2537	0.359	912	488	0.9	0.6	2.218	A
2 - A283 South	956	239	918	1934	0.494	959	861	1.8	1.0	3.705	A
3 - A283 North	1377	344	639	2598	0.530	1381	1237	2.0	1.1	2.966	A
4 - A27 Eastbound Slips	499	125	856	2370	0.211	499	1165	0.4	0.3	1.925	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	763	191	726	2632	0.290	763	408	0.6	0.4	1.928	A
2 - A283 South	800	200	768	2016	0.397	802	720	1.0	0.7	2.968	A
3 - A283 North	1153	288	535	2667	0.432	1155	1035	1.1	0.8	2.384	A
4 - A27 Eastbound Slips	418	104	715	2459	0.170	418	974	0.3	0.2	1.763	A

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.59	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	1 - A27 Westbound Slips

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1659	100.000
2 - A283 South		ONE HOUR	✓	957	100.000
3 - A283 North		ONE HOUR	✓	1520	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	509	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	940	64
	2 - A283 South	202	0	482	273
	3 - A283 North	343	465	0	712
	4 - A27 Eastbound Slips	0	189	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.74	5.73	2.9	A	1522	2283
2 - A283 South	0.62	5.57	1.6	A	878	1317
3 - A283 North	0.62	3.55	1.6	A	1395	2092
4 - A27 Eastbound Slips	0.25	2.13	0.3	A	467	701

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1249	312	732	2683	0.466	1246	409	0.0	0.9	2.498	A
2 - A283 South	720	180	994	1954	0.369	718	983	0.0	0.6	2.908	A
3 - A283 North	1144	286	405	2809	0.407	1142	1308	0.0	0.7	2.155	A
4 - A27 Eastbound Slips	383	96	758	2474	0.155	382	788	0.0	0.2	1.720	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1491	373	875	2586	0.577	1489	489	0.9	1.4	3.276	A
2 - A283 South	860	215	1189	1847	0.466	859	1176	0.6	0.9	3.641	A
3 - A283 North	1366	342	484	2757	0.496	1365	1564	0.7	1.0	2.583	A
4 - A27 Eastbound Slips	458	114	907	2380	0.192	457	942	0.2	0.2	1.871	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1827	457	1071	2455	0.744	1821	599	1.4	2.8	5.624	A
2 - A283 South	1054	263	1454	1702	0.619	1051	1438	0.9	1.6	5.506	A
3 - A283 North	1674	418	592	2687	0.623	1671	1913	1.0	1.6	3.534	A
4 - A27 Eastbound Slips	560	140	1110	2252	0.249	560	1153	0.2	0.3	2.127	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1827	457	1072	2454	0.744	1826	600	2.8	2.9	5.732	A
2 - A283 South	1054	263	1458	1699	0.620	1054	1441	1.6	1.6	5.574	A
3 - A283 North	1674	418	593	2686	0.623	1674	1918	1.6	1.6	3.554	A
4 - A27 Eastbound Slips	560	140	1112	2251	0.249	560	1155	0.3	0.3	2.129	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1491	373	877	2585	0.577	1497	491	2.9	1.4	3.328	A
2 - A283 South	860	215	1194	1844	0.466	863	1180	1.6	0.9	3.679	A
3 - A283 North	1366	342	486	2756	0.496	1369	1571	1.6	1.0	2.600	A
4 - A27 Eastbound Slips	458	114	910	2378	0.192	458	945	0.3	0.2	1.874	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1249	312	734	2681	0.466	1251	411	1.4	0.9	2.522	A
2 - A283 South	720	180	998	1952	0.369	722	987	0.9	0.6	2.930	A
3 - A283 North	1144	286	406	2808	0.408	1146	1313	1.0	0.7	2.168	A
4 - A27 Eastbound Slips	383	96	761	2472	0.155	383	791	0.2	0.2	1.725	A

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	3.89	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	33	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1005	100.000
2 - A283 South		ONE HOUR	✓	1061	100.000
3 - A283 North		ONE HOUR	✓	1489	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	552	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	625	76
	2 - A283 South	196	0	428	437
	3 - A283 North	329	402	0	758
	4 - A27 Eastbound Slips	0	244	308	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	3	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.46	2.75	0.8	A	922	1383
2 - A283 South	0.64	5.45	1.8	A	974	1460
3 - A283 North	0.66	4.17	1.9	A	1366	2049
4 - A27 Eastbound Slips	0.27	2.17	0.4	A	507	760

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	757	189	717	2637	0.287	755	394	0.0	0.4	1.910	A
2 - A283 South	799	200	758	2021	0.395	796	714	0.0	0.7	2.933	A
3 - A283 North	1121	280	532	2666	0.421	1118	1022	0.0	0.7	2.322	A
4 - A27 Eastbound Slips	416	104	696	2470	0.168	415	954	0.0	0.2	1.751	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	903	226	857	2543	0.355	903	471	0.4	0.5	2.195	A
2 - A283 South	954	238	907	1940	0.492	953	853	0.7	1.0	3.640	A
3 - A283 North	1339	335	637	2597	0.515	1337	1223	0.7	1.1	2.855	A
4 - A27 Eastbound Slips	496	124	832	2384	0.208	496	1141	0.2	0.3	1.906	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1107	277	1049	2415	0.458	1105	577	0.5	0.8	2.747	A
2 - A283 South	1168	292	1110	1829	0.639	1165	1045	1.0	1.7	5.395	A
3 - A283 North	1639	410	779	2504	0.655	1636	1496	1.1	1.9	4.134	A
4 - A27 Eastbound Slips	608	152	1018	2265	0.268	607	1396	0.3	0.4	2.171	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1107	277	1050	2414	0.458	1107	578	0.8	0.8	2.753	A
2 - A283 South	1168	292	1111	1829	0.639	1168	1046	1.7	1.8	5.449	A
3 - A283 North	1639	410	781	2502	0.655	1639	1498	1.9	1.9	4.171	A
4 - A27 Eastbound Slips	608	152	1021	2264	0.268	608	1399	0.4	0.4	2.173	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	903	226	859	2542	0.355	905	473	0.8	0.6	2.199	A
2 - A283 South	954	238	908	1939	0.492	957	855	1.8	1.0	3.675	A
3 - A283 North	1339	335	639	2595	0.516	1342	1226	1.9	1.1	2.881	A
4 - A27 Eastbound Slips	496	124	836	2382	0.208	497	1146	0.4	0.3	1.909	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	757	189	719	2636	0.287	757	396	0.6	0.4	1.916	A
2 - A283 South	799	200	760	2020	0.395	800	716	1.0	0.7	2.953	A
3 - A283 North	1121	280	535	2664	0.421	1122	1026	1.1	0.7	2.336	A
4 - A27 Eastbound Slips	416	104	699	2469	0.168	416	958	0.3	0.2	1.753	A

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.42	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	24	1 - A27 Westbound Slips

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1632	100.000
2 - A283 South		ONE HOUR	✓	947	100.000
3 - A283 North		ONE HOUR	✓	1543	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	488	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	913	64
	2 - A283 South	202	0	472	273
	3 - A283 North	350	470	0	723
	4 - A27 Eastbound Slips	0	189	299	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.73	5.38	2.7	A	1498	2246
2 - A283 South	0.60	5.25	1.5	A	869	1303
3 - A283 North	0.63	3.64	1.7	A	1416	2124
4 - A27 Eastbound Slips	0.24	2.11	0.3	A	448	672

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1229	307	720	2690	0.457	1225	414	0.0	0.8	2.453	A
2 - A283 South	713	178	958	1974	0.361	711	987	0.0	0.6	2.846	A
3 - A283 North	1162	290	405	2810	0.413	1159	1264	0.0	0.7	2.176	A
4 - A27 Eastbound Slips	367	92	767	2467	0.149	367	796	0.0	0.2	1.713	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1467	367	861	2596	0.565	1465	496	0.8	1.3	3.179	A
2 - A283 South	851	213	1146	1870	0.455	850	1180	0.6	0.8	3.526	A
3 - A283 North	1387	347	484	2758	0.503	1386	1512	0.7	1.0	2.621	A
4 - A27 Eastbound Slips	439	110	918	2372	0.185	438	952	0.2	0.2	1.860	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1797	449	1054	2466	0.729	1792	607	1.3	2.6	5.294	A
2 - A283 South	1043	261	1401	1730	0.603	1040	1444	0.8	1.5	5.198	A
3 - A283 North	1699	425	592	2688	0.632	1696	1850	1.0	1.7	3.619	A
4 - A27 Eastbound Slips	537	134	1123	2243	0.240	537	1165	0.2	0.3	2.110	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1797	449	1055	2465	0.729	1797	608	2.6	2.7	5.383	A
2 - A283 South	1043	261	1405	1728	0.603	1043	1447	1.5	1.5	5.251	A
3 - A283 North	1699	425	593	2687	0.632	1699	1854	1.7	1.7	3.643	A
4 - A27 Eastbound Slips	537	134	1125	2241	0.240	537	1167	0.3	0.3	2.112	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1467	367	862	2594	0.566	1473	497	2.7	1.3	3.223	A
2 - A283 South	851	213	1151	1868	0.456	854	1184	1.5	0.8	3.561	A
3 - A283 North	1387	347	486	2757	0.503	1390	1518	1.7	1.0	2.640	A
4 - A27 Eastbound Slips	439	110	921	2370	0.185	439	955	0.3	0.2	1.863	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1229	307	722	2689	0.457	1231	416	1.3	0.8	2.473	A
2 - A283 South	713	178	962	1972	0.362	714	990	0.8	0.6	2.864	A
3 - A283 North	1162	290	406	2809	0.414	1163	1270	1.0	0.7	2.188	A
4 - A27 Eastbound Slips	367	92	770	2465	0.149	368	799	0.2	0.2	1.715	A

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	3.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	38	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	980	100.000
2 - A283 South		ONE HOUR	✓	1027	100.000
3 - A283 North		ONE HOUR	✓	1442	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	600	76
	2 - A283 South	196	0	394	437
	3 - A283 North	303	391	0	748
	4 - A27 Eastbound Slips	0	244	268	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.44	2.63	0.8	A	899	1349
2 - A283 South	0.61	4.90	1.5	A	942	1414
3 - A283 North	0.64	3.95	1.7	A	1323	1985
4 - A27 Eastbound Slips	0.25	2.09	0.3	A	470	705

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	738	184	678	2660	0.277	736	375	0.0	0.4	1.868	A
2 - A283 South	773	193	709	2044	0.378	771	705	0.0	0.6	2.822	A
3 - A283 North	1086	271	532	2663	0.408	1083	948	0.0	0.7	2.274	A
4 - A27 Eastbound Slips	385	96	668	2483	0.155	385	947	0.0	0.2	1.715	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	881	220	811	2571	0.343	880	448	0.4	0.5	2.129	A
2 - A283 South	923	231	848	1969	0.469	922	844	0.6	0.9	3.437	A
3 - A283 North	1296	324	637	2594	0.500	1295	1134	0.7	1.0	2.768	A
4 - A27 Eastbound Slips	460	115	799	2399	0.192	460	1132	0.2	0.2	1.855	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1079	270	993	2449	0.441	1078	548	0.5	0.8	2.624	A
2 - A283 South	1131	283	1038	1865	0.606	1128	1033	0.9	1.5	4.869	A
3 - A283 North	1588	397	779	2501	0.635	1585	1388	1.0	1.7	3.918	A
4 - A27 Eastbound Slips	564	141	978	2286	0.247	563	1386	0.2	0.3	2.090	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1079	270	994	2448	0.441	1079	549	0.8	0.8	2.628	A
2 - A283 South	1131	283	1039	1865	0.606	1131	1034	1.5	1.5	4.905	A
3 - A283 North	1588	397	781	2500	0.635	1588	1389	1.7	1.7	3.947	A
4 - A27 Eastbound Slips	564	141	980	2285	0.247	564	1388	0.3	0.3	2.091	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	881	220	813	2570	0.343	882	450	0.8	0.5	2.133	A
2 - A283 South	923	231	850	1968	0.469	926	845	1.5	0.9	3.464	A
3 - A283 North	1296	324	639	2593	0.500	1299	1136	1.7	1.0	2.789	A
4 - A27 Eastbound Slips	460	115	802	2398	0.192	461	1136	0.3	0.2	1.860	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	738	184	680	2659	0.277	738	376	0.5	0.4	1.876	A
2 - A283 South	773	193	711	2043	0.378	774	708	0.9	0.6	2.838	A
3 - A283 North	1086	271	535	2661	0.408	1087	951	1.0	0.7	2.289	A
4 - A27 Eastbound Slips	385	96	671	2481	0.155	386	951	0.2	0.2	1.717	A

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.19	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	1 - A27 Westbound Slips

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1631	100.000
2 - A283 South		ONE HOUR	✓	941	100.000
3 - A283 North		ONE HOUR	✓	1414	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	481	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	912	64
	2 - A283 South	202	0	466	273
	3 - A283 North	291	432	0	691
	4 - A27 Eastbound Slips	0	189	292	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	2	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.72	5.12	2.5	A	1497	2245
2 - A283 South	0.60	5.17	1.5	A	863	1295
3 - A283 North	0.58	3.20	1.4	A	1298	1946
4 - A27 Eastbound Slips	0.23	2.02	0.3	A	441	662

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1228	307	686	2713	0.453	1225	370	0.0	0.8	2.414	A
2 - A283 South	708	177	952	1977	0.358	706	958	0.0	0.6	2.828	A
3 - A283 North	1065	266	405	2806	0.379	1062	1254	0.0	0.6	2.062	A
4 - A27 Eastbound Slips	362	91	695	2512	0.144	361	772	0.0	0.2	1.673	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1466	367	820	2622	0.559	1465	443	0.8	1.3	3.106	A
2 - A283 South	846	211	1139	1874	0.451	845	1146	0.6	0.8	3.494	A
3 - A283 North	1271	318	484	2754	0.462	1270	1500	0.6	0.9	2.425	A
4 - A27 Eastbound Slips	432	108	831	2426	0.178	432	923	0.2	0.2	1.804	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1796	449	1004	2499	0.719	1791	542	1.3	2.5	5.050	A
2 - A283 South	1036	259	1393	1734	0.597	1033	1402	0.8	1.5	5.117	A
3 - A283 North	1557	389	592	2684	0.580	1555	1834	0.9	1.4	3.183	A
4 - A27 Eastbound Slips	530	132	1017	2309	0.229	529	1130	0.2	0.3	2.023	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1796	449	1005	2498	0.719	1796	543	2.5	2.5	5.123	A
2 - A283 South	1036	259	1396	1733	0.598	1036	1405	1.5	1.5	5.166	A
3 - A283 North	1557	389	593	2683	0.580	1557	1839	1.4	1.4	3.196	A
4 - A27 Eastbound Slips	530	132	1018	2308	0.230	530	1132	0.3	0.3	2.024	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1466	367	822	2621	0.559	1471	444	2.5	1.3	3.142	A
2 - A283 South	846	211	1143	1872	0.452	849	1150	1.5	0.8	3.528	A
3 - A283 North	1271	318	486	2753	0.462	1273	1506	1.4	0.9	2.438	A
4 - A27 Eastbound Slips	432	108	833	2425	0.178	433	926	0.3	0.2	1.809	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1228	307	688	2711	0.453	1230	372	1.3	0.8	2.432	A
2 - A283 South	708	177	956	1975	0.359	710	962	0.8	0.6	2.849	A
3 - A283 North	1065	266	406	2805	0.380	1066	1259	0.9	0.6	2.072	A
4 - A27 Eastbound Slips	362	91	697	2511	0.144	362	775	0.2	0.2	1.677	A

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	3.75	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	33	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	999	100.000
2 - A283 South		ONE HOUR	✓	1061	100.000
3 - A283 North		ONE HOUR	✓	1416	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	552	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	619	76
	2 - A283 South	196	0	428	437
	3 - A283 North	295	389	0	732
	4 - A27 Eastbound Slips	0	244	308	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	3	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.45	2.72	0.8	A	917	1375
2 - A283 South	0.64	5.42	1.7	A	974	1460
3 - A283 North	0.62	3.83	1.7	A	1299	1949
4 - A27 Eastbound Slips	0.26	2.13	0.4	A	507	760

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	752	188	707	2643	0.285	751	369	0.0	0.4	1.899	A
2 - A283 South	799	200	754	2023	0.395	796	704	0.0	0.6	2.927	A
3 - A283 North	1066	267	532	2661	0.401	1063	1018	0.0	0.7	2.249	A
4 - A27 Eastbound Slips	416	104	661	2492	0.167	415	935	0.0	0.2	1.732	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	898	225	845	2550	0.352	897	441	0.4	0.5	2.178	A
2 - A283 South	954	238	901	1943	0.491	953	842	0.6	1.0	3.630	A
3 - A283 North	1273	318	637	2593	0.491	1272	1217	0.7	1.0	2.723	A
4 - A27 Eastbound Slips	496	124	790	2409	0.206	496	1118	0.2	0.3	1.880	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1100	275	1035	2423	0.454	1099	539	0.5	0.8	2.715	A
2 - A283 South	1168	292	1103	1833	0.637	1165	1030	1.0	1.7	5.367	A
3 - A283 North	1559	390	779	2499	0.624	1556	1490	1.0	1.6	3.807	A
4 - A27 Eastbound Slips	608	152	967	2297	0.265	607	1368	0.3	0.4	2.131	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1100	275	1036	2423	0.454	1100	541	0.8	0.8	2.721	A
2 - A283 South	1168	292	1104	1832	0.638	1168	1032	1.7	1.7	5.420	A
3 - A283 North	1559	390	781	2498	0.624	1559	1492	1.6	1.7	3.833	A
4 - A27 Eastbound Slips	608	152	969	2296	0.265	608	1371	0.4	0.4	2.132	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	898	225	847	2549	0.352	899	443	0.8	0.5	2.184	A
2 - A283 South	954	238	903	1942	0.491	957	844	1.7	1.0	3.664	A
3 - A283 North	1273	318	639	2591	0.491	1276	1220	1.7	1.0	2.742	A
4 - A27 Eastbound Slips	496	124	793	2408	0.206	497	1122	0.4	0.3	1.886	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	752	188	709	2642	0.285	753	370	0.5	0.4	1.908	A
2 - A283 South	799	200	756	2022	0.395	800	706	1.0	0.7	2.950	A
3 - A283 North	1066	267	535	2660	0.401	1067	1021	1.0	0.7	2.262	A
4 - A27 Eastbound Slips	416	104	663	2490	0.167	416	938	0.3	0.2	1.737	A

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.14	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	1 - A27 Westbound Slips

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1618	100.000
2 - A283 South		ONE HOUR	✓	937	100.000
3 - A283 North		ONE HOUR	✓	1447	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	472	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	899	64
	2 - A283 South	202	0	462	273
	3 - A283 North	304	437	0	706
	4 - A27 Eastbound Slips	0	189	283	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.71	5.00	2.5	A	1485	2227
2 - A283 South	0.59	5.04	1.4	A	860	1290
3 - A283 North	0.59	3.30	1.5	A	1328	1992
4 - A27 Eastbound Slips	0.23	2.03	0.3	A	433	650

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1218	305	683	2714	0.449	1215	380	0.0	0.8	2.396	A
2 - A283 South	705	176	936	1986	0.355	703	962	0.0	0.5	2.802	A
3 - A283 North	1089	272	405	2807	0.388	1087	1234	0.0	0.6	2.090	A
4 - A27 Eastbound Slips	355	89	708	2503	0.142	355	783	0.0	0.2	1.675	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1455	364	817	2624	0.554	1453	454	0.8	1.2	3.069	A
2 - A283 South	842	211	1119	1885	0.447	841	1151	0.5	0.8	3.446	A
3 - A283 North	1301	325	484	2755	0.472	1300	1476	0.6	0.9	2.472	A
4 - A27 Eastbound Slips	424	106	847	2415	0.176	424	937	0.2	0.2	1.807	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1781	445	1000	2501	0.712	1777	556	1.2	2.4	4.935	A
2 - A283 South	1032	258	1369	1748	0.590	1029	1408	0.8	1.4	4.994	A
3 - A283 North	1593	398	592	2685	0.593	1591	1806	0.9	1.4	3.284	A
4 - A27 Eastbound Slips	520	130	1037	2296	0.226	519	1146	0.2	0.3	2.026	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1781	445	1001	2501	0.712	1781	557	2.4	2.5	5.002	A
2 - A283 South	1032	258	1372	1746	0.591	1032	1410	1.4	1.4	5.039	A
3 - A283 North	1593	398	593	2684	0.594	1593	1810	1.4	1.5	3.299	A
4 - A27 Eastbound Slips	520	130	1038	2295	0.226	520	1148	0.3	0.3	2.027	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1455	364	818	2623	0.554	1459	456	2.5	1.3	3.104	A
2 - A283 South	842	211	1123	1883	0.447	845	1154	1.4	0.8	3.476	A
3 - A283 North	1301	325	486	2754	0.472	1303	1482	1.5	0.9	2.484	A
4 - A27 Eastbound Slips	424	106	849	2414	0.176	425	940	0.3	0.2	1.811	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1218	305	685	2713	0.449	1220	381	1.3	0.8	2.415	A
2 - A283 South	705	176	939	1984	0.356	706	966	0.8	0.6	2.820	A
3 - A283 North	1089	272	406	2806	0.388	1090	1239	0.9	0.6	2.101	A
4 - A27 Eastbound Slips	355	89	711	2502	0.142	356	786	0.2	0.2	1.676	A

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham A27 Slip Road Roundabout**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A27 Slip Road Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-07A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	5000.00	5,000.00
1.02	REMOVE CONCRETE KERBS	569.00	m	15.00	8,535.00
1.03	REMOVE EDGING KERB	0.00	m	3.00	0.00
1.04	REMOVE LIGHTING COLUMNS	8.00	ITEM	750.00	6,000.00
1.05	REMOVE GULLIES	0.00	No	450.00	0.00
1.06	REMOVE TRAFFIC SIGNS	12.00	No	350.00	4,200.00
1.07	REMOVE VEHICLE RESTRAIN BARRIER	132.00	m	60.00	7,920.00
					31,655.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	1175.00	Cum	22.00	25,850.00
2.02	EXCAVATE HARD AND DISPOSE	0.00	Cum	55.00	0.00
2.03	DISPOSE U/S	1175.00	Cum	50.00	58,750.00
2.04	FORMATION AND SUB-FORMATION	1600.00	Sqm	1.20	1,920.00
2.05	PLANE CARRIAGEWAY (40mm)	4938.00	Sqm	3.50	17,283.00
2.06	PLANE FOOTWAY (20mm)	0.00	Sqm	2.50	0.00
2.07	IMPORT CAPPING AND COMPACT	470.00	Cum	18.00	8,460.00
					112,263.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	352.00	Cum	25.00	8,800.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	1565.00	Sqm	22.00	34,430.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	1565.00	Sqm	24.00	37,560.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	6503.00	Sqm	18.00	117,054.00
3.05	CONCRETE KERBING	505.00	m	20.00	10,100.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	0.00	m	12.00	0.00
3.08	SUB BASE - FOOTWAY(150mm)	0.00	Cum	18.00	0.00
3.09	FOOTWAY SURFACE COURSE (20mm)	0.00	Sqm	8.00	0.00
3.10	FOOTWAY BINDER COURSE (50mm)	0.00	Sqm	11.00	0.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	0.00	Sqm	30.00	0.00
					207,944.00

APPENDIX 5.5
BUDGET COST ESTIMATE FOR
OFF-SITE HIGHWAY WORKS

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	0.00	No	600.00	0.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	0.00	No	500.00	0.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					0.00
5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	4500.00	4500.00
5.02	BOLLARDS	0.00	No	600.00	0.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	12.00	No	750.00	9000.00
5.04	ADS and POSTs	0.00	No	1250.00	0.00
					13,500.00
7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	10000.00	10,000.00
7.02	STREET LIGHTING COLUMN	8.00	No.	1800.00	14,400.00
7.03	LIGHTING DUCTING	80.00	m	20.00	1,600.00
7.04	TOPSOIL & SEED	509.00	Sqm	12.50	6,362.50
7.05	VEHICLE RESTRAINT BARRIER	1.00	ITEM	25000.00	25,000.00
7.06	ELECTRICAL CONNECTION	0.00	No	2000.00	0.00
					57,362.50

	SUMMARY	
	Preliminaries 15%	£54,804.30
1.0	Site Clearance	£31,655.00
2.0	Earthworks	£112,263.00
3.0	Pavement	£207,944.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£13,500.00
6.0	Other	£57,362.50
		£477,529

CONTINGENCY 10%	£47,753
CIVILS TOTAL	£525,282

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

THE ESTIMATE INCLUDES THE RESURFACING OF ALL APPROACH ROADS AND THE WHOLE GYRATORY

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

6.0 Junction 8 – A283 / Upper Shoreham Road Roundabout

6.1 ARCADY Output: 2033 Baseline Scenario
6.2 ARCADY Outputs: Proposed Development Scenarios
6.3 Proposed Junction Improvements
6.4 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
6.5 Budget Cost Estimate for Off-Site Highway Works

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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+44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 8 - A - A283 - Upper Shm Rd - Existing Jct - 2033 Base incl permitted.j9
Path: D:\5201 Shoreham\Amol\8 - A283 Upper Shoreham Rd
Report generation date: 11/11/2021 16:17:01

»2033 Base incl permitted, AM
»2033 Base incl permitted, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Base incl permitted													
1 - Upper Shoreham Road	6.4	29.97	0.88	D	121.38	F	-18 % [3 - A283 North]	8.7	40.29	0.92	E	491.79	F	-35 % [3 - A283 North]
2 - A283 South	24.4	137.08	1.04	F				25.2	134.03	1.04	F			
3 - A283 North	49.8	196.14	1.10	F				238.1	1042.68	1.43	F			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

APPENDIX 6.1
ARCADY OUTPUT: 2033 BASELINE SCENARIO

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base incl permitted	AM	ONE HOUR	07:45	09:15	15	✓
D2	2033 Base incl permitted	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base incl permitted, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	121.38	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-18	3 - A283 North

Arms

Arms

Arm	Name	Description
1	Upper Shoreham Road	
2	A283 South	
3	A283 North	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Upper Shoreham Road	4.70	4.70	6.50	8.9	15.90	9.00	0.0	
2 - A283 South	3.60	3.60	4.50	2.8	17.70	12.20	0.0	✓
3 - A283 North	4.00	4.00	4.50	0.8	15.40	7.90	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Upper Shoreham Road	0.697	1131
2 - A283 South	0.525	923
3 - A283 North	0.524	902

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base incl permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	743	100.000
2 - A283 South		ONE HOUR	✓	564	100.000
3 - A283 North		ONE HOUR	✓	790	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	564
	2 - A283 South	202	0	362
	3 - A283 North	501	287	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.88	29.97	6.4	D	682	1023
2 - A283 South	1.04	137.08	24.4	F	518	776
3 - A283 North	1.10	196.14	49.8	F	725	1087

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	559	140	214	982	0.570	554	523	0.0	1.3	8.316	A
2 - A283 South	425	106	424	700	0.606	419	344	0.0	1.5	12.531	B
3 - A283 North	595	149	152	822	0.724	585	691	0.0	2.5	14.638	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	668	167	255	954	0.700	664	624	1.3	2.2	12.275	B
2 - A283 South	507	127	509	656	0.773	501	410	1.5	3.1	22.266	C
3 - A283 North	710	178	182	806	0.881	697	827	2.5	5.8	29.633	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	818	205	284	933	0.877	804	701	2.2	5.8	25.398	D
2 - A283 South	621	155	615	600	1.035	572	473	3.1	15.4	75.778	F
3 - A283 North	870	217	208	793	1.097	777	979	5.8	29.0	96.128	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	818	205	288	931	0.879	816	712	5.8	6.4	29.965	D
2 - A283 South	621	155	624	595	1.043	585	479	15.4	24.4	137.079	F
3 - A283 North	870	217	213	790	1.101	786	997	29.0	49.8	192.704	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	668	167	283	934	0.715	683	704	6.4	2.6	15.131	C
2 - A283 South	507	127	523	649	0.782	587	443	24.4	4.3	75.959	F
3 - A283 North	710	178	213	790	0.899	774	897	49.8	33.8	196.138	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	559	140	263	948	0.590	564	614	2.6	1.5	9.483	A
2 - A283 South	425	106	432	696	0.610	435	394	4.3	1.6	14.338	B
3 - A283 North	595	149	158	819	0.726	718	709	33.8	3.0	61.808	F

2033 Base incl permitted, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	491.79	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base incl permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	756	100.000
2 - A283 South		ONE HOUR	✓	595	100.000
3 - A283 North		ONE HOUR	✓	1006	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	502
	2 - A283 South	223	3	369
	3 - A283 North	596	409	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.92	40.29	8.7	E	694	1041
2 - A283 South	1.04	134.03	25.2	F	546	819
3 - A283 North	1.43	1042.68	238.1	F	923	1385

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	569	142	297	924	0.616	563	602	0.0	1.6	9.808	A
2 - A283 South	448	112	382	723	0.620	442	478	0.0	1.6	12.552	B
3 - A283 North	757	189	175	810	0.935	724	648	0.0	8.4	34.036	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	680	170	322	907	0.749	675	671	1.6	2.8	15.164	C
2 - A283 South	535	134	458	683	0.783	528	539	1.6	3.3	22.319	C
3 - A283 North	904	226	210	792	1.142	783	776	8.4	38.8	123.625	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	832	208	319	909	0.916	813	697	2.8	7.6	32.339	D
2 - A283 South	655	164	551	634	1.034	605	581	3.3	15.9	73.993	F
3 - A283 North	1108	277	240	776	1.428	775	916	38.8	121.9	382.971	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	832	208	318	909	0.915	828	700	7.6	8.7	40.292	E
2 - A283 South	655	164	562	628	1.043	618	585	15.9	25.2	134.030	F
3 - A283 North	1108	277	246	773	1.433	773	934	121.9	205.5	769.129	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	680	170	319	909	0.748	702	699	8.7	3.2	18.928	C
2 - A283 South	535	134	476	673	0.795	617	544	25.2	4.8	78.519	F
3 - A283 North	904	226	244	774	1.168	774	849	205.5	238.1	1032.854	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	569	142	329	902	0.631	575	656	3.2	1.8	11.195	B
2 - A283 South	448	112	390	718	0.624	460	514	4.8	1.7	14.544	B
3 - A283 North	757	189	182	806	0.940	803	668	238.1	226.8	1042.679	F

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 8 - B - A283 - Upper Shm Rd - Existing Jct - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\8 - A283 Upper Shoreham Rd
Report generation date: 11/11/2021 16:18:04

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - Upper Shoreham Road	7.7	35.71	0.90	E	176.51	F	-21 % [3 - A283 North]	11.0	50.23	0.94	F	667.23	F	-39 % [3 - A283 North]
2 - A283 South	46.2	232.03	1.13	F				38.5	189.13	1.10	F			
3 - A283 North	62.4	264.82	1.13	F				306.8	1384.91	1.52	F			
Scenario 2 Total														
1 - Upper Shoreham Road	7.5	34.93	0.90	D	169.92	F	-21 % [3 - A283 North]	10.6	48.92	0.94	E	675.83	F	-39 % [3 - A283 North]
2 - A283 South	45.4	228.75	1.13	F				34.6	172.73	1.08	F			
3 - A283 North	59.7	250.84	1.12	F				313.2	1406.65	1.53	F			
Scenario 3 Total														
1 - Upper Shoreham Road	6.9	32.03	0.89	D	142.81	F	-20 % [3 - A283 North]	9.7	44.69	0.93	E	575.14	F	-37 % [3 - A283 North]
2 - A283 South	30.5	163.94	1.07	F				32.1	162.70	1.07	F			
3 - A283 North	55.8	230.69	1.12	F				271.1	1205.90	1.47	F			
Scenario 4 Total														
1 - Upper Shoreham Road	7.2	33.37	0.89	D	155.11	F	-19 % [3 - A283 North]	9.5	43.83	0.93	E	588.70	F	-37 % [3 - A283 North]
2 - A283 South	45.3	227.93	1.13	F				30.4	155.48	1.07	F			
3 - A283 North	52.8	214.14	1.11	F				277.5	1236.18	1.48	F			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 6.2
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	176.51	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-21	3 - A283 North

Arms

Arms

Arm	Name	Description
1	Upper Shoreham Road	
2	A283 South	
3	A283 North	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Upper Shoreham Road	4.70	4.70	6.50	8.9	15.90	9.00	0.0	
2 - A283 South	3.60	3.60	4.50	2.8	17.70	12.20	0.0	✓
3 - A283 North	4.00	4.00	4.50	0.8	15.40	7.90	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Upper Shoreham Road	0.697	1131
2 - A283 South	0.525	923
3 - A283 North	0.524	902

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	753	100.000
2 - A283 South		ONE HOUR	✓	607	100.000
3 - A283 North		ONE HOUR	✓	819	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	574
	2 - A283 South	202	0	405
	3 - A283 North	506	311	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.90	35.71	7.7	E	691	1036
2 - A283 South	1.13	232.03	46.2	F	557	835
3 - A283 North	1.13	264.82	62.4	F	752	1127

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	567	142	231	970	0.584	561	526	0.0	1.4	8.699	A
2 - A283 South	457	114	432	697	0.656	450	361	0.0	1.8	14.198	B
3 - A283 North	617	154	152	822	0.750	605	729	0.0	2.8	15.891	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	677	169	275	940	0.720	673	625	1.4	2.5	13.255	B
2 - A283 South	546	136	517	652	0.837	536	430	1.8	4.3	28.777	D
3 - A283 North	736	184	181	807	0.912	718	872	2.8	7.3	34.966	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	829	207	301	921	0.900	812	684	2.5	6.8	29.009	D
2 - A283 South	668	167	624	596	1.122	582	489	4.3	25.9	111.600	F
3 - A283 North	902	225	197	799	1.129	788	1009	7.3	35.8	113.372	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	829	207	304	919	0.902	826	690	6.8	7.7	35.708	E
2 - A283 South	668	167	635	590	1.133	587	495	25.9	46.2	232.029	F
3 - A283 North	902	225	199	798	1.131	795	1023	35.8	62.4	233.875	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	677	169	297	924	0.733	696	693	7.7	2.9	16.960	C
2 - A283 South	546	136	535	642	0.850	629	458	46.2	25.4	207.865	F
3 - A283 North	736	184	212	791	0.931	778	952	62.4	51.9	264.822	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	567	142	302	921	0.616	572	673	2.9	1.6	10.456	B
2 - A283 South	457	114	440	692	0.660	550	433	25.4	2.1	41.338	E
3 - A283 North	617	154	185	805	0.766	789	805	51.9	8.7	145.501	F

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	667.23	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-39	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	763	100.000
2 - A283 South		ONE HOUR	✓	623	100.000
3 - A283 North		ONE HOUR	✓	1071	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	509
	2 - A283 South	223	3	397
	3 - A283 North	606	464	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.94	50.23	11.0	F	700	1050
2 - A283 South	1.10	189.13	38.5	F	572	858
3 - A283 North	1.52	1384.91	306.8	F	983	1474

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	144	329	902	0.637	568	599	0.0	1.7	10.573	B
2 - A283 South	469	117	387	720	0.651	462	510	0.0	1.8	13.596	B
3 - A283 North	806	202	175	810	0.995	753	674	0.0	13.3	45.980	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	686	171	345	891	0.770	680	652	1.7	3.1	16.651	C
2 - A283 South	560	140	463	680	0.824	551	562	1.8	4.0	26.250	D
3 - A283 North	963	241	209	792	1.215	788	806	13.3	56.9	174.040	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	840	210	341	893	0.940	816	671	3.1	9.2	37.770	E
2 - A283 South	686	171	556	632	1.086	613	601	4.0	22.2	94.683	F
3 - A283 North	1179	295	233	780	1.513	779	936	56.9	156.8	502.515	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	840	210	341	894	0.940	833	673	9.2	11.0	50.228	F
2 - A283 South	686	171	567	625	1.097	621	606	22.2	38.5	189.132	F
3 - A283 North	1179	295	236	778	1.516	778	952	156.8	257.2	966.893	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	686	171	339	895	0.766	716	680	11.0	3.5	22.708	C
2 - A283 South	560	140	487	667	0.839	650	567	38.5	15.9	156.064	F
3 - A283 North	963	241	245	773	1.245	773	893	257.2	304.6	1301.251	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	144	349	888	0.647	581	647	3.5	1.9	11.962	B
2 - A283 South	469	117	396	715	0.656	525	534	15.9	2.0	24.149	C
3 - A283 North	806	202	198	798	1.010	797	723	304.6	306.8	1384.912	F

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	169.92	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-21	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	752	100.000
2 - A283 South		ONE HOUR	✓	606	100.000
3 - A283 North		ONE HOUR	✓	814	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	573
	2 - A283 South	202	0	404
	3 - A283 North	505	307	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.90	34.93	7.5	D	690	1035
2 - A283 South	1.13	228.75	45.4	F	556	834
3 - A283 North	1.12	250.84	59.7	F	747	1120

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	566	142	228	972	0.582	561	525	0.0	1.4	8.643	A
2 - A283 South	456	114	431	697	0.655	449	358	0.0	1.8	14.140	B
3 - A283 North	613	153	152	822	0.745	602	728	0.0	2.7	15.659	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	676	169	271	942	0.718	672	624	1.4	2.4	13.109	B
2 - A283 South	545	136	516	652	0.835	535	427	1.8	4.3	28.528	D
3 - A283 North	732	183	181	807	0.907	715	870	2.7	7.0	33.939	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	828	207	299	923	0.897	811	685	2.4	6.7	28.520	D
2 - A283 South	667	167	623	596	1.119	582	487	4.3	25.6	110.375	F
3 - A283 North	896	224	197	798	1.123	787	1008	7.0	34.4	109.720	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	828	207	302	921	0.899	825	692	6.7	7.5	34.929	D
2 - A283 South	667	167	634	591	1.130	588	493	25.6	45.4	228.748	F
3 - A283 North	896	224	199	797	1.124	795	1022	34.4	59.7	224.940	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	676	169	295	926	0.730	695	695	7.5	2.9	16.692	C
2 - A283 South	545	136	534	643	0.847	629	456	45.4	24.4	202.865	F
3 - A283 North	732	183	212	790	0.926	777	951	59.7	48.3	250.840	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	566	142	299	923	0.613	571	672	2.9	1.6	10.366	B
2 - A283 South	456	114	439	693	0.659	545	430	24.4	2.1	38.769	E
3 - A283 North	613	153	184	805	0.761	787	801	48.3	4.9	128.659	F

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	675.83	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-39	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	760	100.000
2 - A283 South		ONE HOUR	✓	616	100.000
3 - A283 North		ONE HOUR	✓	1076	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	506
	2 - A283 South	223	3	390
	3 - A283 North	607	468	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.94	48.92	10.6	E	697	1046
2 - A283 South	1.08	172.73	34.6	F	565	848
3 - A283 North	1.53	1406.65	313.2	F	987	1481

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	572	143	331	900	0.636	565	599	0.0	1.7	10.552	B
2 - A283 South	464	116	385	721	0.643	457	512	0.0	1.7	13.294	B
3 - A283 North	810	203	175	810	1.000	755	666	0.0	13.8	47.078	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	683	171	346	890	0.768	678	651	1.7	3.1	16.534	C
2 - A283 South	554	138	461	681	0.813	545	563	1.7	3.8	25.070	D
3 - A283 North	967	242	209	792	1.221	789	797	13.8	58.4	178.649	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	837	209	342	893	0.937	813	671	3.1	9.0	37.129	E
2 - A283 South	678	170	553	633	1.071	612	603	3.8	20.3	88.506	F
3 - A283 North	1185	296	235	778	1.522	778	930	58.4	160.1	514.348	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	837	209	341	893	0.937	830	674	9.0	10.6	48.922	E
2 - A283 South	678	170	564	627	1.082	621	607	20.3	34.6	172.734	F
3 - A283 North	1185	296	239	777	1.526	776	947	160.1	262.1	987.248	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	683	171	340	895	0.764	712	680	10.6	3.5	22.178	C
2 - A283 South	554	138	484	669	0.828	650	567	34.6	10.5	132.122	F
3 - A283 North	967	242	248	772	1.253	772	886	262.1	311.0	1326.317	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	572	143	352	886	0.646	579	640	3.5	1.9	11.944	B
2 - A283 South	464	116	394	717	0.647	498	537	10.5	1.9	18.850	C
3 - A283 North	810	203	190	802	1.010	801	701	311.0	313.2	1406.653	F

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	142.81	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-20	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	747	100.000
2 - A283 South		ONE HOUR	✓	577	100.000
3 - A283 North		ONE HOUR	✓	803	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	568
	2 - A283 South	202	0	375
	3 - A283 North	504	297	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.89	32.03	6.9	D	685	1028
2 - A283 South	1.07	163.94	30.5	F	529	794
3 - A283 North	1.12	230.69	55.8	F	737	1105

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	562	141	221	977	0.576	557	525	0.0	1.3	8.469	A
2 - A283 South	434	109	427	699	0.622	428	351	0.0	1.6	13.014	B
3 - A283 North	605	151	152	822	0.735	594	703	0.0	2.6	15.179	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	672	168	263	948	0.708	668	625	1.3	2.3	12.659	B
2 - A283 South	519	130	512	654	0.793	511	419	1.6	3.4	24.012	C
3 - A283 North	722	180	182	806	0.895	707	842	2.6	6.4	31.893	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	822	206	291	928	0.886	807	695	2.3	6.2	26.749	D
2 - A283 South	635	159	619	598	1.062	576	479	3.4	18.3	85.916	F
3 - A283 North	884	221	205	794	1.113	781	990	6.4	32.1	104.128	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	822	206	294	926	0.888	820	704	6.2	6.9	32.031	D
2 - A283 South	635	159	629	593	1.071	586	485	18.3	30.5	163.943	F
3 - A283 North	884	221	209	792	1.116	790	1006	32.1	55.8	212.547	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	672	168	288	931	0.722	688	704	6.9	2.7	15.744	C
2 - A283 South	519	130	528	646	0.803	618	448	30.5	5.7	109.902	F
3 - A283 North	722	180	219	787	0.917	773	927	55.8	43.0	230.685	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	562	141	284	933	0.603	567	639	2.7	1.6	9.954	A
2 - A283 South	434	109	435	695	0.625	450	416	5.7	1.7	15.607	C
3 - A283 North	605	151	160	818	0.739	763	726	43.0	3.4	96.810	F

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	575.14	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-37	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	760	100.000
2 - A283 South		ONE HOUR	✓	610	100.000
3 - A283 North		ONE HOUR	✓	1038	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	506
	2 - A283 South	223	3	384
	3 - A283 North	603	434	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.93	44.69	9.7	E	697	1046
2 - A283 South	1.07	162.70	32.1	F	560	840
3 - A283 North	1.47	1205.90	271.1	F	952	1429

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	572	143	312	914	0.626	566	602	0.0	1.6	10.166	B
2 - A283 South	459	115	385	721	0.637	453	493	0.0	1.7	13.096	B
3 - A283 North	781	195	175	810	0.965	739	662	0.0	10.5	39.395	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	683	171	332	900	0.759	678	663	1.6	3.0	15.847	C
2 - A283 South	548	137	461	681	0.805	541	549	1.7	3.6	24.311	C
3 - A283 North	933	233	209	792	1.178	786	792	10.5	47.2	146.811	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	837	209	329	902	0.928	815	685	3.0	8.4	34.807	D
2 - A283 South	672	168	554	632	1.062	610	590	3.6	19.2	84.801	F
3 - A283 North	1143	286	237	778	1.470	777	927	47.2	138.6	439.756	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	837	209	328	903	0.927	831	688	8.4	9.7	44.691	E
2 - A283 South	672	168	565	626	1.072	620	594	19.2	32.1	162.699	F
3 - A283 North	1143	286	241	776	1.473	776	944	138.6	230.4	865.689	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	683	171	326	904	0.756	709	694	9.7	3.3	20.445	C
2 - A283 South	548	137	482	670	0.818	649	553	32.1	6.9	116.725	F
3 - A283 North	933	233	250	771	1.211	771	881	230.4	271.1	1165.915	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	572	143	338	895	0.639	578	649	3.3	1.8	11.553	B
2 - A283 South	459	115	393	717	0.641	479	523	6.9	1.9	16.343	C
3 - A283 North	781	195	185	805	0.971	802	687	271.1	266.0	1205.898	F

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	155.11	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-19	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	751	100.000
2 - A283 South		ONE HOUR	✓	606	100.000
3 - A283 North		ONE HOUR	✓	801	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	572
	2 - A283 South	202	0	404
	3 - A283 North	503	296	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.89	33.37	7.2	D	689	1034
2 - A283 South	1.13	227.93	45.3	F	556	834
3 - A283 North	1.11	214.14	52.8	F	735	1103

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	565	141	221	978	0.578	560	524	0.0	1.3	8.517	A
2 - A283 South	456	114	430	697	0.654	449	350	0.0	1.8	14.122	B
3 - A283 North	603	151	152	822	0.734	593	727	0.0	2.6	15.087	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	675	169	262	948	0.712	671	624	1.3	2.4	12.791	B
2 - A283 South	545	136	516	653	0.835	535	418	1.8	4.3	28.452	D
3 - A283 North	720	180	181	807	0.892	705	870	2.6	6.3	31.447	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	827	207	292	928	0.891	811	690	2.4	6.4	27.511	D
2 - A283 South	667	167	623	596	1.119	582	480	4.3	25.5	110.128	F
3 - A283 North	882	220	197	798	1.105	784	1008	6.3	30.8	100.373	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	827	207	295	925	0.894	824	698	6.4	7.2	33.375	D
2 - A283 South	667	167	633	591	1.129	588	486	25.5	45.3	227.932	F
3 - A283 North	882	220	199	797	1.106	794	1021	30.8	52.8	201.571	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	675	169	289	930	0.726	693	700	7.2	2.8	16.150	C
2 - A283 South	545	136	532	644	0.846	630	449	45.3	24.0	201.202	F
3 - A283 North	720	180	213	790	0.911	776	949	52.8	38.9	214.142	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	565	141	277	938	0.603	570	651	2.8	1.6	9.915	A
2 - A283 South	456	114	439	693	0.658	544	409	24.0	2.1	37.918	E
3 - A283 North	603	151	184	805	0.749	744	799	38.9	3.6	88.057	F

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	588.70	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-37	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	758	100.000
2 - A283 South		ONE HOUR	✓	607	100.000
3 - A283 North		ONE HOUR	✓	1044	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	504
	2 - A283 South	223	3	381
	3 - A283 North	606	437	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.93	43.83	9.5	E	696	1043
2 - A283 South	1.07	155.48	30.4	F	557	835
3 - A283 North	1.48	1236.18	277.5	F	958	1437

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	571	143	314	913	0.625	564	604	0.0	1.6	10.154	B
2 - A283 South	457	114	383	722	0.633	450	494	0.0	1.7	12.962	B
3 - A283 North	786	196	175	810	0.970	742	659	0.0	11.0	40.512	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	681	170	333	899	0.758	676	663	1.6	2.9	15.758	C
2 - A283 South	546	136	459	682	0.800	538	550	1.7	3.6	23.811	C
3 - A283 North	939	235	209	792	1.185	787	788	11.0	48.9	151.597	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	835	209	329	902	0.925	813	685	2.9	8.2	34.355	D
2 - A283 South	668	167	552	633	1.055	609	590	3.6	18.3	82.082	F
3 - A283 North	1149	287	238	777	1.479	777	924	48.9	142.1	451.984	F

17:30 - 17:45

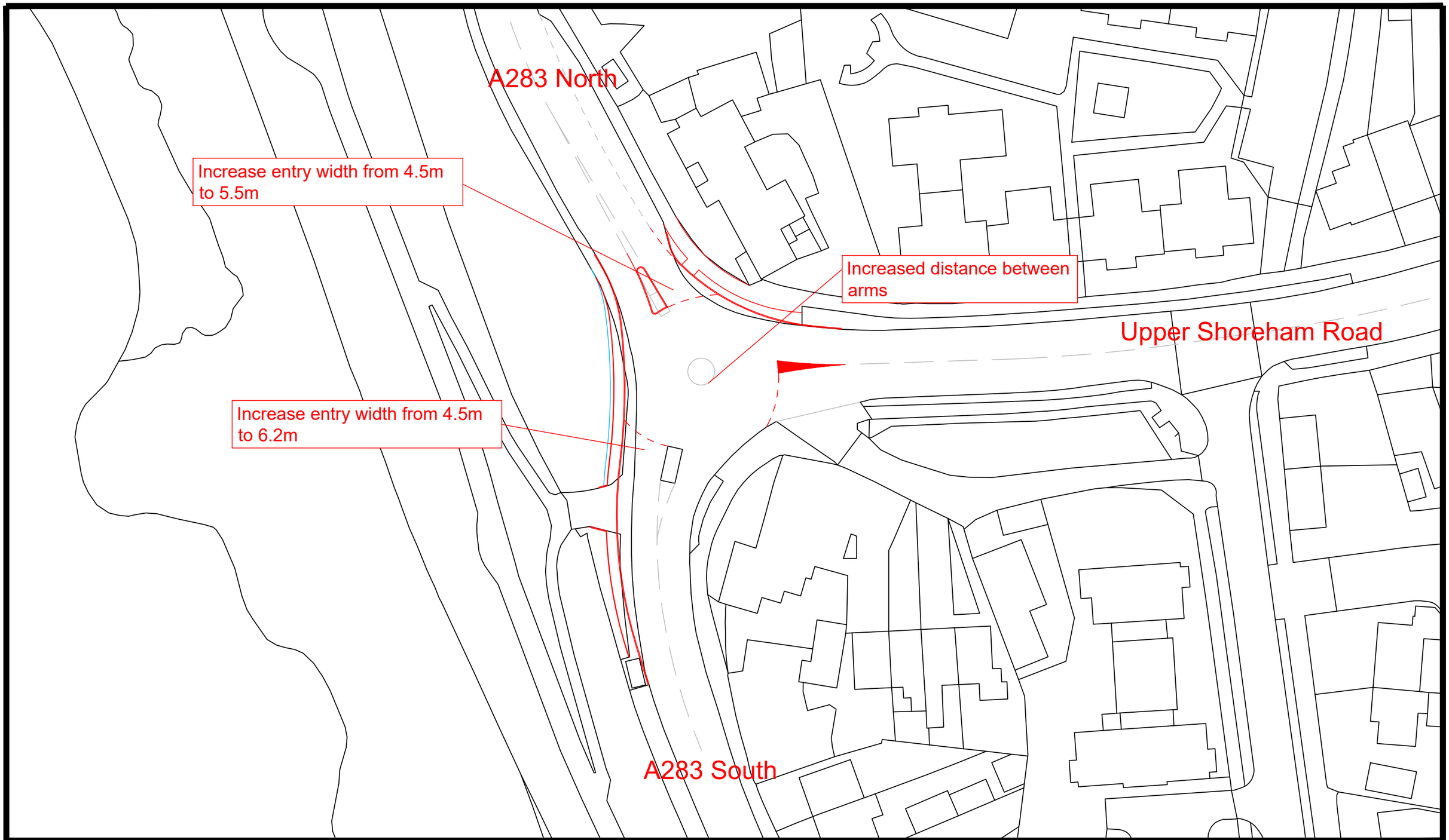
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	835	209	328	902	0.925	829	689	8.2	9.5	43.830	E
2 - A283 South	668	167	563	628	1.065	620	594	18.3	30.4	155.481	F
3 - A283 North	1149	287	242	775	1.483	775	941	142.1	235.7	885.948	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	681	170	327	903	0.754	706	693	9.5	3.3	20.158	C
2 - A283 South	546	136	480	671	0.813	643	553	30.4	6.1	106.798	F
3 - A283 North	939	235	249	771	1.217	771	874	235.7	277.5	1191.321	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	571	143	339	895	0.638	577	647	3.3	1.8	11.506	B
2 - A283 South	457	114	392	718	0.637	474	524	6.1	1.8	15.734	C
3 - A283 North	786	196	184	805	0.976	802	682	277.5	273.5	1236.182	F



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H I G H W A Y S

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A283 / UPPER SHOREHAM ROAD

Date	Drawn		
12/11/2021	MAW		
Checked	Date	Approved	Date
Scale: 1/500@A3	Drg No.: APPENDIX 6.3		Rev.

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 8 - C - A283 - Upper Shm Rd - Improved Jct - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\8 - A283 Upper Shoreham Rd
Report generation date: 11/11/2021 16:23:25

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - Upper Shoreham Road	9.3	43.31	0.92	E	82.62	F	-16 % [3 - A283 North]	14.5	65.30	0.97	F	471.86	F	-35 % [3 - A283 North]
2 - A283 South	4.2	23.91	0.82	C				3.8	20.83	0.80	C			
3 - A283 North	43.6	162.27	1.08	F				250.7	1023.87	1.44	F			
Scenario 2 Total														
1 - Upper Shoreham Road	9.1	42.21	0.92	E	79.26	F	-15 % [3 - A283 North]	14.1	63.77	0.96	F	484.29	F	-35 % [3 - A283 North]
2 - A283 South	4.2	23.68	0.82	C				3.6	19.80	0.79	C			
3 - A283 North	41.2	154.88	1.07	F				255.8	1047.23	1.45	F			
Scenario 3 Total														
1 - Upper Shoreham Road	8.2	38.53	0.91	E	71.47	F	-14 % [3 - A283 North]	12.6	57.57	0.95	F	400.85	F	-33 % [3 - A283 North]
2 - A283 South	3.3	19.44	0.78	C				3.4	19.22	0.78	C			
3 - A283 North	36.2	139.50	1.06	F				217.3	876.45	1.40	F			
Scenario 4 Total														
1 - Upper Shoreham Road	8.6	39.92	0.92	E	71.18	F	-14 % [3 - A283 North]	12.3	56.47	0.95	F	412.16	F	-33 % [3 - A283 North]
2 - A283 South	4.2	23.62	0.82	C				3.4	18.79	0.78	C			
3 - A283 North	35.3	136.47	1.05	F				223.3	899.12	1.40	F			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	82.62	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-16	3 - A283 North

Arms

Arms

Arm	Name	Description
1	Upper Shoreham Road	
2	A283 South	
3	A283 North	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Upper Shoreham Road	4.70	4.70	6.50	8.9	16.80	9.80	0.0	
2 - A283 South	3.60	3.60	6.20	22.1	18.30	14.10	0.0	✓
3 - A283 North	4.00	4.00	5.50	2.8	16.70	10.00	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Upper Shoreham Road	0.698	1119
2 - A283 South	0.589	1188
3 - A283 North	0.540	959

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	753	100.000
2 - A283 South		ONE HOUR	✓	607	100.000
3 - A283 North		ONE HOUR	✓	819	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	574
	2 - A283 South	202	0	405
	3 - A283 North	506	311	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.92	43.31	9.3	E	691	1036
2 - A283 South	0.82	23.91	4.2	C	557	835
3 - A283 North	1.08	162.27	43.6	F	752	1127

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	567	142	232	957	0.593	561	528	0.0	1.4	8.981	A
2 - A283 South	457	114	432	933	0.490	453	362	0.0	0.9	7.440	A
3 - A283 North	617	154	153	876	0.704	608	732	0.0	2.3	13.013	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	677	169	277	925	0.732	672	631	1.4	2.6	13.966	B
2 - A283 South	546	136	517	883	0.618	543	432	0.9	1.6	10.514	B
3 - A283 North	736	184	183	860	0.857	725	877	2.3	5.0	24.886	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	829	207	313	901	0.921	808	728	2.6	7.9	33.048	D
2 - A283 South	668	167	621	822	0.813	659	499	1.6	3.9	21.031	C
3 - A283 North	902	225	223	838	1.076	818	1058	5.0	26.0	83.207	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	829	207	318	897	0.924	823	739	7.9	9.3	43.312	E
2 - A283 South	668	167	633	815	0.820	667	508	3.9	4.2	23.913	C
3 - A283 North	902	225	225	837	1.077	831	1075	26.0	43.6	162.267	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	677	169	320	895	0.756	701	705	9.3	3.3	20.413	C
2 - A283 South	546	136	539	870	0.627	556	482	4.2	1.7	11.791	B
3 - A283 North	736	184	188	857	0.859	838	907	43.6	18.1	137.288	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	567	142	259	938	0.605	574	575	3.3	1.6	10.081	B
2 - A283 South	457	114	441	928	0.493	460	392	1.7	1.0	7.747	A
3 - A283 North	617	154	155	875	0.705	679	746	18.1	2.5	23.792	C

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	471.86	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	763	100.000
2 - A283 South		ONE HOUR	✓	623	100.000
3 - A283 North		ONE HOUR	✓	1071	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	509
	2 - A283 South	223	3	397
	3 - A283 North	606	464	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.97	65.30	14.5	F	700	1050
2 - A283 South	0.80	20.83	3.8	C	572	858
3 - A283 North	1.44	1023.87	250.7	F	983	1474

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	144	338	883	0.650	567	611	0.0	1.8	11.160	B
2 - A283 South	469	117	387	960	0.489	465	518	0.0	0.9	7.224	A
3 - A283 North	806	202	176	863	0.934	772	676	0.0	8.5	32.372	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	686	171	365	864	0.794	679	681	1.8	3.5	18.796	C
2 - A283 South	560	140	463	915	0.612	558	582	0.9	1.5	10.006	B
3 - A283 North	963	241	211	844	1.140	835	809	8.5	40.4	120.013	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	840	210	359	868	0.968	809	717	3.5	11.4	45.356	E
2 - A283 South	686	171	551	863	0.795	678	617	1.5	3.5	18.681	C
3 - A283 North	1179	295	257	820	1.438	820	972	40.4	130.3	384.065	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	840	210	359	868	0.967	828	719	11.4	14.5	65.303	F
2 - A283 South	686	171	564	855	0.802	685	623	3.5	3.8	20.825	C
3 - A283 North	1179	295	259	819	1.441	818	989	130.3	220.5	767.888	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	686	171	368	862	0.796	726	689	14.5	4.4	31.895	D
2 - A283 South	560	140	495	896	0.625	568	600	3.8	1.7	11.253	B
3 - A283 North	963	241	216	842	1.143	842	848	220.5	250.7	1010.592	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	144	375	857	0.670	583	662	4.4	2.1	13.556	B
2 - A283 South	469	117	398	953	0.492	472	561	1.7	1.0	7.525	A
3 - A283 North	806	202	179	862	0.935	859	691	250.7	237.6	1023.870	F

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	79.26	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-15	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	752	100.000
2 - A283 South		ONE HOUR	✓	606	100.000
3 - A283 North		ONE HOUR	✓	814	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	573
	2 - A283 South	202	0	404
	3 - A283 North	505	307	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.92	42.21	9.1	E	690	1035
2 - A283 South	0.82	23.68	4.2	C	556	834
3 - A283 North	1.07	154.88	41.2	F	747	1120

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	566	142	229	959	0.591	561	528	0.0	1.4	8.920	A
2 - A283 South	456	114	431	934	0.489	452	359	0.0	0.9	7.422	A
3 - A283 North	613	153	153	876	0.700	604	730	0.0	2.2	12.851	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	676	169	274	928	0.729	671	631	1.4	2.5	13.802	B
2 - A283 South	545	136	516	884	0.617	542	429	0.9	1.6	10.471	B
3 - A283 North	732	183	183	859	0.851	721	875	2.2	4.9	24.272	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	828	207	310	902	0.918	807	729	2.5	7.7	32.422	D
2 - A283 South	667	167	620	822	0.812	658	497	1.6	3.8	20.875	C
3 - A283 North	896	224	223	838	1.069	817	1056	4.9	24.8	80.386	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	828	207	315	899	0.921	823	741	7.7	9.1	42.211	E
2 - A283 South	667	167	632	815	0.819	666	506	3.8	4.2	23.676	C
3 - A283 North	896	224	225	837	1.071	831	1073	24.8	41.2	154.878	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	676	169	318	897	0.754	699	707	9.1	3.3	19.971	C
2 - A283 South	545	136	538	871	0.626	555	479	4.2	1.7	11.716	B
3 - A283 North	732	183	188	857	0.854	837	905	41.2	14.9	126.188	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	566	142	251	943	0.600	573	566	3.3	1.5	9.900	A
2 - A283 South	456	114	441	928	0.492	459	384	1.7	1.0	7.726	A
3 - A283 North	613	153	155	875	0.701	663	744	14.9	2.5	20.605	C

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	484.29	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	760	100.000
2 - A283 South		ONE HOUR	✓	616	100.000
3 - A283 North		ONE HOUR	✓	1076	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	506
	2 - A283 South	223	3	390
	3 - A283 North	607	468	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.96	63.77	14.1	F	697	1046
2 - A283 South	0.79	19.80	3.6	C	565	848
3 - A283 North	1.45	1047.23	255.8	F	987	1481

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	572	143	340	881	0.649	565	611	0.0	1.8	11.143	B
2 - A283 South	464	116	384	961	0.482	460	521	0.0	0.9	7.134	A
3 - A283 North	810	203	176	863	0.938	775	668	0.0	8.8	33.087	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	683	171	367	863	0.792	676	680	1.8	3.5	18.668	C
2 - A283 South	554	138	460	917	0.604	551	583	0.9	1.5	9.798	A
3 - A283 North	967	242	211	844	1.145	836	800	8.8	41.6	123.237	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	837	209	360	867	0.965	806	716	3.5	11.1	44.664	E
2 - A283 South	678	170	548	865	0.784	671	619	1.5	3.3	17.913	C
3 - A283 North	1185	296	257	820	1.445	819	962	41.6	132.9	392.662	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	837	209	360	867	0.965	825	718	11.1	14.1	63.773	F
2 - A283 South	678	170	561	857	0.791	677	624	3.3	3.6	19.796	C
3 - A283 North	1185	296	259	818	1.447	818	979	132.9	224.5	782.235	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	683	171	370	861	0.794	722	688	14.1	4.3	30.994	D
2 - A283 South	554	138	491	898	0.617	561	601	3.6	1.7	10.924	B
3 - A283 North	967	242	215	842	1.149	842	837	224.5	255.8	1029.638	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	572	143	377	856	0.668	581	661	4.3	2.1	13.478	B
2 - A283 South	464	116	395	955	0.486	467	562	1.7	1.0	7.413	A
3 - A283 North	810	203	179	862	0.940	859	683	255.8	243.7	1047.232	F

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	71.47	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-14	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	747	100.000
2 - A283 South		ONE HOUR	✓	577	100.000
3 - A283 North		ONE HOUR	✓	803	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	568
	2 - A283 South	202	0	375
	3 - A283 North	504	297	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.91	38.53	8.2	E	685	1028
2 - A283 South	0.78	19.44	3.3	C	529	794
3 - A283 North	1.06	139.50	36.2	F	737	1105

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	562	141	222	964	0.583	557	527	0.0	1.4	8.734	A
2 - A283 South	434	109	427	936	0.464	431	352	0.0	0.9	7.084	A
3 - A283 North	605	151	153	876	0.690	596	705	0.0	2.1	12.512	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	672	168	265	934	0.719	667	631	1.4	2.4	13.296	B
2 - A283 South	519	130	512	886	0.585	517	421	0.9	1.4	9.688	A
3 - A283 North	722	180	184	859	0.840	712	845	2.1	4.6	23.007	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	822	206	303	907	0.906	804	733	2.4	7.1	30.331	D
2 - A283 South	635	159	616	824	0.771	628	490	1.4	3.1	17.769	C
3 - A283 North	884	221	223	838	1.055	813	1022	4.6	22.4	74.562	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	822	206	309	903	0.910	818	746	7.1	8.2	38.534	E
2 - A283 South	635	159	627	818	0.777	634	499	3.1	3.3	19.435	C
3 - A283 North	884	221	225	837	1.057	829	1036	22.4	36.2	139.503	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	672	168	311	902	0.745	692	711	8.2	3.1	18.575	C
2 - A283 South	519	130	531	875	0.593	526	472	3.3	1.5	10.525	B
3 - A283 North	722	180	187	858	0.842	834	870	36.2	8.1	103.329	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	562	141	234	956	0.589	569	549	3.1	1.5	9.463	A
2 - A283 South	434	109	436	930	0.467	437	366	1.5	0.9	7.327	A
3 - A283 North	605	151	155	875	0.691	628	718	8.1	2.3	15.801	C

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	400.85	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-33	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	760	100.000
2 - A283 South		ONE HOUR	✓	610	100.000
3 - A283 North		ONE HOUR	✓	1038	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	506
	2 - A283 South	223	3	384
	3 - A283 North	603	434	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.95	57.57	12.6	F	697	1046
2 - A283 South	0.78	19.22	3.4	C	560	840
3 - A283 North	1.40	876.45	217.3	F	952	1429

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	572	143	318	897	0.638	565	612	0.0	1.7	10.660	B
2 - A283 South	459	115	385	961	0.478	456	499	0.0	0.9	7.074	A
3 - A283 North	781	195	176	863	0.905	754	664	0.0	6.9	28.143	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	683	171	351	874	0.782	677	691	1.7	3.3	17.703	C
2 - A283 South	548	137	460	916	0.598	546	567	0.9	1.5	9.665	A
3 - A283 North	933	233	211	844	1.105	831	795	6.9	32.5	100.385	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	837	209	347	877	0.954	809	729	3.3	10.2	41.551	E
2 - A283 South	672	168	550	863	0.778	665	605	1.5	3.2	17.492	C
3 - A283 North	1143	286	257	820	1.394	819	958	32.5	113.4	330.469	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	837	209	346	877	0.954	827	731	10.2	12.6	57.574	F
2 - A283 South	672	168	562	856	0.784	671	611	3.2	3.4	19.221	C
3 - A283 North	1143	286	259	818	1.396	818	974	113.4	194.5	676.108	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	683	171	356	871	0.785	718	702	12.6	4.0	27.388	D
2 - A283 South	548	137	488	900	0.609	556	585	3.4	1.6	10.669	B
3 - A283 North	933	233	215	842	1.108	842	828	194.5	217.3	876.451	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	572	143	362	866	0.661	580	675	4.0	2.0	12.913	B
2 - A283 South	459	115	395	955	0.481	462	547	1.6	0.9	7.340	A
3 - A283 North	781	195	179	862	0.907	858	678	217.3	198.1	871.768	F

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	71.18	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-14	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	751	100.000
2 - A283 South		ONE HOUR	✓	606	100.000
3 - A283 North		ONE HOUR	✓	801	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	572
	2 - A283 South	202	0	404
	3 - A283 North	503	296	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.92	39.92	8.6	E	689	1034
2 - A283 South	0.82	23.62	4.2	C	556	834
3 - A283 North	1.05	136.47	35.3	F	735	1103

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	565	141	221	964	0.586	560	526	0.0	1.4	8.785	A
2 - A283 South	456	114	430	934	0.488	452	351	0.0	0.9	7.416	A
3 - A283 North	603	151	153	876	0.688	595	730	0.0	2.1	12.452	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	675	169	264	934	0.723	671	630	1.4	2.5	13.437	B
2 - A283 South	545	136	515	884	0.616	542	420	0.9	1.6	10.459	B
3 - A283 North	720	180	183	859	0.838	711	874	2.1	4.5	22.782	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	827	207	302	908	0.911	807	733	2.5	7.3	31.085	D
2 - A283 South	667	167	620	822	0.812	658	489	1.6	3.8	20.862	C
3 - A283 North	882	220	223	838	1.052	812	1056	4.5	21.9	73.349	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	827	207	308	904	0.915	822	745	7.3	8.6	39.919	E
2 - A283 South	667	167	631	816	0.818	666	499	3.8	4.2	23.624	C
3 - A283 North	882	220	225	837	1.054	828	1072	21.9	35.3	136.466	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	675	169	309	903	0.748	697	709	8.6	3.2	18.988	C
2 - A283 South	545	136	536	872	0.625	555	470	4.2	1.7	11.669	B
3 - A283 North	720	180	188	857	0.840	830	902	35.3	7.7	99.374	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	565	141	232	957	0.591	572	548	3.2	1.5	9.519	A
2 - A283 South	456	114	440	929	0.491	459	365	1.7	1.0	7.717	A
3 - A283 North	603	151	155	875	0.689	625	743	7.7	2.3	15.506	C

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	412.16	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-33	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	758	100.000
2 - A283 South		ONE HOUR	✓	607	100.000
3 - A283 North		ONE HOUR	✓	1044	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	504
	2 - A283 South	223	3	381
	3 - A283 North	606	437	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.95	56.47	12.3	F	696	1043
2 - A283 South	0.78	18.79	3.4	C	557	835
3 - A283 North	1.40	899.12	223.3	F	958	1437

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	571	143	320	895	0.637	564	614	0.0	1.7	10.654	B
2 - A283 South	457	114	383	962	0.475	453	501	0.0	0.9	7.031	A
3 - A283 North	786	196	176	863	0.910	757	660	0.0	7.1	28.854	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	681	170	352	873	0.780	675	691	1.7	3.3	17.608	C
2 - A283 South	546	136	459	917	0.595	544	568	0.9	1.4	9.572	A
3 - A283 North	939	235	211	844	1.111	832	791	7.1	33.9	103.772	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	835	209	347	877	0.952	807	729	3.3	10.1	41.029	E
2 - A283 South	668	167	548	865	0.773	661	606	1.4	3.1	17.164	C
3 - A283 North	1149	287	257	820	1.402	819	953	33.9	116.4	339.989	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	835	209	347	877	0.952	826	731	10.1	12.3	56.472	F
2 - A283 South	668	167	561	857	0.780	667	612	3.1	3.4	18.791	C
3 - A283 North	1149	287	259	818	1.404	818	969	116.4	199.2	692.598	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	681	170	356	870	0.783	715	701	12.3	4.0	26.834	D
2 - A283 South	546	136	486	902	0.605	553	585	3.4	1.6	10.525	B
3 - A283 North	939	235	215	842	1.114	842	823	199.2	223.3	898.695	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	571	143	362	866	0.659	578	675	4.0	2.0	12.848	B
2 - A283 South	457	114	393	956	0.478	460	548	1.6	0.9	7.287	A
3 - A283 North	786	196	179	862	0.912	858	674	223.3	205.3	899.118	F

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham** **A283/Upper Shoreham Road**
BUDGET COST ESTIMATE FOR **OFF-SITE HIGHWAY WORKS**	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A283/Upper Shoreham Road Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-08A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	1000.00	1,000.00
1.02	REMOVE CONCRETE KERBS	115.00	m	15.00	1,725.00
1.03	REMOVE EDGING KERB	49.00	m	3.00	147.00
1.04	REMOVE LIGHTING COLUMNS	2.00	ITEM	750.00	1,500.00
1.05	REMOVE GULLIES	4.00	No	450.00	1,800.00
1.06	REMOVE TRAFFIC SIGNS	3.00	No	350.00	1,050.00
1.07	REMOVE BOLLARDS	2.00	No	350.00	700.00
					7,922.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	64.00	Cum	22.00	1,408.00
2.02	EXCAVATE HARD AND DISPOSE	20.00	Cum	55.00	1,100.00
2.03	DISPOSE U/S	84.00	Cum	50.00	4,200.00
2.04	FORMATION AND SUB-FORMATION	100.00	Sqm	1.20	120.00
2.05	PLANE CARRIAGEWAY (40mm)	860.00	Sqm	3.50	3,010.00
2.06	PLANE FOOTWAY (20mm)	63.00	Sqm	2.50	157.50
2.07	IMPORT CAPPING AND COMPACT	24.00	Cum	18.00	432.00
					10,427.50
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	18.00	Cum	25.00	450.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	81.00	Sqm	22.00	1,782.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	81.00	Sqm	24.00	1,944.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	941.00	Sqm	18.00	16,938.00
3.05	CONCRETE KERBING	106.00	m	20.00	2,120.00
3.06	CHANNEL KERB	15.00	m	16.00	240.00
3.07	EDGING	49.00	m	12.00	588.00
3.08	SUB BASE - FOOTWAY(150mm)	14.00	Cum	18.00	252.00
3.09	FOOTWAY SURFACE COURSE (20mm)	156.00	Sqm	8.00	1,248.00
3.10	FOOTWAY BINDER COURSE (50mm)	93.00	Sqm	11.00	1,023.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	25.00	Sqm	30.00	750.00
					27,335.00

APPENDIX 6.5
BUDGET COST ESTIMATE FOR
OFF-SITE HIGHWAY WORKS

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	4.00	No	600.00	2,400.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	4.00	No	500.00	2,000.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					4,400.00
5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	2500.00	2500.00
5.02	BOLLARDS	2.00	No	600.00	1200.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	3.00	No	750.00	2250.00
5.04	ADS and POSTs	0.00	No	1250.00	0.00
					5,950.00
7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	4000.00	4,000.00
7.02	STREET LIGHTING COLUMN	2.00	No.	1800.00	3,600.00
7.03	LIGHTING DUCTING	25.00	m	20.00	500.00
7.04	TOPSOIL & SEED	0.00	Sqm	12.50	0.00
7.05	VEHICLE RESTRAINT BARRIER	0.00	ITEM	25000.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	1500.00	1,500.00
					9,600.00

	SUMMARY	
	Preliminaries 15%	£8,405.18
1.0	Site Clearance	£7,922.00
2.0	Earthworks	£10,427.50
3.0	Pavement	£27,335.00
4.0	Drainage	£4,400.00
5.0	Signs and Markings	£5,950.00
6.0	Other	£9,600.00
		£74,040

CONTINGENCY 10%	£7,404
CIVILS TOTAL	£81,444

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

THE ESTIMATE INCLUDES THE RESURFACING OF ALL APPROACH ROADS AND THE WHOLE GYRATORY

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

7.0 Junction 9 – A283 / A259 Roundabout

7.1 ARCADY Output: 2033 Baseline Scenario
7.2 ARCADY Outputs: Proposed Development Scenarios
7.3 Proposed Junction Improvements
7.4 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
7.5 Budget Cost Estimate for Off-Site Highway Works

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 9 - A - A283 - A259 - Existing Jct - 2033 Base incl permitted.j9
Path: D:\5201 Shoreham\Amol\9- A283 + A259
Report generation date: 11/11/2021 16:34:33

»2033 Base incl permitted, AM
»2033 Base incl permitted, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Base incl permitted													
1 - A259 East	29.4	111.12	1.03	F	907.15	F	-41 % [2 - A259 West]	325.6	1369.98	1.65	F	581.59	F	-35 % [1 - A259 East]
2 - A259 West	497.5	1682.74	1.60	F				63.0	173.47	1.09	F			
3 - A283	1.2	8.04	0.56	A				9.8	45.61	0.93	E			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

APPENDIX 7.1
ARCADY OUTPUT: 2033
BASELINE SCENARIO

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base incl permitted	AM	ONE HOUR	07:45	09:15	15	✓
D2	2033 Base incl permitted	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base incl permitted, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 82% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	907.15	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-41	2 - A259 West

Arms

Arms

Arm	Name	Description
1	A259 East	
2	A259 West	
3	A283	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - A259 East	4.00	4.00	8.00	4.5	20.00	17.40	0.0	✓
2 - A259 West	4.20	4.20	7.00	15.0	16.50	14.00	0.0	✓
3 - A283	4.80	4.80	8.70	5.9	20.00	19.60	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A259 East	0.639	1196
2 - A259 West	0.606	1164
3 - A283	0.844	1546

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base incl permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	836	100.000
2 - A259 West		ONE HOUR	✓	1481	100.000
3 - A283		ONE HOUR	✓	506	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	141
	2 - A259 West	819	1	661
	3 - A283	171	334	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	22
	2 - A259 West	5	0	1
	3 - A283	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.03	111.12	29.4	F	767	1151
2 - A259 West	1.60	1682.74	497.5	F	1359	2038
3 - A283	0.56	8.04	1.2	A	464	696

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	629	157	251	965	0.652	622	688	0.0	1.8	10.305	B
2 - A259 West	1115	279	106	1052	1.060	1012	767	0.0	25.7	57.391	F
3 - A283	381	95	561	1009	0.378	379	557	0.0	0.6	5.692	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	752	188	301	934	0.804	744	727	1.8	3.7	18.192	C
2 - A259 West	1331	333	127	1037	1.284	1035	918	25.7	99.7	228.010	F
3 - A283	455	114	574	998	0.456	454	588	0.6	0.8	6.612	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	920	230	368	893	1.030	859	754	3.7	19.1	62.057	F
2 - A259 West	1631	408	147	1023	1.594	1023	1080	99.7	251.6	624.961	F
3 - A283	557	139	567	1003	0.555	556	602	0.8	1.2	8.008	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	920	230	370	893	1.031	879	754	19.1	29.4	111.123	F
2 - A259 West	1631	408	150	1020	1.598	1020	1098	251.6	404.2	1157.064	F
3 - A283	557	139	566	1005	0.555	557	605	1.2	1.2	8.043	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	752	188	303	933	0.805	850	722	29.4	4.9	59.186	F
2 - A259 West	1331	333	145	1024	1.300	1024	1007	404.2	481.1	1544.727	F
3 - A283	455	114	568	1003	0.454	456	601	1.2	0.8	6.609	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	629	157	253	963	0.653	641	710	4.9	1.9	11.552	B
2 - A259 West	1115	279	110	1049	1.062	1049	785	481.1	497.5	1682.736	F
3 - A283	381	95	582	991	0.384	382	577	0.8	0.6	5.918	A

2033 Base incl permitted, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	581.59	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base incl permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1064	100.000
2 - A259 West		ONE HOUR	✓	1091	100.000
3 - A283		ONE HOUR	✓	749	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	115
	2 - A259 West	737	18	336
	3 - A283	89	657	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.65	1369.98	325.6	F	976	1465
2 - A259 West	1.09	173.47	63.0	F	1001	1502
3 - A283	0.93	45.61	9.8	E	687	1031

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	801	200	506	855	0.937	766	614	0.0	8.7	33.161	D
2 - A259 West	821	205	85	1096	0.749	810	1188	0.0	2.8	12.147	B
3 - A283	564	141	561	1054	0.535	559	335	0.0	1.1	7.213	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	957	239	605	793	1.207	787	731	8.7	51.1	153.445	F
2 - A259 West	981	245	88	1095	0.896	965	1304	2.8	6.8	25.009	D
3 - A283	673	168	668	963	0.699	669	385	1.1	2.2	12.069	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1171	293	724	718	1.631	718	826	51.1	164.5	552.419	F
2 - A259 West	1201	300	81	1099	1.093	1082	1361	6.8	36.6	84.988	F
3 - A283	825	206	749	894	0.923	802	414	2.2	8.0	33.084	D

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1171	293	738	709	1.652	709	837	164.5	280.1	1072.370	F
2 - A259 West	1201	300	80	1099	1.093	1096	1368	36.6	63.0	173.469	F
3 - A283	825	206	758	886	0.931	817	417	8.0	9.8	45.612	E

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	957	239	634	775	1.235	774	811	280.1	325.6	1369.985	F
2 - A259 West	981	245	87	1095	0.895	1078	1322	63.0	38.7	171.987	F
3 - A283	673	168	746	896	0.752	699	419	9.8	3.2	20.353	C

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	801	200	519	847	0.946	844	718	325.6	314.8	1365.961	F
2 - A259 West	821	205	94	1091	0.753	963	1270	38.7	3.4	49.603	E
3 - A283	564	141	666	964	0.585	571	390	3.2	1.4	9.318	A

Junctions 9

ARCADY 9 - Roundabout Module

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Filename: 9 - B - A283 - A259 - Existing Jct - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\9- A283 + A259
Report generation date: 11/11/2021 16:35:27

»2033 Base minus permitted, AM
»2033 Base minus permitted, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 7.2
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base minus permitted														
1 - A259 East	26.1	100.87	1.02	F	873.01	F	-40 % [2 - A259 West]	320.8	1345.48	1.64	F	572.96	F	-34 % [1 - A259 East]
2 - A259 West	479.2	1618.79	1.58	F				62.9	173.26	1.09	F			
3 - A283	1.2	7.99	0.55	A				8.7	41.27	0.92	E			
Scenario 1 Total														
1 - A259 East	37.5	134.47	1.06	F	989.65	F	-42 % [2 - A259 West]	364.6	1569.46	1.71	F	667.18	F	-36 % [1 - A259 East]
2 - A259 West	542.3	1840.81	1.64	F				68.5	194.65	1.10	F			
3 - A283	1.3	8.25	0.57	A				18.7	77.29	0.99	F			
Scenario 2 Total														
1 - A259 East	37.5	134.47	1.06	F	988.52	F	-42 % [2 - A259 West]	357.2	1535.64	1.69	F	651.25	F	-36 % [1 - A259 East]
2 - A259 West	541.0	1836.66	1.64	F				67.4	189.54	1.10	F			
3 - A283	1.3	8.17	0.57	A				19.8	80.80	1.00	F			
Scenario 3 Total														
1 - A259 East	31.9	117.99	1.04	F	929.99	F	-41 % [2 - A259 West]	344.3	1459.71	1.68	F	620.56	F	-35 % [1 - A259 East]
2 - A259 West	510.1	1727.68	1.61	F				65.8	183.75	1.10	F			
3 - A283	1.3	8.11	0.56	A				12.8	57.06	0.96	F			
Scenario 4 Total														
1 - A259 East	37.0	132.84	1.05	F	991.87	F	-42 % [2 - A259 West]	342.1	1452.23	1.68	F	616.07	F	-35 % [1 - A259 East]
2 - A259 West	541.0	1836.58	1.64	F				65.6	182.52	1.10	F			
3 - A283	1.2	7.95	0.56	A				13.2	58.44	0.96	F			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base minus permitted, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 82% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	873.01	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-40	2 - A259 West

Arms

Arms

Arm	Name	Description
1	A259 East	
2	A259 West	
3	A283	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - A259 East	4.00	4.00	8.00	4.5	20.00	17.40	0.0	✓
2 - A259 West	4.20	4.20	7.00	15.0	16.50	14.00	0.0	✓
3 - A283	4.80	4.80	8.70	5.9	20.00	19.60	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A259 East	0.639	1196
2 - A259 West	0.606	1164
3 - A283	0.844	1546

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	829	100.000
2 - A259 West		ONE HOUR	✓	1472	100.000
3 - A283		ONE HOUR	✓	499	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	134
	2 - A259 West	819	1	652
	3 - A283	166	332	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	22
	2 - A259 West	5	0	1
	3 - A283	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.02	100.87	26.1	F	761	1141
2 - A259 West	1.58	1618.79	479.2	F	1351	2026
3 - A283	0.55	7.99	1.2	A	458	687

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	624	156	250	967	0.646	617	688	0.0	1.8	10.105	B
2 - A259 West	1108	277	101	1055	1.050	1013	766	0.0	23.8	54.294	F
3 - A283	376	94	565	1006	0.374	373	549	0.0	0.6	5.673	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	745	186	299	936	0.796	738	728	1.8	3.6	17.520	C
2 - A259 West	1323	331	121	1041	1.271	1039	916	23.8	94.8	215.724	F
3 - A283	449	112	580	993	0.452	448	581	0.6	0.8	6.591	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	913	228	366	896	1.019	857	755	3.6	17.5	58.112	F
2 - A259 West	1621	405	141	1027	1.578	1027	1083	94.8	243.2	599.052	F
3 - A283	549	137	573	999	0.550	548	595	0.8	1.2	7.957	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	913	228	367	895	1.020	878	754	17.5	26.1	100.866	F
2 - A259 West	1621	405	144	1025	1.582	1025	1101	243.2	392.2	1115.769	F
3 - A283	549	137	572	1000	0.550	549	597	1.2	1.2	7.990	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	745	186	301	935	0.797	832	724	26.1	4.5	48.535	E
2 - A259 West	1323	331	136	1030	1.284	1030	996	392.2	465.5	1489.903	F
3 - A283	449	112	575	997	0.450	450	592	1.2	0.8	6.597	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	624	156	252	965	0.647	635	712	4.5	1.9	11.205	B
2 - A259 West	1108	277	104	1053	1.052	1053	782	465.5	479.2	1618.786	F
3 - A283	376	94	587	987	0.381	377	570	0.8	0.6	5.908	A

2033 Base minus permitted, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	572.96	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-34	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1063	100.000
2 - A259 West		ONE HOUR	✓	1091	100.000
3 - A283		ONE HOUR	✓	739	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	114
	2 - A259 West	737	18	336
	3 - A283	85	651	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.64	1345.48	320.8	F	975	1463
2 - A259 West	1.09	173.26	62.9	F	1001	1502
3 - A283	0.92	41.27	8.7	E	678	1017

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	800	200	502	857	0.933	767	611	0.0	8.4	32.450	D
2 - A259 West	821	205	84	1097	0.749	810	1184	0.0	2.8	12.126	B
3 - A283	556	139	561	1054	0.528	552	334	0.0	1.1	7.106	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	956	239	600	796	1.201	790	728	8.4	49.9	149.597	F
2 - A259 West	981	245	87	1095	0.896	965	1302	2.8	6.8	24.978	C
3 - A283	664	166	668	963	0.690	660	384	1.1	2.1	11.723	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1170	293	720	721	1.623	721	822	49.9	162.3	541.637	F
2 - A259 West	1201	300	81	1099	1.093	1082	1360	6.8	36.6	84.894	F
3 - A283	814	203	749	894	0.910	793	414	2.1	7.3	30.914	D

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1170	293	733	713	1.642	713	833	162.3	276.8	1054.247	F
2 - A259 West	1201	300	80	1100	1.093	1096	1366	36.6	62.9	173.257	F
3 - A283	814	203	758	886	0.919	808	417	7.3	8.7	41.265	E

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	956	239	626	780	1.225	780	807	276.8	320.8	1345.479	F
2 - A259 West	981	245	86	1095	0.895	1078	1319	62.9	38.6	171.714	F
3 - A283	664	166	746	896	0.741	687	418	8.7	3.1	18.792	C

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	800	200	514	850	0.942	847	715	320.8	309.1	1338.415	F
2 - A259 West	821	205	93	1091	0.753	962	1268	38.6	3.4	49.360	E
3 - A283	556	139	666	965	0.577	563	389	3.1	1.4	9.104	A

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	989.65	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-42	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	857	100.000
2 - A259 West		ONE HOUR	✓	1504	100.000
3 - A283		ONE HOUR	✓	529	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	162
	2 - A259 West	819	1	684
	3 - A283	192	336	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	18
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.06	134.47	37.5	F	786	1180
2 - A259 West	1.64	1840.81	542.3	F	1380	2070
3 - A283	0.57	8.25	1.3	A	485	728

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	253	967	0.667	637	695	0.0	1.9	10.691	B
2 - A259 West	1132	283	122	1044	1.085	1011	768	0.0	30.4	65.421	F
3 - A283	398	100	552	1019	0.391	396	581	0.0	0.6	5.751	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	303	936	0.823	762	732	1.9	4.2	19.649	C
2 - A259 West	1352	338	146	1027	1.316	1026	919	30.4	111.9	259.335	F
3 - A283	476	119	560	1012	0.470	475	612	0.6	0.9	6.689	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	371	895	1.054	868	763	4.2	23.1	70.773	F
2 - A259 West	1656	414	166	1013	1.634	1013	1072	111.9	272.6	689.488	F
3 - A283	582	146	553	1018	0.572	581	626	0.9	1.3	8.202	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	372	894	1.055	886	763	23.1	37.5	134.467	F
2 - A259 West	1656	414	170	1011	1.638	1011	1088	272.6	433.8	1262.649	F
3 - A283	582	146	552	1019	0.572	582	628	1.3	1.3	8.245	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	305	935	0.824	895	724	37.5	6.2	88.435	F
2 - A259 West	1352	338	171	1010	1.339	1010	1029	433.8	519.4	1679.955	F
3 - A283	476	119	552	1019	0.467	477	629	1.3	0.9	6.664	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	255	966	0.668	662	712	6.2	2.1	12.446	B
2 - A259 West	1132	283	127	1041	1.088	1041	790	519.4	542.3	1840.813	F
3 - A283	398	100	568	1005	0.396	399	599	0.9	0.7	5.948	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	667.18	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-36	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1089	100.000
2 - A259 West		ONE HOUR	✓	1094	100.000
3 - A283		ONE HOUR	✓	805	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	140
	2 - A259 West	737	18	339
	3 - A283	124	678	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	2
	2 - A259 West	2	0	0
	3 - A283	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.71	1569.46	364.6	F	999	1499
2 - A259 West	1.10	194.65	68.5	F	1004	1506
3 - A283	0.99	77.29	18.7	F	739	1108

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	820	205	522	845	0.970	776	639	0.0	11.1	39.341	E
2 - A259 West	824	206	102	1086	0.758	812	1195	0.0	3.0	12.632	B
3 - A283	606	152	560	1055	0.574	601	353	0.0	1.3	7.829	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	979	245	623	782	1.252	778	761	11.1	61.3	184.213	F
2 - A259 West	983	246	103	1086	0.906	966	1298	3.0	7.4	26.686	D
3 - A283	724	181	667	965	0.750	718	402	1.3	2.8	14.228	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1199	300	733	713	1.681	713	855	61.3	182.8	628.558	F
2 - A259 West	1205	301	95	1091	1.105	1076	1351	7.4	39.5	90.978	F
3 - A283	886	222	743	900	0.985	845	428	2.8	13.1	46.925	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1199	300	749	703	1.705	703	866	182.8	306.7	1260.136	F
2 - A259 West	1205	301	94	1091	1.104	1088	1358	39.5	68.5	188.222	F
3 - A283	886	222	751	893	0.993	864	431	13.1	18.7	77.288	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	979	245	678	748	1.309	748	843	306.7	364.6	1546.986	F
2 - A259 West	983	246	99	1088	0.904	1072	1326	68.5	46.3	194.651	F
3 - A283	724	181	740	902	0.802	780	431	18.7	4.6	37.557	E

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	820	205	538	835	0.982	833	765	364.6	361.4	1569.464	F
2 - A259 West	824	206	109	1082	0.761	994	1262	46.3	3.7	71.247	F
3 - A283	606	152	686	948	0.639	617	417	4.6	1.8	11.216	B

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	988.52	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-42	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	857	100.000
2 - A259 West		ONE HOUR	✓	1503	100.000
3 - A283		ONE HOUR	✓	525	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	162
	2 - A259 West	819	1	683
	3 - A283	188	336	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	18
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.06	134.47	37.5	F	786	1180
2 - A259 West	1.64	1836.66	541.0	F	1379	2069
3 - A283	0.57	8.17	1.3	A	482	723

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	253	967	0.667	637	692	0.0	1.9	10.691	B
2 - A259 West	1132	283	122	1044	1.084	1010	768	0.0	30.3	65.189	F
3 - A283	395	99	552	1019	0.388	393	580	0.0	0.6	5.728	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	303	936	0.823	762	729	1.9	4.2	19.649	C
2 - A259 West	1351	338	146	1027	1.315	1026	919	30.3	111.5	258.465	F
3 - A283	472	118	561	1011	0.467	471	611	0.6	0.9	6.652	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	371	895	1.054	868	759	4.2	23.1	70.778	F
2 - A259 West	1655	414	166	1013	1.633	1013	1072	111.5	271.9	687.740	F
3 - A283	578	145	554	1017	0.568	576	626	0.9	1.3	8.132	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	372	894	1.055	886	759	23.1	37.5	134.474	F
2 - A259 West	1655	414	170	1011	1.637	1011	1088	271.9	432.9	1259.944	F
3 - A283	578	145	553	1018	0.568	578	628	1.3	1.3	8.173	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	305	935	0.824	895	721	37.5	6.2	88.437	F
2 - A259 West	1351	338	171	1010	1.338	1010	1029	432.9	518.3	1676.491	F
3 - A283	472	118	552	1019	0.463	474	629	1.3	0.9	6.623	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	255	966	0.668	662	710	6.2	2.1	12.446	B
2 - A259 West	1132	283	127	1041	1.087	1041	790	518.3	541.0	1836.659	F
3 - A283	395	99	568	1005	0.393	396	599	0.9	0.7	5.924	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	651.25	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-36	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1082	100.000
2 - A259 West		ONE HOUR	✓	1094	100.000
3 - A283		ONE HOUR	✓	808	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	133
	2 - A259 West	737	18	339
	3 - A283	127	678	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.69	1535.64	357.2	F	993	1489
2 - A259 West	1.10	189.54	67.4	F	1004	1506
3 - A283	1.00	80.80	19.8	F	741	1112

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	815	204	522	845	0.964	772	642	0.0	10.6	38.132	E
2 - A259 West	824	206	97	1089	0.756	812	1197	0.0	2.9	12.515	B
3 - A283	608	152	560	1055	0.576	603	349	0.0	1.3	7.868	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	973	243	623	782	1.244	778	764	10.6	59.3	178.374	F
2 - A259 West	983	246	98	1088	0.904	966	1302	2.9	7.2	26.285	D
3 - A283	726	182	667	965	0.753	720	398	1.3	2.9	14.380	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1191	298	731	714	1.668	714	859	59.3	178.6	612.277	F
2 - A259 West	1205	301	91	1093	1.102	1078	1354	7.2	38.9	89.666	F
3 - A283	890	222	744	899	0.990	846	425	2.9	13.7	48.271	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1191	298	747	704	1.692	704	871	178.6	300.4	1231.771	F
2 - A259 West	1205	301	90	1094	1.101	1090	1361	38.9	67.4	185.055	F
3 - A283	890	222	753	891	0.998	865	428	13.7	19.8	80.805	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	973	243	681	746	1.304	746	848	300.4	357.2	1519.822	F
2 - A259 West	983	246	95	1091	0.902	1075	1332	67.4	44.6	189.542	F
3 - A283	726	182	742	901	0.806	787	428	19.8	4.7	40.463	E

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	815	204	539	835	0.976	832	763	357.2	352.8	1535.645	F
2 - A259 West	824	206	105	1084	0.759	988	1266	44.6	3.6	65.883	F
3 - A283	608	152	682	952	0.639	620	411	4.7	1.8	11.204	B

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 82% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	929.99	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-41	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	844	100.000
2 - A259 West		ONE HOUR	✓	1487	100.000
3 - A283		ONE HOUR	✓	514	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	149
	2 - A259 West	819	1	667
	3 - A283	179	334	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	20
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.04	117.99	31.9	F	774	1162
2 - A259 West	1.61	1727.68	510.1	F	1365	2047
3 - A283	0.56	8.11	1.3	A	472	707

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	635	159	251	967	0.657	628	692	0.0	1.9	10.409	B
2 - A259 West	1119	280	112	1049	1.067	1012	767	0.0	27.0	59.606	F
3 - A283	387	97	559	1012	0.382	385	565	0.0	0.6	5.713	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	759	190	301	936	0.810	751	730	1.9	3.9	18.600	C
2 - A259 West	1337	334	134	1034	1.293	1032	918	27.0	103.1	236.761	F
3 - A283	462	116	570	1002	0.461	461	596	0.6	0.8	6.641	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	929	232	368	895	1.038	863	759	3.9	20.3	64.612	F
2 - A259 West	1637	409	155	1020	1.606	1019	1077	103.1	257.5	643.280	F
3 - A283	566	141	563	1008	0.561	564	611	0.8	1.3	8.076	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	929	232	370	895	1.039	883	758	20.3	31.9	117.986	F
2 - A259 West	1637	409	158	1017	1.610	1017	1095	257.5	412.6	1190.773	F
3 - A283	566	141	562	1009	0.561	566	613	1.3	1.3	8.114	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	759	190	303	935	0.811	865	724	31.9	5.2	67.213	F
2 - A259 West	1337	334	155	1019	1.311	1019	1014	412.6	491.9	1583.348	F
3 - A283	462	116	563	1008	0.458	464	611	1.3	0.9	6.628	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	635	159	253	966	0.658	648	712	5.2	2.0	11.772	B
2 - A259 West	1119	280	116	1047	1.070	1047	786	491.9	510.1	1727.678	F
3 - A283	387	97	578	996	0.389	388	585	0.9	0.6	5.929	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	620.56	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1078	100.000
2 - A259 West		ONE HOUR	✓	1092	100.000
3 - A283		ONE HOUR	✓	774	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	129
	2 - A259 West	737	18	337
	3 - A283	107	664	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.68	1459.71	344.3	F	989	1484
2 - A259 West	1.10	183.75	65.8	F	1002	1503
3 - A283	0.96	57.06	12.8	F	710	1065

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	812	203	511	852	0.953	773	627	0.0	9.8	35.945	E
2 - A259 West	822	206	95	1090	0.754	811	1189	0.0	2.9	12.398	B
3 - A283	583	146	560	1055	0.552	578	345	0.0	1.2	7.472	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	969	242	611	789	1.228	784	747	9.8	55.9	167.427	F
2 - A259 West	982	245	97	1089	0.901	965	1299	2.9	7.1	25.879	D
3 - A283	696	174	667	964	0.722	691	394	1.2	2.5	12.939	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1187	297	727	717	1.656	717	842	55.9	173.5	588.399	F
2 - A259 West	1202	301	89	1094	1.099	1078	1354	7.1	38.1	88.061	F
3 - A283	852	213	746	897	0.950	823	422	2.5	9.9	38.439	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1187	297	742	707	1.679	707	853	173.5	293.4	1130.898	F
2 - A259 West	1202	301	88	1095	1.098	1091	1361	38.1	65.8	181.016	F
3 - A283	852	213	755	889	0.958	840	425	9.9	12.8	57.058	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	969	242	649	766	1.266	766	826	293.4	344.3	1450.050	F
2 - A259 West	982	245	94	1091	0.900	1074	1320	65.8	42.7	183.752	F
3 - A283	696	174	743	899	0.774	732	426	12.8	3.7	25.110	D

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	812	203	526	843	0.963	840	742	344.3	337.1	1459.710	F
2 - A259 West	822	206	103	1085	0.757	979	1263	42.7	3.5	60.373	F
3 - A283	583	146	677	956	0.610	591	405	3.7	1.6	10.091	B

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 82% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	991.87	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-42	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	857	100.000
2 - A259 West		ONE HOUR	✓	1503	100.000
3 - A283		ONE HOUR	✓	513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	162
	2 - A259 West	819	1	683
	3 - A283	178	334	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	18
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.05	132.84	37.0	F	786	1180
2 - A259 West	1.64	1836.58	541.0	F	1379	2069
3 - A283	0.56	7.95	1.2	A	471	706

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	251	968	0.667	637	685	0.0	1.9	10.664	B
2 - A259 West	1132	283	122	1044	1.084	1010	767	0.0	30.3	65.190	F
3 - A283	386	97	552	1018	0.379	384	580	0.0	0.6	5.657	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	301	937	0.822	762	720	1.9	4.1	19.549	C
2 - A259 West	1351	338	146	1027	1.315	1026	917	30.3	111.5	258.479	F
3 - A283	461	115	561	1010	0.456	460	611	0.6	0.8	6.534	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	368	896	1.053	869	748	4.1	22.8	70.165	F
2 - A259 West	1655	414	166	1013	1.633	1013	1071	111.5	272.0	687.884	F
3 - A283	565	141	554	1016	0.556	563	626	0.8	1.2	7.915	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	369	896	1.054	887	748	22.8	37.0	132.842	F
2 - A259 West	1655	414	170	1011	1.637	1011	1087	272.0	433.0	1260.295	F
3 - A283	565	141	552	1017	0.555	565	628	1.2	1.2	7.951	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	303	936	0.823	894	712	37.0	6.1	86.336	F
2 - A259 West	1351	338	171	1010	1.338	1010	1026	433.0	518.3	1676.413	F
3 - A283	461	115	552	1018	0.453	463	629	1.2	0.8	6.506	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	253	967	0.668	661	702	6.1	2.1	12.374	B
2 - A259 West	1132	283	127	1041	1.087	1041	788	518.3	541.0	1836.583	F
3 - A283	386	97	569	1004	0.385	387	599	0.8	0.6	5.845	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	616.07	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1074	100.000
2 - A259 West		ONE HOUR	✓	1093	100.000
3 - A283		ONE HOUR	✓	776	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	125
	2 - A259 West	737	18	338
	3 - A283	106	667	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.68	1452.23	342.1	F	986	1478
2 - A259 West	1.10	182.52	65.6	F	1003	1504
3 - A283	0.96	58.44	13.2	F	712	1068

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	809	202	514	850	0.951	770	626	0.0	9.6	35.640	E
2 - A259 West	823	206	92	1092	0.753	811	1192	0.0	2.9	12.360	B
3 - A283	584	146	560	1055	0.554	579	343	0.0	1.2	7.493	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	966	241	614	787	1.226	783	746	9.6	55.3	166.094	F
2 - A259 West	983	246	94	1091	0.901	966	1303	2.9	7.1	25.760	D
3 - A283	698	174	667	964	0.724	693	392	1.2	2.5	13.021	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1182	296	729	715	1.654	715	841	55.3	172.2	585.111	F
2 - A259 West	1203	301	86	1096	1.098	1080	1358	7.1	38.0	87.730	F
3 - A283	854	214	746	897	0.953	824	420	2.5	10.1	39.039	E

17:30 - 17:45

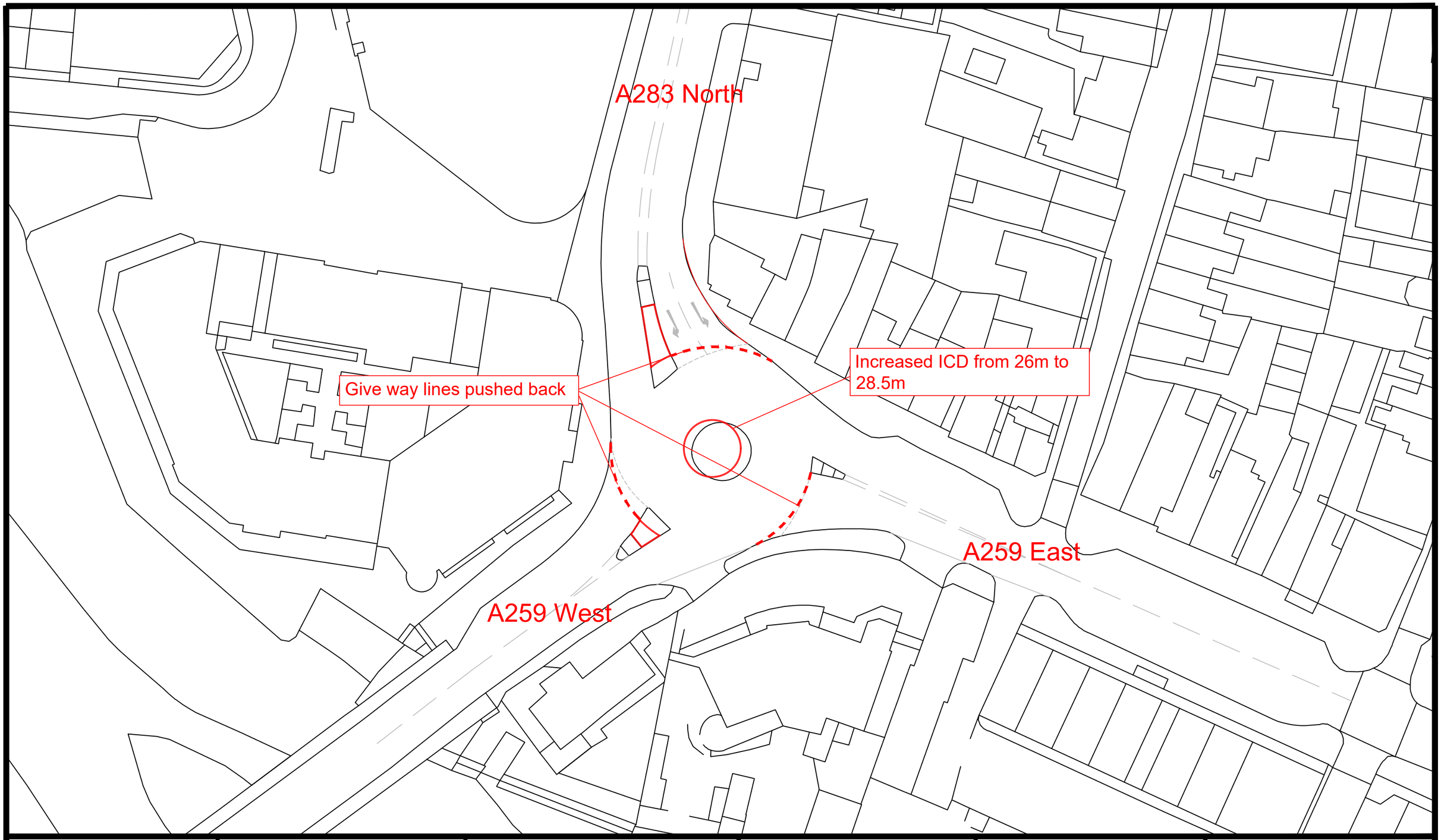
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1182	296	745	705	1.677	705	852	172.2	291.5	1126.665	F
2 - A259 West	1203	301	85	1096	1.098	1093	1365	38.0	65.6	180.265	F
3 - A283	854	214	755	889	0.961	842	423	10.1	13.2	58.441	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	966	241	653	763	1.265	763	826	291.5	342.1	1444.872	F
2 - A259 West	983	246	92	1092	0.900	1076	1324	65.6	42.3	182.520	F
3 - A283	698	174	743	899	0.776	735	424	13.2	3.8	25.791	D

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	809	202	528	841	0.961	839	740	342.1	334.6	1452.235	F
2 - A259 West	823	206	100	1087	0.757	978	1267	42.3	3.5	59.115	F
3 - A283	584	146	676	957	0.611	593	402	3.8	1.6	10.115	B



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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A283 / A259

Date	Drawn		
15/11/2021	MAW		
Checked	Date	Approved	Date
Scale: NTS @ A3	Drg No.: APPENDIX 7.3		Rev.

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 9 - C - A283 - A259 - Improved Jct - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\9- A283 + A259
Report generation date: 11/11/2021 16:45:46

»2033 Base minus permitted, AM
»2033 Base minus permitted, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base minus permitted														
1 - A259 East	2.8	11.25	0.74	B	28.74	D	-3 % [2 - A259 West]	66.0	183.58	1.11	F	72.31	F	-13 % [1 - A259 East]
2 - A259 West	20.3	46.85	0.98	E				2.2	6.77	0.69	A			
3 - A283	0.9	5.63	0.46	A				1.7	7.56	0.63	A			
Scenario 1 Total														
1 - A259 East	3.2	12.43	0.77	B	40.98	E	-6 % [2 - A259 West]	88.4	241.74	1.15	F	93.55	F	-15 % [1 - A259 East]
2 - A259 West	33.1	70.24	1.01	F				2.3	7.00	0.70	A			
3 - A283	0.9	5.82	0.48	A				2.2	8.89	0.69	A			
Scenario 2 Total														
1 - A259 East	3.2	12.43	0.77	B	40.73	E	-6 % [2 - A259 West]	84.7	232.47	1.15	F	89.74	F	-15 % [1 - A259 East]
2 - A259 West	32.8	69.71	1.01	F				2.3	6.94	0.70	A			
3 - A283	0.9	5.78	0.48	A				2.2	8.96	0.69	A			
Scenario 3 Total														
1 - A259 East	3.0	11.85	0.75	B	34.23	D	-4 % [2 - A259 West]	77.9	213.99	1.13	F	83.51	F	-14 % [1 - A259 East]
2 - A259 West	25.8	57.29	0.99	F				2.3	6.89	0.70	A			
3 - A283	0.9	5.73	0.47	A				1.9	8.21	0.66	A			
Scenario 4 Total														
1 - A259 East	3.2	12.38	0.77	B	40.84	E	-6 % [2 - A259 West]	76.8	211.71	1.13	F	82.42	F	-14 % [1 - A259 East]
2 - A259 West	32.8	69.71	1.01	F				2.3	6.87	0.70	A			
3 - A283	0.9	5.67	0.47	A				1.9	8.25	0.66	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base minus permitted, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	28.74	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-3	2 - A259 West

Arms

Arms

Arm	Name	Description
1	A259 East	
2	A259 West	
3	A283	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A259 East	3.60	8.00	5.5	39.0	28.5	18.0	
2 - A259 West	3.80	6.60	26.0	19.6	28.5	20.5	
3 - A283	4.80	8.30	6.3	20.7	28.5	19.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A259 East	0.651	1561
2 - A259 West	0.698	1839
3 - A283	0.713	1906

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	829	100.000
2 - A259 West		ONE HOUR	✓	1472	100.000
3 - A283		ONE HOUR	✓	499	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	134
	2 - A259 West	819	1	652
	3 - A283	166	332	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	22
	2 - A259 West	5	0	1
	3 - A283	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.74	11.25	2.8	B	761	1141
2 - A259 West	0.98	46.85	20.3	E	1351	2026
3 - A283	0.46	5.63	0.9	A	458	687

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	624	156	250	1305	0.478	620	738	0.0	0.9	5.234	A
2 - A259 West	1108	277	102	1698	0.653	1101	769	0.0	1.8	5.956	A
3 - A283	376	94	614	1391	0.270	374	589	0.0	0.4	3.537	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	745	186	300	1274	0.585	743	882	0.9	1.4	6.758	A
2 - A259 West	1323	331	122	1682	0.787	1317	921	1.8	3.5	9.684	A
3 - A283	449	112	734	1304	0.344	448	704	0.4	0.5	4.202	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	913	228	367	1232	0.741	907	1058	1.4	2.7	10.894	B
2 - A259 West	1621	405	149	1659	0.977	1572	1125	3.5	15.7	30.900	D
3 - A283	549	137	877	1202	0.457	548	844	0.5	0.8	5.500	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	913	228	368	1232	0.741	912	1075	2.7	2.8	11.246	B
2 - A259 West	1621	405	150	1659	0.977	1603	1130	15.7	20.3	46.846	E
3 - A283	549	137	894	1189	0.462	549	858	0.8	0.9	5.626	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	745	186	301	1273	0.585	751	923	2.8	1.4	6.959	A
2 - A259 West	1323	331	123	1681	0.787	1389	929	20.3	3.9	14.847	B
3 - A283	449	112	775	1275	0.352	450	737	0.9	0.5	4.369	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	624	156	252	1304	0.479	626	747	1.4	0.9	5.329	A
2 - A259 West	1108	277	103	1697	0.653	1116	775	3.9	1.9	6.276	A
3 - A283	376	94	623	1385	0.271	376	596	0.5	0.4	3.572	A

2033 Base minus permitted, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	72.31	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1063	100.000
2 - A259 West		ONE HOUR	✓	1091	100.000
3 - A283		ONE HOUR	✓	739	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	114
	2 - A259 West	737	18	336
	3 - A283	85	651	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.11	183.58	66.0	F	975	1463
2 - A259 West	0.69	6.77	2.2	A	1001	1502
3 - A283	0.63	7.56	1.7	A	678	1017

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	800	200	504	1208	0.663	793	616	0.0	1.9	8.524	A
2 - A259 West	821	205	87	1753	0.469	818	1209	0.0	0.9	3.836	A
3 - A283	556	139	566	1481	0.376	554	339	0.0	0.6	3.874	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	956	239	603	1144	0.835	945	738	1.9	4.5	17.204	C
2 - A259 West	981	245	104	1741	0.563	979	1444	0.9	1.3	4.716	A
3 - A283	664	166	678	1400	0.474	663	406	0.6	0.9	4.875	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1170	293	737	1059	1.105	1041	902	4.5	36.9	84.376	F
2 - A259 West	1201	300	115	1733	0.693	1197	1663	1.3	2.2	6.671	A
3 - A283	814	203	829	1291	0.630	811	484	0.9	1.7	7.438	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1170	293	740	1057	1.107	1054	905	36.9	66.0	183.578	F
2 - A259 West	1201	300	116	1732	0.693	1201	1678	2.2	2.2	6.771	A
3 - A283	814	203	831	1290	0.631	814	486	1.7	1.7	7.558	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	956	239	607	1142	0.837	1125	742	66.0	23.7	147.246	F
2 - A259 West	981	245	123	1727	0.568	984	1608	2.2	1.3	4.870	A
3 - A283	664	166	681	1398	0.475	667	427	1.7	0.9	4.951	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	800	200	507	1206	0.664	887	620	23.7	2.0	14.582	B
2 - A259 West	821	205	97	1746	0.470	823	1297	1.3	0.9	3.910	A
3 - A283	556	139	570	1478	0.376	558	351	0.9	0.6	3.915	A

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	40.98	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-6	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	857	100.000
2 - A259 West		ONE HOUR	✓	1504	100.000
3 - A283		ONE HOUR	✓	529	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	162
	2 - A259 West	819	1	684
	3 - A283	192	336	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	18
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.77	12.43	3.2	B	786	1180
2 - A259 West	1.01	70.24	33.1	F	1380	2070
3 - A283	0.48	5.82	0.9	A	485	728

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	253	1306	0.494	641	757	0.0	1.0	5.387	A
2 - A259 West	1132	283	123	1685	0.672	1124	772	0.0	2.0	6.333	A
3 - A283	398	100	614	1394	0.286	397	633	0.0	0.4	3.603	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	303	1275	0.604	768	905	1.0	1.5	7.080	A
2 - A259 West	1352	338	147	1666	0.812	1344	925	2.0	4.1	10.909	B
3 - A283	476	119	734	1307	0.364	475	757	0.4	0.6	4.320	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	371	1232	0.766	937	1074	1.5	3.1	11.939	B
2 - A259 West	1656	414	179	1640	1.010	1582	1129	4.1	22.5	40.119	E
3 - A283	582	146	864	1213	0.480	581	898	0.6	0.9	5.679	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	372	1232	0.766	943	1091	3.1	3.2	12.431	B
2 - A259 West	1656	414	181	1639	1.010	1613	1135	22.5	33.1	70.236	F
3 - A283	582	146	881	1201	0.485	582	913	0.9	0.9	5.817	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	305	1274	0.605	777	972	3.2	1.6	7.338	A
2 - A259 West	1352	338	149	1664	0.812	1466	933	33.1	4.7	26.307	D
3 - A283	476	119	800	1260	0.378	477	814	0.9	0.6	4.608	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	255	1305	0.494	647	768	1.6	1.0	5.495	A
2 - A259 West	1132	283	124	1684	0.672	1143	779	4.7	2.1	6.775	A
3 - A283	398	100	624	1387	0.287	399	643	0.6	0.4	3.650	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	93.55	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1089	100.000
2 - A259 West		ONE HOUR	✓	1094	100.000
3 - A283		ONE HOUR	✓	805	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	140
	2 - A259 West	737	18	339
	3 - A283	124	678	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	2
	2 - A259 West	2	0	0
	3 - A283	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.15	241.74	88.4	F	999	1499
2 - A259 West	0.70	7.00	2.3	A	1004	1506
3 - A283	0.69	8.89	2.2	A	739	1108

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	820	205	524	1195	0.686	811	645	0.0	2.1	9.182	A
2 - A259 West	824	206	107	1740	0.473	820	1229	0.0	0.9	3.900	A
3 - A283	606	152	566	1482	0.409	603	361	0.0	0.7	4.085	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	979	245	627	1130	0.867	965	773	2.1	5.6	20.359	C
2 - A259 West	983	246	127	1726	0.570	982	1466	0.9	1.3	4.830	A
3 - A283	724	181	678	1401	0.516	722	431	0.7	1.1	5.288	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1199	300	766	1041	1.152	1029	945	5.6	48.0	105.752	F
2 - A259 West	1205	301	136	1719	0.701	1201	1660	1.3	2.3	6.888	A
3 - A283	886	222	829	1293	0.686	882	508	1.1	2.1	8.681	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1199	300	769	1039	1.154	1037	948	48.0	88.4	241.736	F
2 - A259 West	1205	301	137	1719	0.701	1204	1670	2.3	2.3	6.997	A
3 - A283	886	222	831	1291	0.687	886	510	2.1	2.2	8.890	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	979	245	632	1126	0.869	1114	777	88.4	54.7	231.842	F
2 - A259 West	983	246	146	1712	0.574	987	1600	2.3	1.4	4.992	A
3 - A283	724	181	681	1399	0.517	728	452	2.2	1.1	5.400	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	820	205	528	1193	0.687	1029	650	54.7	2.4	52.891	F
2 - A259 West	824	206	135	1720	0.479	825	1422	1.4	0.9	4.033	A
3 - A283	606	152	570	1479	0.410	608	390	1.1	0.7	4.136	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	40.73	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-6	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	857	100.000
2 - A259 West		ONE HOUR	✓	1503	100.000
3 - A283		ONE HOUR	✓	525	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	162
	2 - A259 West	819	1	683
	3 - A283	188	336	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	18
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.77	12.43	3.2	B	786	1180
2 - A259 West	1.01	69.71	32.8	F	1379	2069
3 - A283	0.48	5.78	0.9	A	482	723

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	253	1306	0.494	641	754	0.0	1.0	5.387	A
2 - A259 West	1132	283	123	1685	0.672	1124	772	0.0	2.0	6.324	A
3 - A283	395	99	614	1394	0.284	394	633	0.0	0.4	3.589	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	303	1275	0.604	768	901	1.0	1.5	7.080	A
2 - A259 West	1351	338	147	1666	0.811	1343	925	2.0	4.0	10.884	B
3 - A283	472	118	734	1307	0.361	471	756	0.4	0.6	4.303	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	371	1232	0.766	937	1069	1.5	3.1	11.939	B
2 - A259 West	1655	414	179	1640	1.009	1582	1129	4.0	22.3	39.921	E
3 - A283	578	145	864	1213	0.477	577	897	0.6	0.9	5.647	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	372	1232	0.766	943	1087	3.1	3.2	12.431	B
2 - A259 West	1655	414	181	1639	1.010	1613	1135	22.3	32.8	69.706	F
3 - A283	578	145	881	1201	0.481	578	912	0.9	0.9	5.781	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	305	1274	0.605	777	968	3.2	1.6	7.338	A
2 - A259 West	1351	338	149	1664	0.812	1463	933	32.8	4.7	25.926	D
3 - A283	472	118	799	1260	0.375	473	813	0.9	0.6	4.586	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	255	1305	0.494	647	765	1.6	1.0	5.497	A
2 - A259 West	1132	283	124	1684	0.672	1142	779	4.7	2.1	6.762	A
3 - A283	395	99	624	1386	0.285	396	642	0.6	0.4	3.637	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	89.74	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1082	100.000
2 - A259 West		ONE HOUR	✓	1094	100.000
3 - A283		ONE HOUR	✓	808	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	133
	2 - A259 West	737	18	339
	3 - A283	127	678	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.15	232.47	84.7	F	993	1489
2 - A259 West	0.70	6.94	2.3	A	1004	1506
3 - A283	0.69	8.96	2.2	A	741	1112

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	815	204	524	1195	0.681	806	648	0.0	2.1	9.072	A
2 - A259 West	824	206	101	1743	0.472	820	1229	0.0	0.9	3.884	A
3 - A283	608	152	566	1482	0.410	606	355	0.0	0.7	4.108	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	973	243	627	1129	0.861	960	775	2.1	5.4	19.793	C
2 - A259 West	983	246	121	1730	0.569	982	1466	0.9	1.3	4.802	A
3 - A283	726	182	678	1401	0.518	725	425	0.7	1.1	5.308	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1191	298	766	1041	1.144	1028	948	5.4	46.1	102.278	F
2 - A259 West	1205	301	130	1723	0.699	1201	1665	1.3	2.3	6.837	A
3 - A283	890	222	829	1293	0.688	885	502	1.1	2.1	8.747	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1191	298	769	1039	1.147	1037	951	46.1	84.7	232.468	F
2 - A259 West	1205	301	131	1723	0.699	1204	1676	2.3	2.3	6.942	A
3 - A283	890	222	831	1291	0.689	889	504	2.1	2.2	8.963	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	973	243	632	1126	0.864	1113	780	84.7	49.5	218.059	F
2 - A259 West	983	246	140	1716	0.573	987	1606	2.3	1.4	4.963	A
3 - A283	726	182	681	1399	0.519	731	445	2.2	1.1	5.422	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	815	204	528	1193	0.683	1004	652	49.5	2.3	42.076	E
2 - A259 West	824	206	126	1726	0.477	825	1406	1.4	0.9	4.003	A
3 - A283	608	152	570	1479	0.411	610	381	1.1	0.7	4.147	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	34.23	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	844	100.000
2 - A259 West		ONE HOUR	✓	1487	100.000
3 - A283		ONE HOUR	✓	514	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	149
	2 - A259 West	819	1	667
	3 - A283	179	334	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	20
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.75	11.85	3.0	B	774	1162
2 - A259 West	0.99	57.29	25.8	F	1365	2047
3 - A283	0.47	5.73	0.9	A	472	707

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	635	159	252	1305	0.487	632	747	0.0	0.9	5.314	A
2 - A259 West	1119	280	113	1691	0.662	1112	771	0.0	1.9	6.137	A
3 - A283	387	97	614	1392	0.278	385	611	0.0	0.4	3.571	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	759	190	302	1274	0.595	757	894	0.9	1.4	6.924	A
2 - A259 West	1337	334	135	1673	0.799	1329	923	1.9	3.8	10.256	B
3 - A283	462	116	734	1306	0.354	461	731	0.4	0.5	4.261	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	929	232	369	1233	0.754	923	1066	1.4	2.9	11.428	B
2 - A259 West	1637	409	165	1649	0.993	1577	1127	3.8	18.8	35.161	E
3 - A283	566	141	871	1207	0.469	565	872	0.5	0.9	5.592	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	929	232	370	1232	0.754	929	1084	2.9	3.0	11.847	B
2 - A259 West	1637	409	166	1648	0.993	1609	1133	18.8	25.8	57.295	F
3 - A283	566	141	888	1194	0.474	566	887	0.9	0.9	5.727	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	759	190	303	1274	0.596	765	946	3.0	1.5	7.152	A
2 - A259 West	1337	334	137	1672	0.800	1423	931	25.8	4.3	18.852	C
3 - A283	462	116	785	1269	0.364	463	774	0.9	0.6	4.478	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	635	159	253	1304	0.487	638	757	1.5	1.0	5.417	A
2 - A259 West	1119	280	114	1690	0.662	1129	777	4.3	2.0	6.511	A
3 - A283	387	97	623	1386	0.279	388	620	0.6	0.4	3.609	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	83.51	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1078	100.000
2 - A259 West		ONE HOUR	✓	1092	100.000
3 - A283		ONE HOUR	✓	774	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	129
	2 - A259 West	737	18	337
	3 - A283	107	664	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.13	213.99	77.9	F	989	1484
2 - A259 West	0.70	6.89	2.3	A	1002	1503
3 - A283	0.66	8.21	1.9	A	710	1065

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	812	203	513	1202	0.675	804	633	0.0	2.0	8.867	A
2 - A259 West	822	206	98	1745	0.471	819	1219	0.0	0.9	3.870	A
3 - A283	583	146	566	1481	0.393	580	351	0.0	0.6	3.983	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	969	242	615	1137	0.852	957	757	2.0	5.1	18.789	C
2 - A259 West	982	245	117	1732	0.567	980	1454	0.9	1.3	4.776	A
3 - A283	696	174	678	1401	0.497	694	420	0.6	1.0	5.086	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1187	297	751	1050	1.130	1036	926	5.1	42.8	95.450	F
2 - A259 West	1202	301	127	1725	0.697	1198	1660	1.3	2.2	6.787	A
3 - A283	852	213	829	1292	0.660	849	497	1.0	1.9	8.051	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1187	297	754	1048	1.132	1046	929	42.8	77.9	213.987	F
2 - A259 West	1202	301	129	1724	0.697	1202	1672	2.2	2.3	6.893	A
3 - A283	852	213	831	1290	0.661	852	500	1.9	1.9	8.210	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	969	242	619	1135	0.854	1120	762	77.9	40.1	191.578	F
2 - A259 West	982	245	137	1718	0.571	985	1602	2.3	1.3	4.938	A
3 - A283	696	174	681	1398	0.498	699	441	1.9	1.0	5.177	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	812	203	517	1200	0.677	963	637	40.1	2.2	27.314	D
2 - A259 West	822	206	118	1732	0.475	824	1363	1.3	0.9	3.972	A
3 - A283	583	146	570	1479	0.394	584	372	1.0	0.7	4.031	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	40.84	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-6	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	857	100.000
2 - A259 West		ONE HOUR	✓	1503	100.000
3 - A283		ONE HOUR	✓	513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	162
	2 - A259 West	819	1	683
	3 - A283	178	334	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	18
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.77	12.38	3.2	B	786	1180
2 - A259 West	1.01	69.71	32.8	F	1379	2069
3 - A283	0.47	5.67	0.9	A	471	706

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	252	1307	0.494	641	746	0.0	1.0	5.380	A
2 - A259 West	1132	283	123	1685	0.672	1124	771	0.0	2.0	6.324	A
3 - A283	386	97	614	1392	0.277	385	633	0.0	0.4	3.568	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	302	1276	0.604	768	892	1.0	1.5	7.065	A
2 - A259 West	1351	338	147	1666	0.811	1343	923	2.0	4.0	10.884	B
3 - A283	461	115	734	1306	0.353	461	756	0.4	0.5	4.256	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	369	1234	0.765	937	1059	1.5	3.1	11.889	B
2 - A259 West	1655	414	179	1640	1.009	1582	1127	4.0	22.3	39.922	E
3 - A283	565	141	864	1212	0.466	564	897	0.5	0.9	5.541	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	370	1233	0.765	943	1076	3.1	3.2	12.376	B
2 - A259 West	1655	414	181	1639	1.010	1613	1133	22.3	32.8	69.706	F
3 - A283	565	141	881	1200	0.471	565	912	0.9	0.9	5.670	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	303	1275	0.604	777	959	3.2	1.6	7.320	A
2 - A259 West	1351	338	149	1664	0.812	1463	931	32.8	4.7	25.928	D
3 - A283	461	115	799	1259	0.366	462	813	0.9	0.6	4.528	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	253	1306	0.494	647	757	1.6	1.0	5.487	A
2 - A259 West	1132	283	124	1684	0.672	1142	777	4.7	2.1	6.762	A
3 - A283	386	97	624	1385	0.279	387	642	0.6	0.4	3.611	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	82.42	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1074	100.000
2 - A259 West		ONE HOUR	✓	1093	100.000
3 - A283		ONE HOUR	✓	776	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	125
	2 - A259 West	737	18	338
	3 - A283	106	667	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.13	211.71	76.8	F	986	1478
2 - A259 West	0.70	6.87	2.3	A	1003	1504
3 - A283	0.66	8.25	1.9	A	712	1068

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	809	202	516	1200	0.674	801	632	0.0	2.0	8.837	A
2 - A259 West	823	206	95	1747	0.471	819	1221	0.0	0.9	3.864	A
3 - A283	584	146	566	1481	0.394	582	349	0.0	0.6	3.989	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	966	241	617	1136	0.850	954	757	2.0	5.0	18.646	C
2 - A259 West	983	246	114	1735	0.566	981	1457	0.9	1.3	4.766	A
3 - A283	698	174	678	1401	0.498	696	417	0.6	1.0	5.099	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1182	296	754	1048	1.128	1034	925	5.0	42.2	94.621	F
2 - A259 West	1203	301	124	1727	0.697	1200	1664	1.3	2.2	6.771	A
3 - A283	854	214	829	1292	0.661	851	495	1.0	1.9	8.089	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1182	296	757	1046	1.130	1044	928	42.2	76.8	211.708	F
2 - A259 West	1203	301	125	1727	0.697	1203	1677	2.2	2.3	6.874	A
3 - A283	854	214	831	1290	0.662	854	497	1.9	1.9	8.251	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	966	241	622	1133	0.852	1118	761	76.8	38.7	187.904	F
2 - A259 West	983	246	133	1721	0.571	986	1607	2.3	1.3	4.926	A
3 - A283	698	174	681	1398	0.499	701	438	1.9	1.0	5.193	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	809	202	519	1198	0.675	954	636	38.7	2.2	25.613	D
2 - A259 West	823	206	113	1735	0.474	825	1360	1.3	0.9	3.964	A
3 - A283	584	146	570	1479	0.395	586	368	1.0	0.7	4.036	A

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham A283/A259 Roundabout**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A283/A259 Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-09A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	1000.00	1,000.00
1.02	REMOVE CONCRETE KERBS	45.00	m	15.00	675.00
1.03	REMOVE EDGING KERB	0.00	m	3.00	0.00
1.04	REMOVE LIGHTING COLUMNS	0.00	ITEM	750.00	0.00
1.05	REMOVE PLANTERS	3.00	No	100.00	300.00
1.06	REMOVE TRAFFIC SIGNS	12.00	No	350.00	4,200.00
1.07	REMOVE BOLLARDS	2.00	No	350.00	700.00
					6,875.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	37.00	Cum	22.00	814.00
2.02	EXCAVATE HARD AND DISPOSE	20.00	Cum	55.00	1,100.00
2.03	DISPOSE U/S	57.00	Cum	50.00	2,850.00
2.04	FORMATION AND SUB-FORMATION	100.00	Sqm	1.20	120.00
2.05	PLANE CARRIAGEWAY (40mm)	610.00	Sqm	3.50	2,135.00
2.06	PLANE FOOTWAY (20mm)	0.00	Sqm	2.50	0.00
2.07	IMPORT CAPPING AND COMPACT	22.00	Cum	18.00	396.00
					7,415.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	20.00	Cum	25.00	500.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	76.00	Sqm	22.00	1,672.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	76.00	Sqm	24.00	1,824.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	686.00	Sqm	18.00	12,348.00
3.05	CONCRETE KERBING	50.00	m	20.00	1,000.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	0.00	m	12.00	0.00
3.08	SUB BASE - FOOTWAY(150mm)	0.00	Cum	18.00	0.00
3.09	FOOTWAY SURFACE COURSE (20mm)	0.00	Sqm	8.00	0.00
3.10	FOOTWAY BINDER COURSE (50mm)	0.00	Sqm	11.00	0.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	0.00	Sqm	30.00	0.00
					17,344.00

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	0.00	No	600.00	0.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00

APPENDIX 7.5
BUDGET COST ESTIMATE FOR OFF-SITE HIGHWAY WORKS

4.03	GULLY CONNECTIONS	0.00	No	500.00	0.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					0.00

5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	2500.00	2500.00
5.02	BOLLARDS	2.00	No	600.00	1200.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	6.00	No	750.00	4500.00
5.04	ADS and POSTs	2.00	No	1250.00	2500.00
					10,700.00

7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	4000.00	4,000.00
7.02	STREET LIGHTING COLUMN	0.00	No.	1800.00	0.00
7.03	LIGHTING DUCTING	0.00	m	20.00	0.00
7.04	TOPSOIL & SEED	0.00	Sqm	12.50	0.00
7.05	VEHICLE RESTRAINT BARRIER	0.00	ITEM	25000.00	0.00
7.06	ELECTRICAL CONNECTION	0.00	No	1500.00	0.00
					4,000.00

	SUMMARY	
	Preliminaries 15%	£6,350.10
1.0	Site Clearance	£6,875.00
2.0	Earthworks	£7,415.00
3.0	Pavement	£17,344.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£10,700.00
6.0	Other	£4,000.00
		£52,684

CONTINGENCY 10%	£5,268
CIVILS TOTAL	£57,953

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

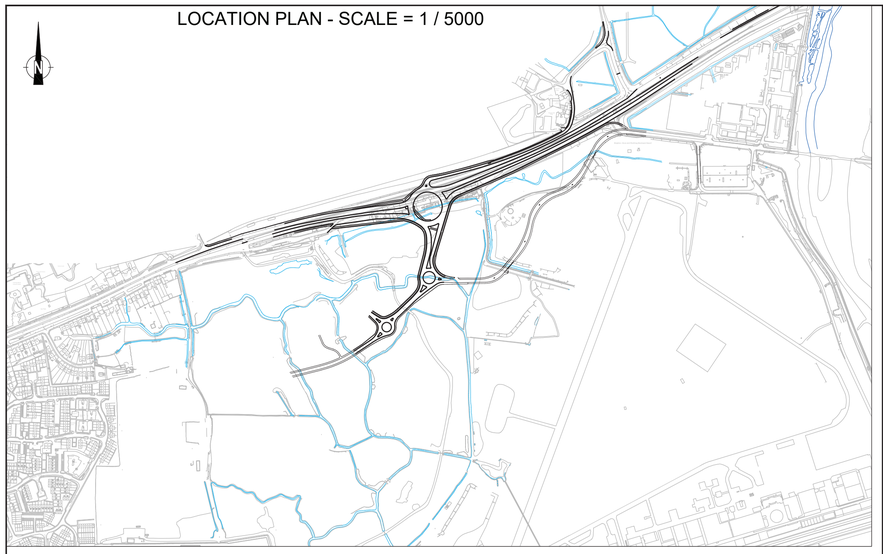
THE ESTIMATE INCLUDES THE RESURFACING OF THE WHOLE GYRATORY

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

8.0 Junction 10 – A27 / New Monks Farm Committed Signal Roundabout

8.1 Committed Junction Arrangement
8.2 LinSig Output: 2033 Baseline Scenario + Proposed Development Scenarios

LOCATION PLAN - SCALE = 1 / 5000



APPROXIMATE LOCATION FOR NORTH GATEWAY FEATURE

PROPOSED SUSSEX PAD LINK ROAD ALIGNED ADJACENT LANCING COLLEGE (FORMERLY SUSSEX PAD HOTEL)

COOMBES ROAD JUNCTION MODIFIED

BOUNDARY HEDGE TO BE REMOVED FOR NEW LANCING COLLEGE LINK ROAD

ACCESS TO CAR PARK RECONFIGURED TO NEW LINK ROAD TO PROVIDE JUNCTION VISIBILITY

BUILD-OUT REFUGE FOR SOUTHBOUND PRIORITY

CYCLISTS TO JOIN CARRIAGEWAY EAST OF PRIORITY BUILD-OUT, FOOTWAY REDUCED TO 2m WIDTH

APPROXIMATE LOCATION FOR SOUTH GATEWAY FEATURE

PROPOSED NORTH ARM OFF A27 ROUNDABOUT

3m SHARED FOOT/CYCLEWAY PLUS 500mm BUFFER STRIP ADJACENT CARRIAGEWAY

A27 SHOREHAM BYPASS

BUILD-OUT REFUGE FOR WESTBOUND PRIORITY

PROPOSED FOOTPATH/BRIDLEWAY ALONGSIDE A27 NORTHERN BOUNDARY TO BE DELIVERED AS PER PLANNING REFERENCE SDNP/18/00434/FUL

SUSSEX PAD MINOR ROAD JUNCTIONS CLOSED TO MOTOR VEHICLES

PROPOSED LAYOUT TO TIE-IN WITH CEP'S DESIGN

CEP'S PROPOSED ACCESS TO SHOREHAM AIRPORT DEVELOPMENT

ACCESS TO NEW MONKS FARM DEVELOPMENT

CUSTOMER AND SERVICE ACCESS TO IKEA STORE

PROPOSED LAYOUT TO TIE-IN WITH CEP'S DESIGN

NOTE: THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN VECTOS (NORTH) LTD.
IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR PRIOR WRITTEN CONSENT.

REV	DETAILS	DRAWN	CHECKED	DATE
A	Changes to 4th arm alignment thru Lancing College Nursery	DLB	PW	17.06.20
B	The Drive/Coombes Rd junction re-prioritised; NMU link added to A27	DLB	PW	30.06.20
C	Proposed footpath between The Drive and Coombes Rd removed	DLB	PW	7.07.20
D	Traffic calming features, eg. gateways, colour marks added to 4th arm	DLB	PW	5.08.20
E	Alignment adjusted to topo survey; speed cushion added outside LCN	DLB	PW	8.09.20
F	Build-outs amended for staggered priority to 4th arm	DLB	PW	12.10.20
G	Anti-dazzle screen added between 4th arm and A27 EB reserve	DLB	PW	18.12.20
H	Amendments to 4th arm proposed traffic calming measures	DLB	PW	6.04.21
J	'keep clear' markings added to circ adjacent 4th arm entry	DLB	PW	26.05.21

REV	DETAILS	DRAWN	CHECKED	DATE
		-	-	-

Notes:
1.
2.

KEY

- HIGHWAY BOUNDARY
- VEHICLE RESTRAINT SYSTEM
- ANTI-DAZZLE SCREEN

APPENDIX 8.1
COMMITTED JUNCTION ARRANGEMENT

DRAFT

PROJECT: New Monks Farm, Lancing

CLIENT: New Monks Farm Development

DRAWING TITLE: Proposed A27 Old Shoreham Road Improvements Development Access & Sussex Pad via Lancing College

vectos highway infrastructure specialists
Oxford Place, 61 Oxford St, Manchester, M1 6EQ
t: 0161 228 1008 e: manchester@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALE:
DB	PW	Mar 2020	1:1000 at A0

DRAWING NUMBER: VN201557/PL-03

REVISION: J

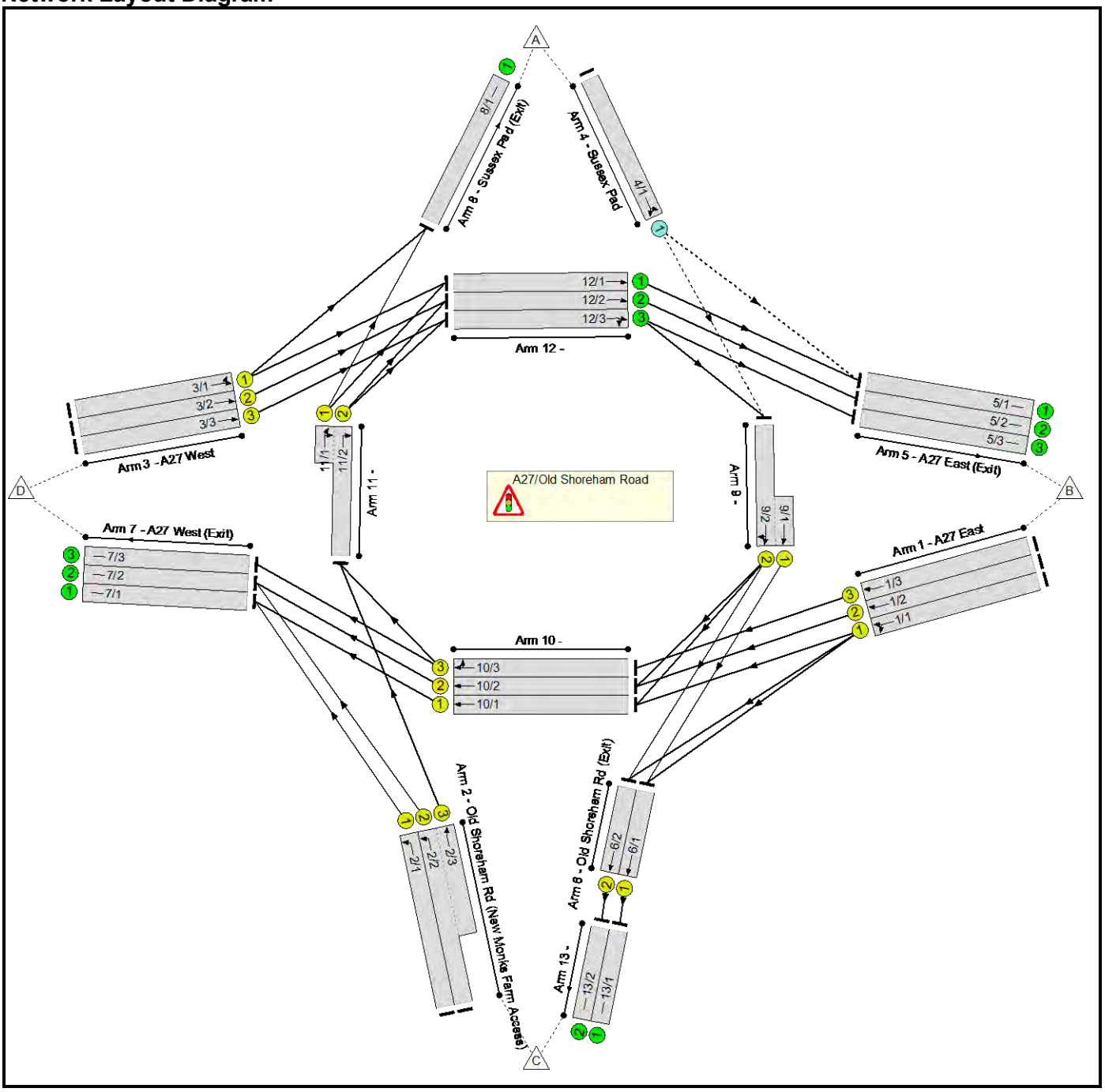
Full Input Data And Results

User and Project Details

Project:	**5201 Shoreham Cement Works**
Title:	
Location:	
Client:	SDNPA
Site Ref(s):	A27/Old Shoreham Rd
Additional detail:	
File name:	A27_Old Shoreham Rd Roundabout.lsg3x
Author:	Alex Painting
Company:	ADL Traffic and Highways Engineering Ltd
Address:	

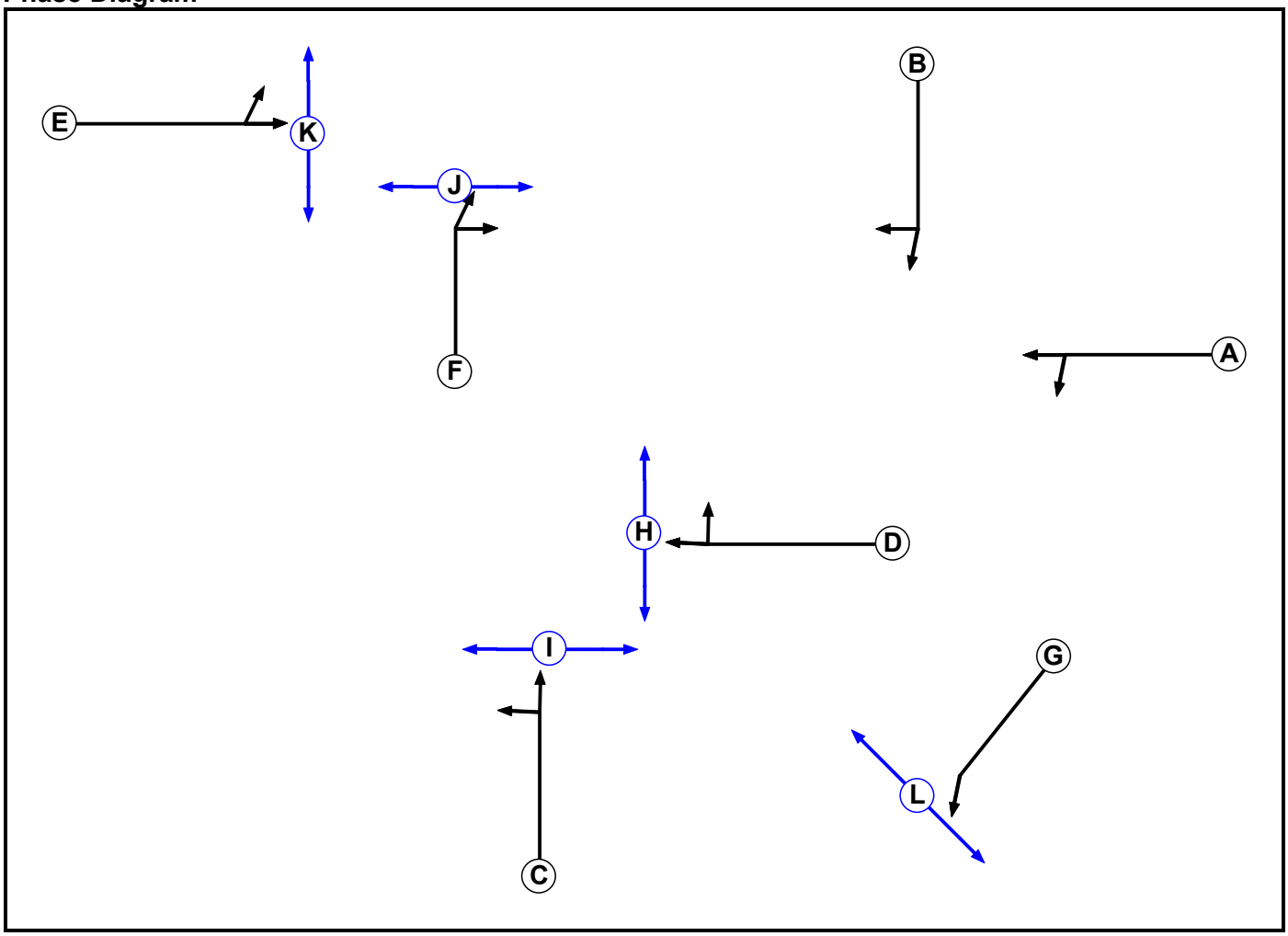
Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Pedestrian	2		8	8
I	Pedestrian	2		8	8
J	Pedestrian	3		8	8
K	Pedestrian	3		8	8
L	Pedestrian	4		7	7

Full Input Data And Results

Phase Intergreens Matrix

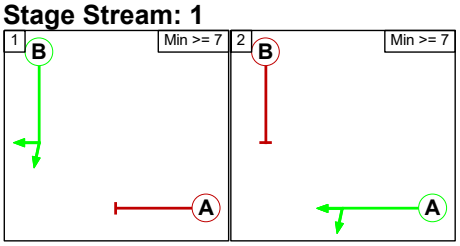
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L
A		6	-	-	-	-	-	-	-	-	-	-
B	6		-	-	-	-	-	-	-	-	-	-
C	-	-		6	-	-	-	-	4	-	-	-
D	-	-	6		-	-	-	8	-	-	-	-
E	-	-	-	-		6	-	-	-	-	4	-
F	-	-	-	-	6		-	-	-	8	-	-
G	-	-	-	-	-	-		-	-	-	-	4
H	-	-	-	8	-	-	-		-	-	-	-
I	-	-	8	-	-	-	-	-		-	-	-
J	-	-	-	-	-	8	-	-	-		-	-
K	-	-	-	-	8	-	-	-	-	-		-
L	-	-	-	-	-	-	7	-	-	-	-	

Phases in Stage

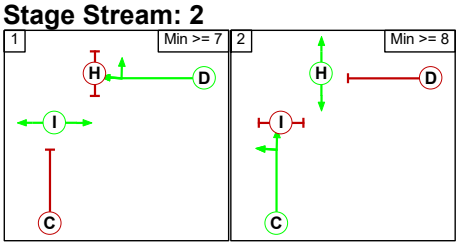
Stream	Stage No.	Phases in Stage
1	1	B
1	2	A
2	1	D I
2	2	C H
3	1	F K
3	2	E J
4	1	G
4	2	L

Stage Diagram

Stage Stream: 1

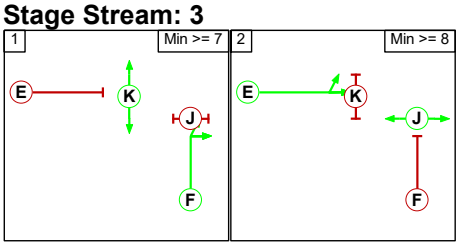


Stage Stream: 2

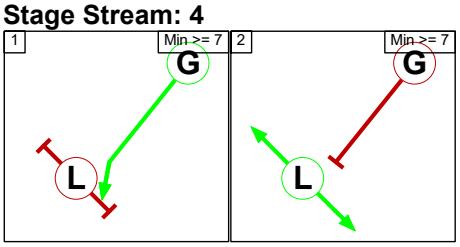


Full Input Data And Results

Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		8
	2	8	

Full Input Data And Results

Stage Stream: 3

	To Stage		
		1	2
From Stage	1		8
	2	8	

Stage Stream: 4

	To Stage		
		1	2
From Stage	1		4
	2	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A27/Old Shoreham Road											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
4/1 (Sussex Pad)	5/1 (Left)	1000	0	12/1	0.33	All	-	-	-	-	-
				12/2	0.33	All					
				12/3	0.33	All					
	9/2 (Ahead)	1000	0	12/1	0.33	All					
				12/2	0.33	All					
				12/3	0.33	All					

Full Input Data And Results

Lane Input Data

Junction: A27/Old Shoreham Road												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (A27 East)	U	A	2	3	60.0	User	1900	-	-	-	-	-
1/2 (A27 East)	U	A	2	3	60.0	User	1900	-	-	-	-	-
1/3 (A27 East)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (Old Shoreham Rd (New Monks Farm Access))	U	C	2	3	60.0	User	1900	-	-	-	-	-
2/2 (Old Shoreham Rd (New Monks Farm Access))	U	C	2	3	60.0	User	1900	-	-	-	-	-
2/3 (Old Shoreham Rd (New Monks Farm Access))	U	C	2	3	9.0	User	1900	-	-	-	-	-
3/1 (A27 West)	U	E	2	3	60.0	User	1900	-	-	-	-	-
3/2 (A27 West)	U	E	2	3	60.0	User	1900	-	-	-	-	-
3/3 (A27 West)	U	E	2	3	60.0	User	1900	-	-	-	-	-
4/1 (Sussex Pad)	O		2	3	60.0	User	1900	-	-	-	-	-
5/1 (A27 East (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (A27 East (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/3 (A27 East (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Old Shoreham Rd (Exit))	U	G	2	3	5.0	User	1900	-	-	-	-	-
6/2 (Old Shoreham Rd (Exit))	U	G	2	3	5.0	User	1900	-	-	-	-	-
7/1 (A27 West (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (A27 West (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/3 (A27 West (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Sussex Pad (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1	U	B	2	3	4.0	User	1900	-	-	-	-	-
9/2	U	B	2	3	5.0	User	1900	-	-	-	-	-

10/1	U	D	2	3	9.0	User	1900	-	-	-	-	-
10/2	U	D	2	3	9.0	User	1900	-	-	-	-	-
10/3	U	D	2	3	9.0	User	1900	-	-	-	-	-
11/1	U	F	2	3	3.0	User	1900	-	-	-	-	-
11/2	U	F	2	3	8.0	User	1900	-	-	-	-	-
12/1	U		2	3	8.0	Inf	-	-	-	-	-	-
12/2	U		2	3	8.0	Inf	-	-	-	-	-	-
12/3	U		2	3	8.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2033 Base + Committed (including permitted)'	08:00	09:00	01:00	
2: '2033 Base + Committed (including permitted)'	17:00	18:00	01:00	
3: 'AM Permitted'	08:00	09:00	01:00	
4: 'PM Permitted'	17:00	18:00	01:00	
5: 'AM - Scenario 1'	08:00	09:00	01:00	
6: 'AM - Scenario 2'	08:00	09:00	01:00	
7: 'AM - Scenario 3'	08:00	09:00	01:00	
8: 'AM - Scenario 4'	08:00	09:00	01:00	
9: 'PM - Scenario 1'	17:00	18:00	01:00	
10: 'PM - Scenario 2'	17:00	18:00	01:00	
11: 'PM - Scenario 3'	17:00	18:00	01:00	
12: 'PM - Scenario 4'	17:00	18:00	01:00	
13: '2033 AM Total - Scenario 1'	08:00	09:00	01:00	F1 - F3 + F5
14: '2033 AM Total - Scenario 2'	08:00	09:00	01:00	F1 - F3 + F6
15: '2033 AM Total - Scenario 3'	08:00	09:00	01:00	F1 - F3 + F7
16: '2033 AM Total - Scenario 4'	08:00	09:00	01:00	F1 - F3 + F8
17: '2033 PM Total - Scenario 1'	17:00	18:00	01:00	F2 - F4 + F9
18: '2033 PM Total - Scenario 2'	17:00	18:00	01:00	F2 - F4 + F10
19: '2033 PM Total - Scenario 3'	17:00	18:00	01:00	F2 - F4 + F11
20: '2033 PM Total - Scenario 4'	17:00	18:00	01:00	F2 - F4 + F12

Scenario 1: '2033 Base + Committed (including permitted) - AM' (FG1: '2033 Base + Committed (including permitted)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2347	2848
	C	2	248	0	149	399
	D	61	2805	231	0	3097
	Tot.	121	3104	677	2524	6426

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2033 Base + Committed (including permitted) - AM
Junction: A27/Old Shoreham Road	
1/1	1067
1/2	890
1/3	891
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1032
3/2	1033
3/3	1032
4/1	82
5/1	1061
5/2	1137
5/3	906
6/1	340
6/2	337
7/1	801
7/2	890
7/3	833
8/1	121
9/1 (short)	123
9/2 (with short)	262(In) 139(Out)
10/1	652
10/2	890
10/3	891
11/1 (short)	99
11/2 (with short)	308(In) 209(Out)
12/1	1010
12/2	1137
12/3	1137
13/1	340
13/2	337

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 2: '2033 AM Total - Scenario 1' (FG13: '2033 AM Total - Scenario 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2455	2956
	C	2	248	0	149	399
	D	61	2924	231	0	3216
	Tot.	121	3223	677	2632	6653

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2033 AM Total - Scenario 1
Junction: A27/Old Shoreham Road	
1/1	989
1/2	984
1/3	983
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1072
3/2	1072
3/3	1072
4/1	82
5/1	1174
5/2	1140
5/3	909
6/1	339
6/2	338
7/1	723
7/2	984
7/3	925
8/1	121
9/1 (short)	117
9/2 (with short)	262(In) 145(Out)
10/1	574
10/2	984
10/3	983
11/1 (short)	172
11/2 (with short)	308(In) 136(Out)
12/1	1123
12/2	1140
12/3	1140
13/1	339
13/2	338

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 3: '2033 AM Total - Scenario 2' (FG14: '2033 AM Total - Scenario 2', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2439	2940
	C	2	248	0	149	399
	D	61	2921	231	0	3213
	Tot.	121	3220	677	2616	6634

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2033 AM Total - Scenario 2
Junction: A27/Old Shoreham Road	
1/1	1092
1/2	924
1/3	924
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1071
3/2	1071
3/3	1071
4/1	82
5/1	1108
5/2	1171
5/3	941
6/1	340
6/2	337
7/1	826
7/2	924
7/3	866
8/1	121
9/1 (short)	122
9/2 (with short)	262(In) 140(Out)
10/1	677
10/2	924
10/3	924
11/1 (short)	107
11/2 (with short)	308(In) 201(Out)
12/1	1057
12/2	1171
12/3	1172
13/1	340
13/2	337

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 4: '2033 AM Total - Scenario 3' (FG15: '2033 AM Total - Scenario 3', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2413	2914
	C	2	248	0	149	399
	D	61	2881	231	0	3173
	Tot.	121	3180	677	2590	6568

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2033 AM Total - Scenario 3
Junction: A27/Old Shoreham Road	
1/1	1090
1/2	912
1/3	912
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1058
3/2	1057
3/3	1058
4/1	82
5/1	1080
5/2	1165
5/3	935
6/1	340
6/2	337
7/1	824
7/2	912
7/3	854
8/1	121
9/1 (short)	123
9/2 (with short)	262(In) 139(Out)
10/1	675
10/2	912
10/3	912
11/1 (short)	92
11/2 (with short)	308(In) 216(Out)
12/1	1029
12/2	1165
12/3	1166
13/1	340
13/2	337

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 5: '2033 AM Total - Scenario 4' (FG16: '2033 AM Total - Scenario 4', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2405	2906
	C	2	248	0	149	399
	D	61	2921	231	0	3213
	Tot.	121	3220	677	2582	6600

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2033 AM Total - Scenario 4
Junction: A27/Old Shoreham Road	
1/1	1086
1/2	910
1/3	910
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1071
3/2	1071
3/3	1071
4/1	82
5/1	1104
5/2	1173
5/3	943
6/1	340
6/2	337
7/1	820
7/2	910
7/3	852
8/1	121
9/1 (short)	122
9/2 (with short)	262(In) 140(Out)
10/1	671
10/2	910
10/3	910
11/1 (short)	103
11/2 (with short)	308(In) 205(Out)
12/1	1053
12/2	1173
12/3	1174
13/1	340
13/2	337

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 6: '2033 Base + Committed (including permitted) - PM' (FG2: '2033 Base + Committed (including permitted)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2464	2856
	C	5	452	0	280	737
	D	56	2497	169	0	2722
	Tot.	134	3034	490	2804	6462

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2033 Base + Committed (including permitted) - PM
Junction: A27/Old Shoreham Road	
1/1	1032
1/2	912
1/3	912
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	907
3/2	908
3/3	907
4/1	147
5/1	938
5/2	1133
5/3	963
6/1	251
6/2	239
7/1	1052
7/2	913
7/3	839
8/1	134
9/1 (short)	100
9/2 (with short)	231(In) 131(Out)
10/1	772
10/2	913
10/3	912
11/1 (short)	80
11/2 (with short)	530(In) 450(Out)
12/1	853
12/2	1133
12/3	1132
13/1	251
13/2	239

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 7: '2033 PM Total - Scenario 1' (FG17: '2033 PM Total - Scenario 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2606	2998
	C	5	452	0	280	737
	D	56	2572	169	0	2797
	Tot.	134	3109	490	2946	6679

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2033 PM Total - Scenario 1
Junction: A27/Old Shoreham Road	
1/1	1104
1/2	947
1/3	947
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	932
3/2	933
3/3	932
4/1	147
5/1	1070
5/2	1104
5/3	935
6/1	252
6/2	238
7/1	1125
7/2	947
7/3	874
8/1	134
9/1 (short)	101
9/2 (with short)	231(In) 130(Out)
10/1	845
10/2	947
10/3	947
11/1 (short)	187
11/2 (with short)	530(In) 343(Out)
12/1	985
12/2	1104
12/3	1104
13/1	252
13/2	238

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 8: '2033 PM Total - Scenario 2' (FG18: '2033 PM Total - Scenario 2', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2613	3005
	C	5	452	0	280	737
	D	56	2551	169	0	2776
	Tot.	134	3088	490	2953	6665

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2033 PM Total - Scenario 2
Junction: A27/Old Shoreham Road	
1/1	1107
1/2	949
1/3	949
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	925
3/2	925
3/3	926
4/1	147
5/1	1042
5/2	1107
5/3	939
6/1	252
6/2	238
7/1	1128
7/2	949
7/3	876
8/1	134
9/1 (short)	101
9/2 (with short)	231(In) 130(Out)
10/1	848
10/2	949
10/3	949
11/1 (short)	166
11/2 (with short)	530(In) 364(Out)
12/1	957
12/2	1107
12/3	1108
13/1	252
13/2	238

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 9: '2033 PM Total - Scenario 3' (FG19: '2033 PM Total - Scenario 3', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2554	2946
	C	5	452	0	280	737
	D	56	2544	169	0	2769
	Tot.	134	3081	490	2894	6599

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2033 PM Total - Scenario 3
Junction: A27/Old Shoreham Road	
1/1	1086
1/2	930
1/3	930
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	923
3/2	923
3/3	923
4/1	147
5/1	1039
5/2	1105
5/3	937
6/1	252
6/2	238
7/1	1107
7/2	930
7/3	857
8/1	134
9/1 (short)	101
9/2 (with short)	231(In) 130(Out)
10/1	827
10/2	930
10/3	930
11/1 (short)	165
11/2 (with short)	530(In) 365(Out)
12/1	954
12/2	1105
12/3	1106
13/1	252
13/2	238

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 10: '2033 PM Total - Scenario 4' (FG20: '2033 PM Total - Scenario 4', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2567	2959
	C	5	452	0	280	737
	D	56	2535	169	0	2760
	Tot.	134	3072	490	2907	6603

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2033 PM Total - Scenario 4
Junction: A27/Old Shoreham Road	
1/1	1092
1/2	933
1/3	934
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	920
3/2	920
3/3	920
4/1	147
5/1	1038
5/2	1101
5/3	933
6/1	252
6/2	238
7/1	1113
7/2	933
7/3	861
8/1	134
9/1 (short)	101
9/2 (with short)	231(In) 130(Out)
10/1	833
10/2	933
10/3	934
11/1 (short)	167
11/2 (with short)	530(In) 363(Out)
12/1	953
12/2	1101
12/3	1102
13/1	252
13/2	238

Lane Saturation Flows

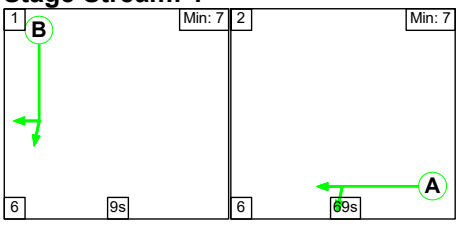
Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

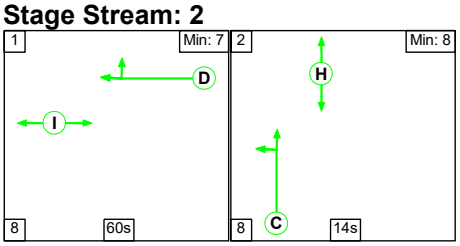
Scenario 1: '2033 Base + Committed (including permitted) - AM' (FG1: '2033 Base + Committed (including permitted)', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

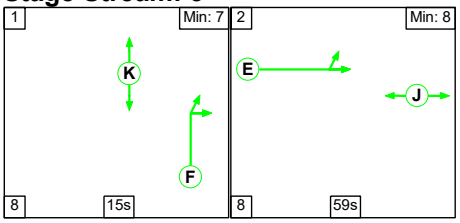
Stage Stream: 1



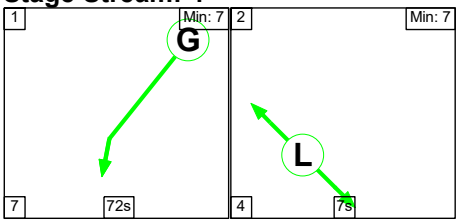
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

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Stage Stream: 2

Stage	1	2
Duration	60	14
Change Point	10	78

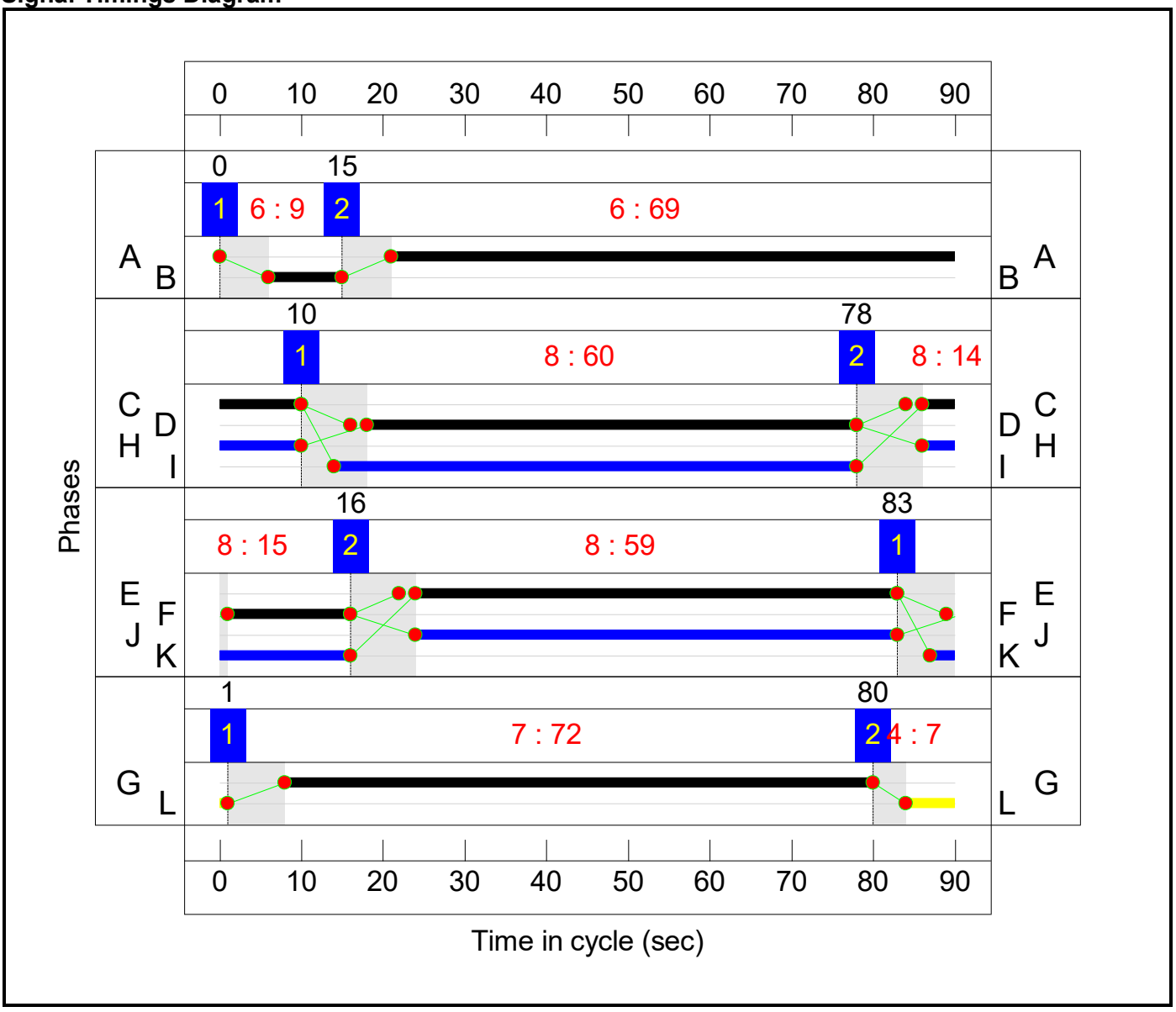
Stage Stream: 3

Stage	1	2
Duration	15	59
Change Point	83	16

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

Signal Timings Diagram



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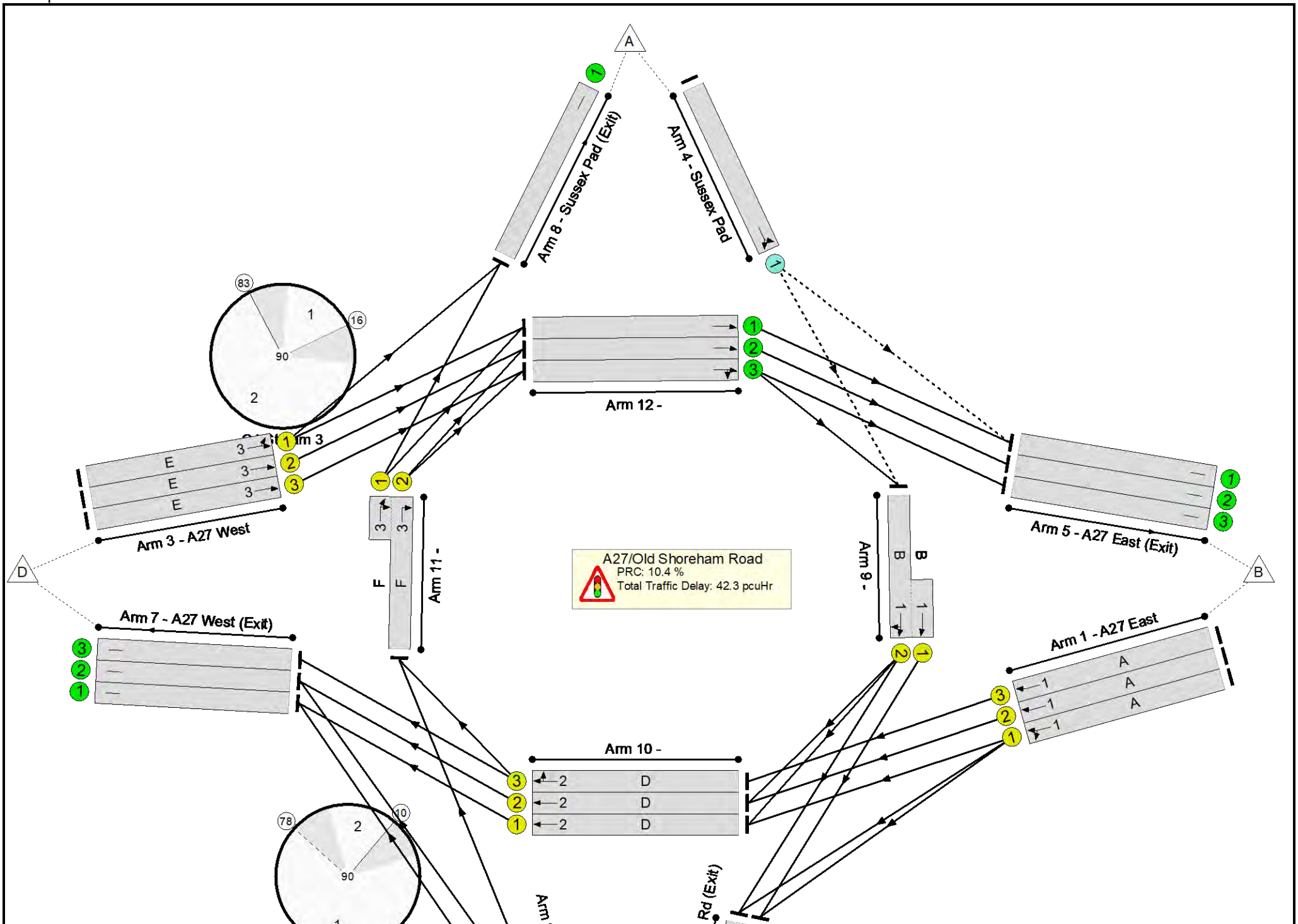
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.6%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.6%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1067	1900	1478	72.2%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	890	1900	1478	60.2%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	891	1900	1478	60.3%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	14	-	149	1900	317	47.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	14	-	250	1900:1900	0+317	0.0 : 78.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	59	-	1032	1900	1267	81.5%
3/2	A27 West Ahead	U	3	N/A	E		1	59	-	1033	1900	1267	81.6%
3/3	A27 West Ahead	U	3	N/A	E		1	59	-	1032	1900	1267	81.5%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	238	34.4%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1061	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1137	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	906	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	340	1900	1541	22.1%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	337	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	801	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	890	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	833	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	262	1900:1900	182+161	76.2 : 76.2%

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10/1	Ahead	U	2	N/A	D		1	60	-	652	1900	1288	50.6%
10/2	Ahead	U	2	N/A	D		1	60	-	890	1900	1288	69.1%
10/3	Ahead Right	U	2	N/A	D		1	60	-	891	1900	1288	69.2%
11/2+11/1	Ahead Right	U	3	N/A	F		1	15	-	308	1900:1900	263+125	79.4 : 79.4%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1010	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1137	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1137	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**24.1**	**18.2**	**0.0**	**42.3**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**24.1**	**18.2**	**0.0**	**42.3**	**-**	**-**	**-**	**-**
1/1	1067	1067	-	-	-	1.5	1.3	-	2.8	9.4	13.3	1.3	14.6
1/2	890	890	-	-	-	1.0	0.8	-	1.8	7.2	9.1	0.8	9.9
1/3	891	891	-	-	-	1.0	0.8	-	1.8	7.2	9.2	0.8	9.9
2/1	149	149	-	-	-	1.4	0.4	-	1.8	44.6	3.4	0.4	3.8
2/2+2/3	250	250	-	-	-	2.5	1.8	-	4.3	61.6	6.0	1.8	7.8
3/1	1032	1032	-	-	-	3.1	2.2	-	5.3	18.5	18.6	2.2	20.8
3/2	1033	1033	-	-	-	3.1	2.2	-	5.3	18.5	18.7	2.2	20.8
3/3	1032	1032	-	-	-	3.1	2.2	-	5.3	18.5	18.6	2.2	20.8
4/1	82	82	82	0	0	0.5	0.3	-	0.8	33.3	1.5	0.3	1.7
5/1	1061	1061	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1137	1137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	906	906	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	337	337	-	-	-	0.1	0.1	-	0.2	2.7	1.0	0.1	1.1
7/1	801	801	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	890	890	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	833	833	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.6	1.5	-	4.2	57.0	3.4	1.5	5.0
10/1	652	652	-	-	-	0.8	0.5	-	1.3	7.4	3.7	0.5	4.2
10/2	890	890	-	-	-	1.2	1.1	-	2.3	9.2	5.3	1.1	6.4
10/3	891	891	-	-	-	1.2	1.1	-	2.3	9.2	5.3	1.1	6.4
11/2+11/1	308	308	-	-	-	0.7	1.8	-	2.6	30.1	1.7	1.8	3.5
12/1	1010	1010	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1137	1137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1137	1137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

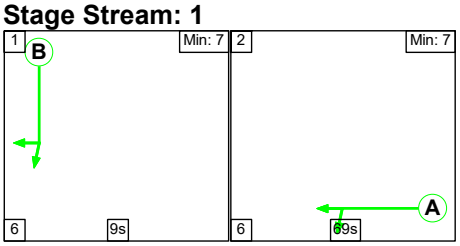
C1	Stream: 1 PRC for Signalled Lanes (%):	18.1	Total Delay for Signalled Lanes (pcuHr):	10.53	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	12.03	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	10.4	Total Delay for Signalled Lanes (pcuHr):	18.48	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	307.9	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s): 90
	PRC Over All Lanes (%):	10.4	Total Delay Over All Lanes(pcuHr):	42.29	

Full Input Data And Results

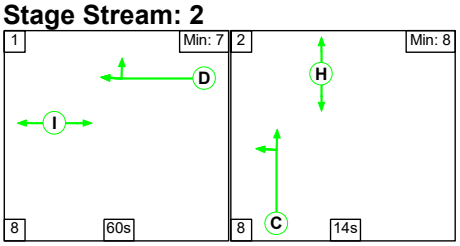
Scenario 2: '2033 AM Total - Scenario 1' (FG13: '2033 AM Total - Scenario 1', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

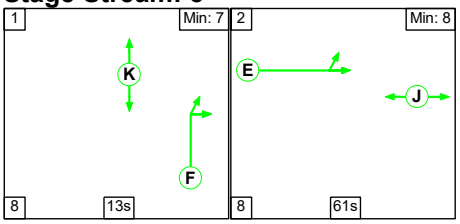
Stage Stream: 1



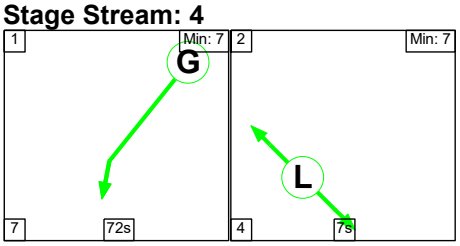
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	60	14
Change Point	8	76

Stage Stream: 3

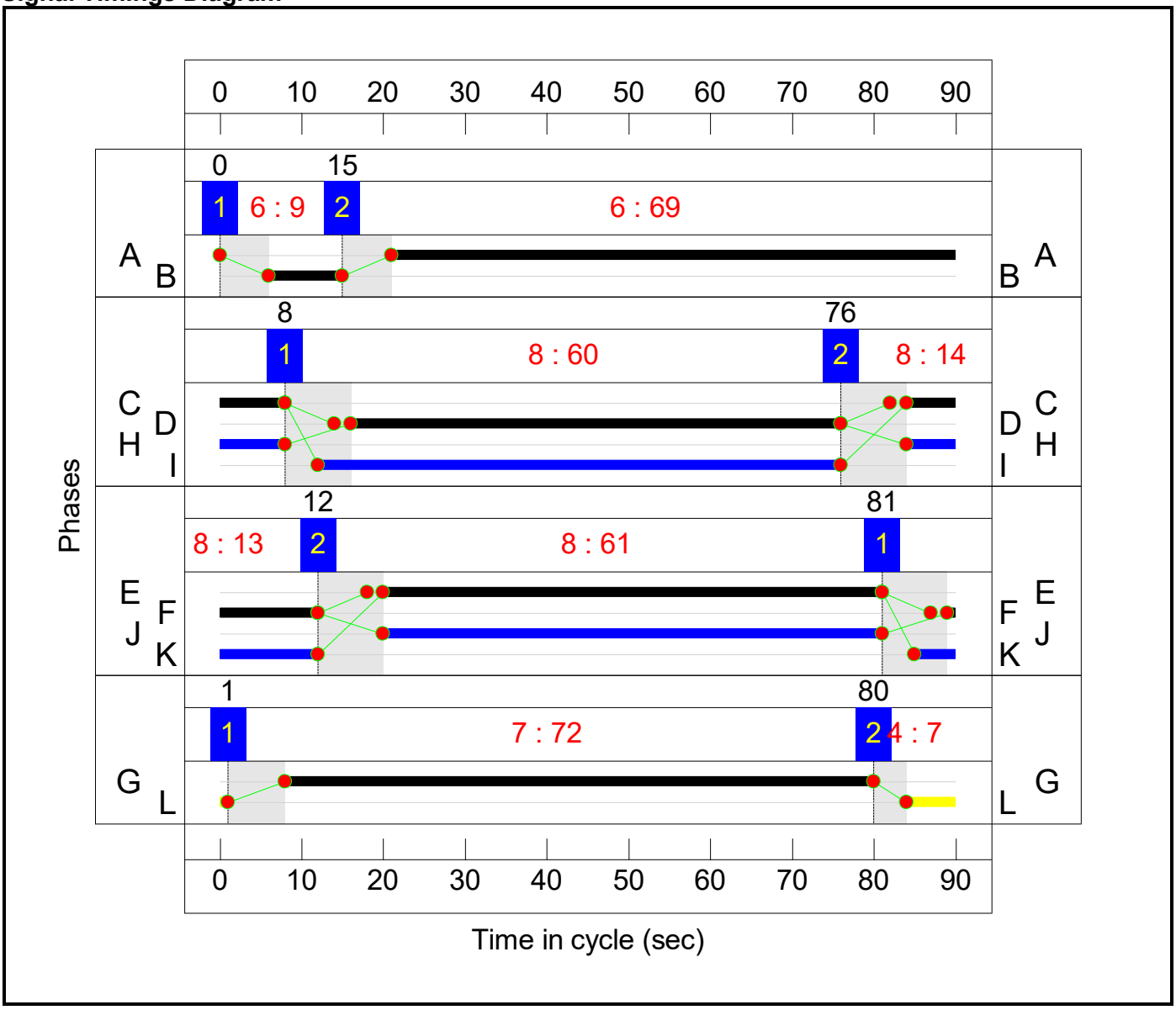
Stage	1	2
Duration	13	61
Change Point	81	12

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

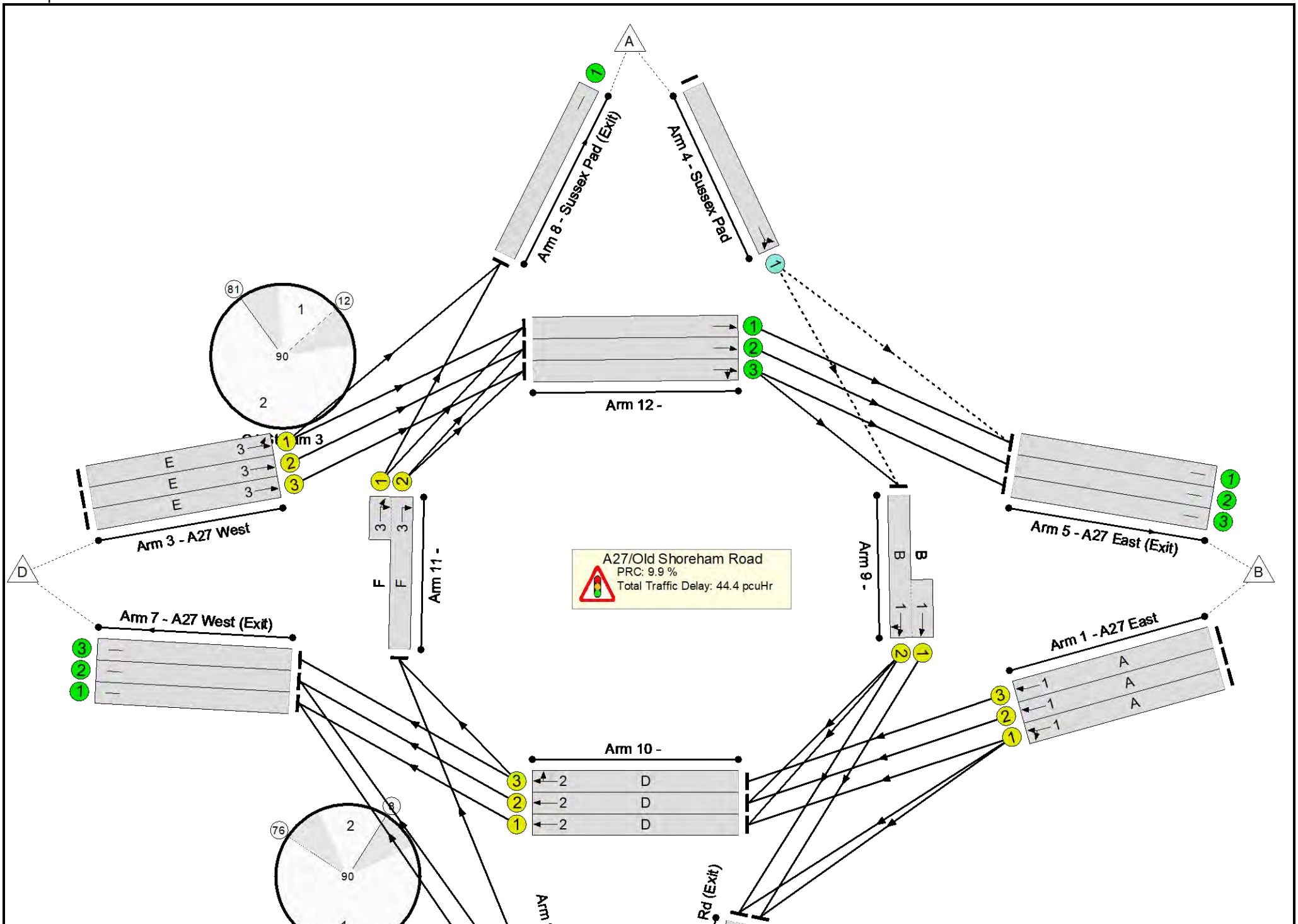
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	989	1900	1478	66.9%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	984	1900	1478	66.6%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	983	1900	1478	66.5%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	14	-	149	1900	317	47.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	14	-	250	1900:1900	0+317	0.0 : 78.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	61	-	1072	1900	1309	81.9%
3/2	A27 West Ahead	U	3	N/A	E		1	61	-	1072	1900	1309	81.9%
3/3	A27 West Ahead	U	3	N/A	E		1	61	-	1072	1900	1309	81.9%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	216	38.0%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1174	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1140	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	909	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	339	1900	1541	22.0%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	338	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	723	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	984	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	925	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	262	1900:1900	183+148	79.1 : 79.1%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	60	-	574	1900	1288	44.6%
10/2	Ahead	U	2	N/A	D		1	60	-	984	1900	1288	76.4%
10/3	Ahead Right	U	2	N/A	D		1	60	-	983	1900	1288	76.3%
11/2+11/1	Ahead Right	U	3	N/A	F		1	13	-	308	1900:1900	169+214	80.3 : 80.3%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1123	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1140	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1140	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**24.6**	**19.8**	**0.0**	**44.4**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**24.6**	**19.8**	**0.0**	**44.4**	**-**	**-**	**-**	**-**
1/1	989	989	-	-	-	1.3	1.0	-	2.3	8.3	11.3	1.0	12.3
1/2	984	984	-	-	-	1.3	1.0	-	2.3	8.2	11.2	1.0	12.2
1/3	983	983	-	-	-	1.3	1.0	-	2.2	8.2	11.2	1.0	12.2
2/1	149	149	-	-	-	1.4	0.4	-	1.8	44.6	3.4	0.4	3.8
2/2+2/3	250	250	-	-	-	2.5	1.8	-	4.3	61.6	6.0	1.8	7.8
3/1	1072	1072	-	-	-	3.0	2.2	-	5.2	17.5	19.1	2.2	21.3
3/2	1072	1072	-	-	-	3.0	2.2	-	5.2	17.5	19.1	2.2	21.3
3/3	1072	1072	-	-	-	3.0	2.2	-	5.2	17.5	19.1	2.2	21.3
4/1	82	82	82	0	0	0.5	0.3	-	0.8	36.8	1.5	0.3	1.9
5/1	1174	1174	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1140	1140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	909	909	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	339	339	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	338	338	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
7/1	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	984	984	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.8	1.8	-	4.6	62.9	3.6	1.8	5.4
10/1	574	574	-	-	-	0.8	0.4	-	1.2	7.3	3.6	0.4	4.0
10/2	984	984	-	-	-	1.4	1.6	-	3.0	11.1	5.9	1.6	7.5
10/3	983	983	-	-	-	1.4	1.6	-	3.0	11.1	5.9	1.6	7.5
11/2+11/1	308	308	-	-	-	0.8	1.9	-	2.8	32.3	2.3	1.9	4.3
12/1	1123	1123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1140	1140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1140	1140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

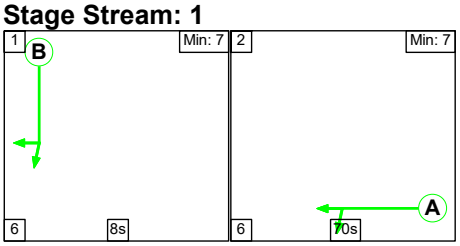
C1	Stream: 1 PRC for Signalled Lanes (%):	13.8	Total Delay for Signalled Lanes (pcuHr):	11.36	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	13.35	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	9.9	Total Delay for Signalled Lanes (pcuHr):	18.36	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	309.1	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s):	90
	PRC Over All Lanes (%):	9.9	Total Delay Over All Lanes(pcuHr):	44.40		

Full Input Data And Results

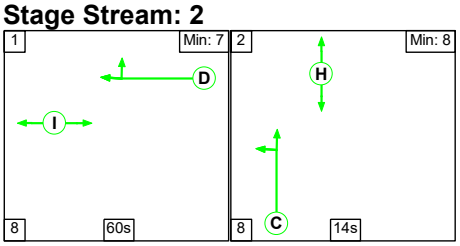
Scenario 3: '2033 AM Total - Scenario 2' (FG14: '2033 AM Total - Scenario 2', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

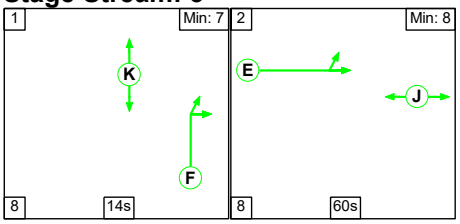
Stage Stream: 1



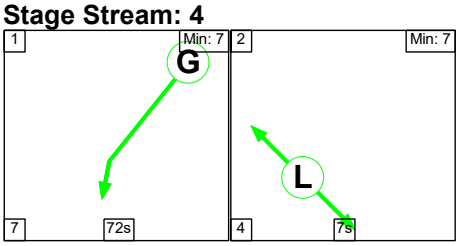
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	8	70
Change Point	0	14

Stage Stream: 2

Stage	1	2
Duration	60	14
Change Point	7	75

Stage Stream: 3

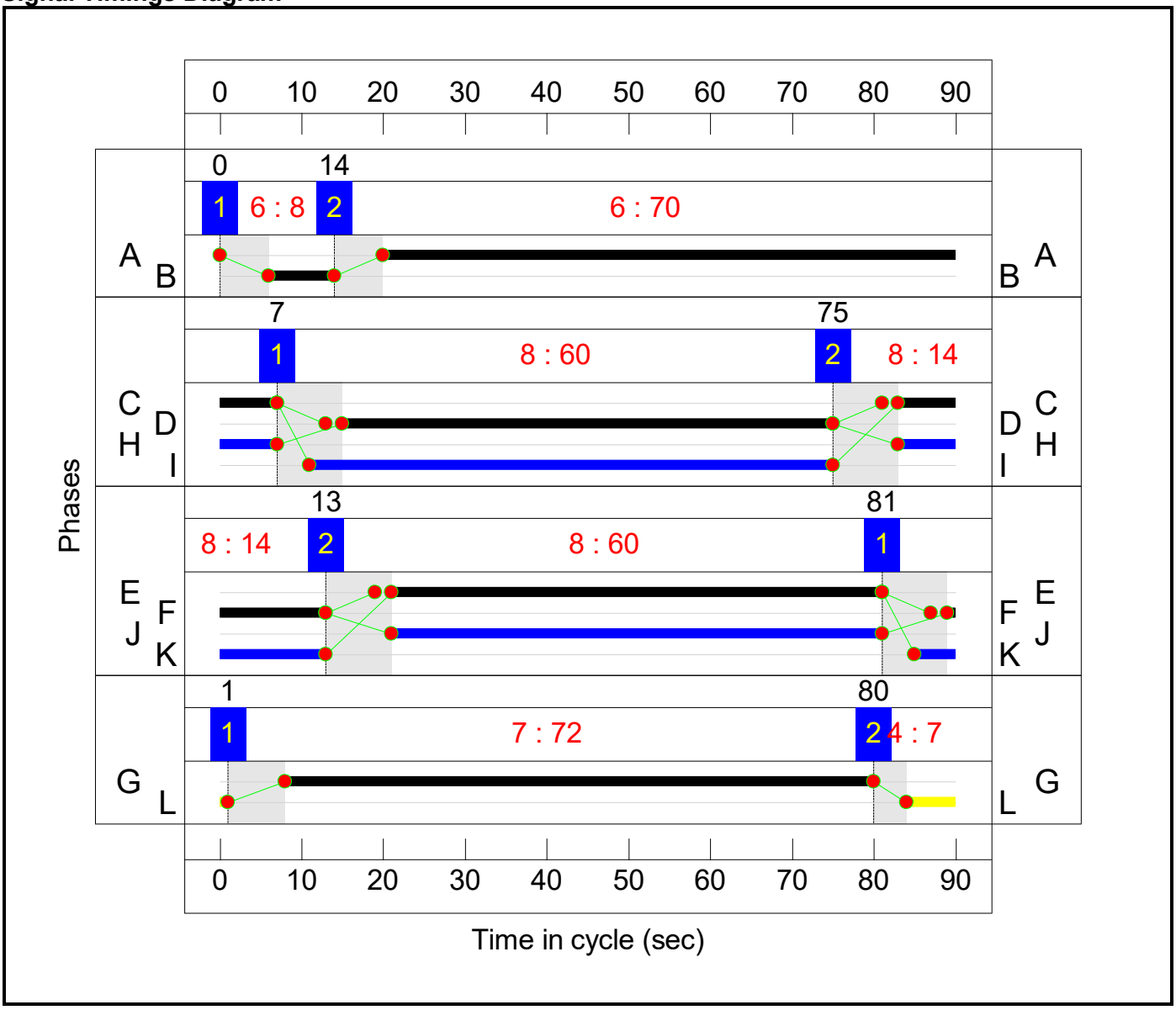
Stage	1	2
Duration	14	60
Change Point	81	13

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

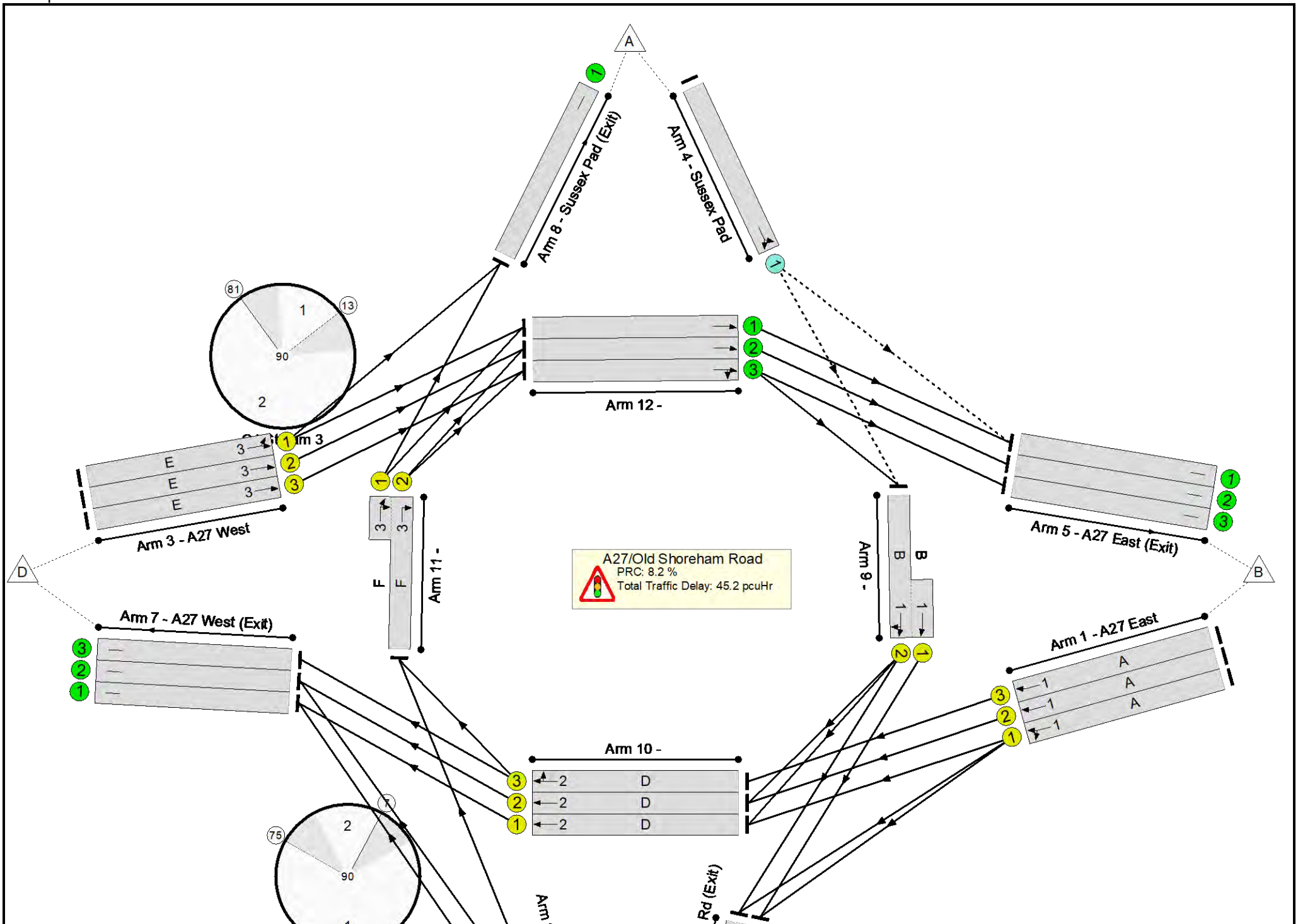
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.2%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.2%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	70	-	1092	1900	1499	72.9%
1/2	A27 East Ahead	U	1	N/A	A		1	70	-	924	1900	1499	61.6%
1/3	A27 East Ahead	U	1	N/A	A		1	70	-	924	1900	1499	61.6%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	14	-	149	1900	317	47.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	14	-	250	1900:1900	0+317	0.0 : 78.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
3/2	A27 West Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
3/3	A27 West Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	227	36.2%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1171	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	941	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	340	1900	1541	22.1%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	337	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	826	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	866	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	8	-	262	1900:1900	171+149	81.7 : 81.7%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	60	-	677	1900	1288	52.6%
10/2	Ahead	U	2	N/A	D		1	60	-	924	1900	1288	71.8%
10/3	Ahead Right	U	2	N/A	D		1	60	-	924	1900	1288	71.8%
11/2+11/1	Ahead Right	U	3	N/A	F		1	14	-	308	1900:1900	244+130	82.4 : 82.4%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1057	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1171	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1172	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**24.8**	**20.3**	**0.0**	**45.2**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**24.8**	**20.3**	**0.0**	**45.2**	**-**	**-**	**-**	**-**
1/1	1092	1092	-	-	-	1.4	1.3	-	2.8	9.1	13.3	1.3	14.7
1/2	924	924	-	-	-	1.0	0.8	-	1.8	7.0	9.2	0.8	10.0
1/3	924	924	-	-	-	1.0	0.8	-	1.8	7.0	9.2	0.8	10.0
2/1	149	149	-	-	-	1.4	0.4	-	1.8	44.6	3.4	0.4	3.8
2/2+2/3	250	250	-	-	-	2.5	1.8	-	4.3	61.6	6.0	1.8	7.8
3/1	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
3/2	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
3/3	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
4/1	82	82	82	0	0	0.5	0.3	-	0.8	35.0	1.5	0.3	1.8
5/1	1108	1108	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1171	1171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	941	941	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	337	337	-	-	-	0.1	0.1	-	0.2	2.7	1.0	0.1	1.1
7/1	826	826	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	866	866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.8	2.1	-	4.8	66.5	3.5	2.1	5.6
10/1	677	677	-	-	-	1.0	0.6	-	1.5	8.0	4.4	0.6	4.9
10/2	924	924	-	-	-	1.4	1.3	-	2.6	10.3	5.5	1.3	6.7
10/3	924	924	-	-	-	1.4	1.3	-	2.6	10.3	5.5	1.3	6.7
11/2+11/1	308	308	-	-	-	0.7	2.2	-	2.9	34.4	1.8	2.2	4.0
12/1	1057	1057	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1171	1171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1172	1172	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

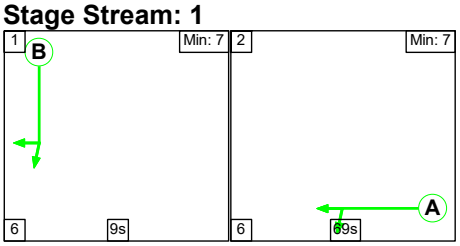
C1	Stream: 1 PRC for Signalled Lanes (%):	10.1	Total Delay for Signalled Lanes (pcuHr):	11.21	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	12.92	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	8.2	Total Delay for Signalled Lanes (pcuHr):	19.75	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	307.9	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s):	90
	PRC Over All Lanes (%):	8.2	Total Delay Over All Lanes(pcuHr):	45.17		

Full Input Data And Results

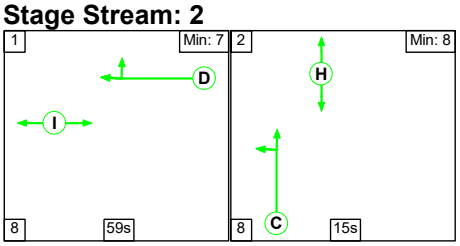
Scenario 4: '2033 AM Total - Scenario 3' (FG15: '2033 AM Total - Scenario 3', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

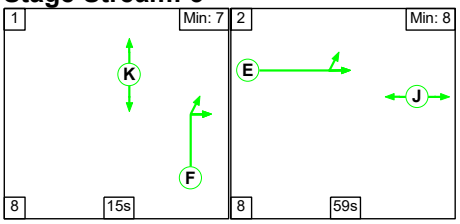
Stage Stream: 1



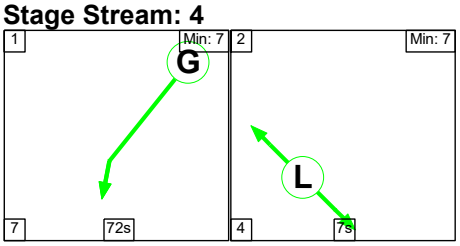
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	59	15
Change Point	8	75

Stage Stream: 3

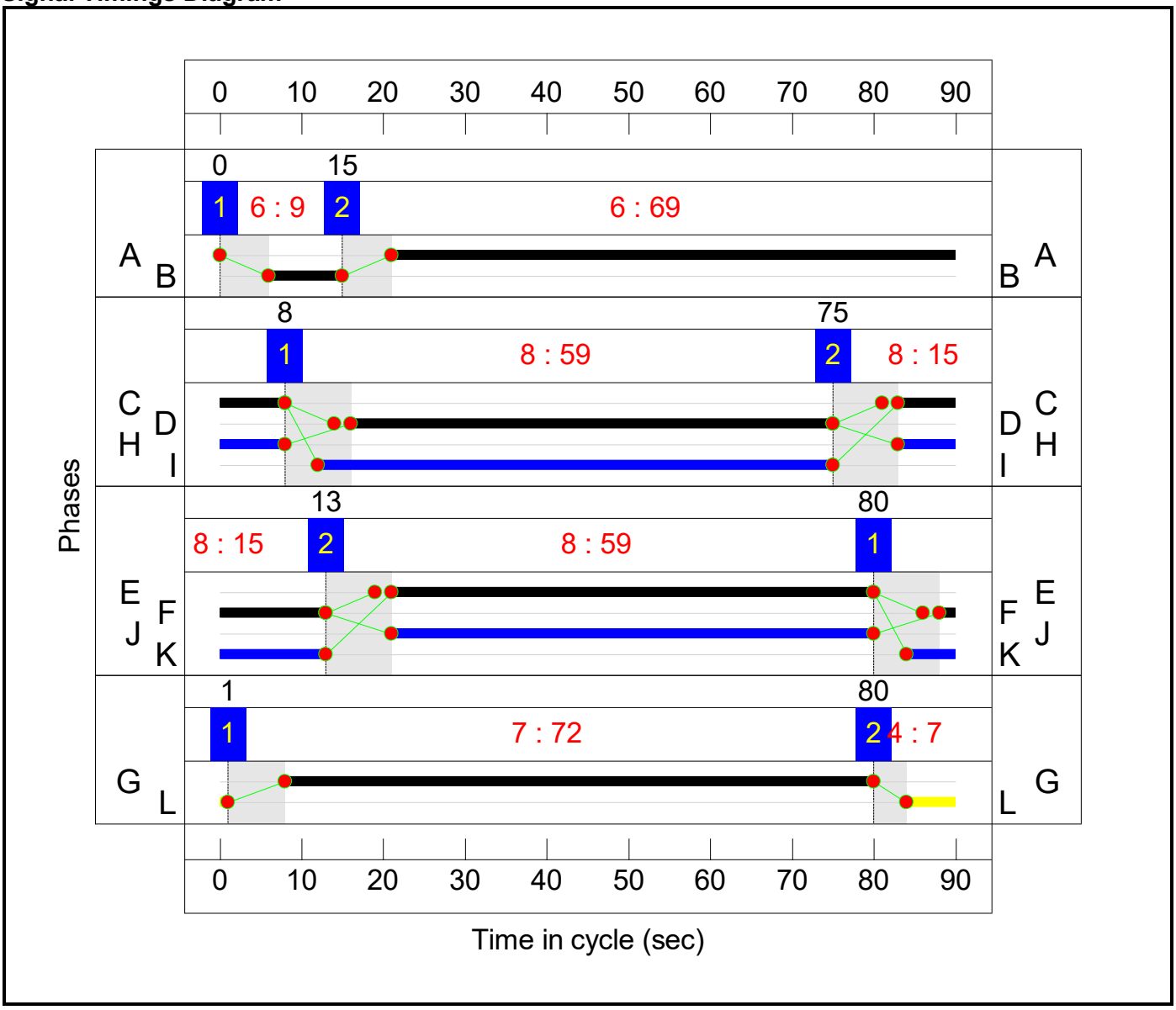
Stage	1	2
Duration	15	59
Change Point	80	13

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

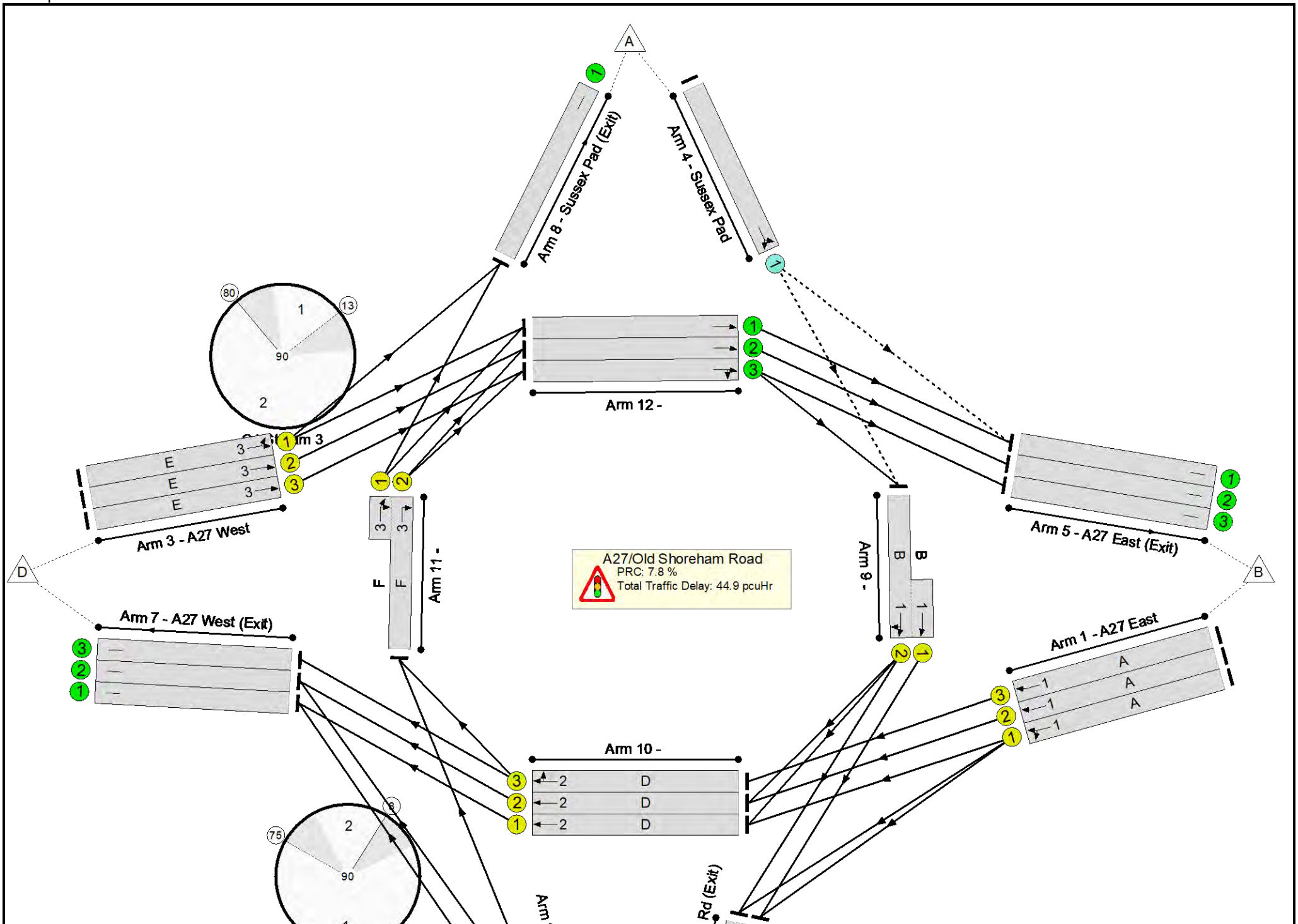
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.5%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.5%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1090	1900	1478	73.8%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	912	1900	1478	61.7%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	912	1900	1478	61.7%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	15	-	149	1900	338	44.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	15	-	250	1900:1900	0+338	0.0 : 74.0%
3/1	A27 West Left Ahead	U	3	N/A	E		1	59	-	1058	1900	1267	83.5%
3/2	A27 West Ahead	U	3	N/A	E		1	59	-	1057	1900	1267	83.4%
3/3	A27 West Ahead	U	3	N/A	E		1	59	-	1058	1900	1267	83.5%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	238	34.5%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1080	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1165	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	340	1900	1541	22.1%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	337	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	824	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	912	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	854	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	262	1900:1900	182+161	76.2 : 76.2%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	59	-	675	1900	1267	53.3%
10/2	Ahead	U	2	N/A	D		1	59	-	912	1900	1267	72.0%
10/3	Ahead Right	U	2	N/A	D		1	59	-	912	1900	1267	72.0%
11/2+11/1	Ahead Right	U	3	N/A	F		1	15	-	308	1900:1900	268+114	80.6 : 80.6%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1029	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1165	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1166	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**25.5**	**19.4**	**0.0**	**44.9**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**25.5**	**19.4**	**0.0**	**44.9**	**-**	**-**	**-**	**-**
1/1	1090	1090	-	-	-	1.6	1.4	-	3.0	9.8	13.9	1.4	15.3
1/2	912	912	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
1/3	912	912	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
2/1	149	149	-	-	-	1.4	0.4	-	1.8	42.5	3.3	0.4	3.7
2/2+2/3	250	250	-	-	-	2.4	1.4	-	3.8	54.9	5.9	1.4	7.3
3/1	1058	1058	-	-	-	3.3	2.5	-	5.8	19.7	19.7	2.5	22.2
3/2	1057	1057	-	-	-	3.3	2.5	-	5.8	19.7	19.7	2.5	22.1
3/3	1058	1058	-	-	-	3.3	2.5	-	5.8	19.7	19.7	2.5	22.2
4/1	82	82	82	0	0	0.5	0.3	-	0.8	33.4	1.5	0.3	1.7
5/1	1080	1080	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1165	1165	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	935	935	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	337	337	-	-	-	0.1	0.1	-	0.2	2.7	1.0	0.1	1.1
7/1	824	824	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	912	912	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	854	854	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.8	1.5	-	4.3	59.4	3.4	1.5	5.0
10/1	675	675	-	-	-	1.0	0.6	-	1.6	8.4	4.4	0.6	4.9
10/2	912	912	-	-	-	1.4	1.3	-	2.7	10.6	5.4	1.3	6.7
10/3	912	912	-	-	-	1.4	1.3	-	2.7	10.6	5.4	1.3	6.7
11/2+11/1	308	308	-	-	-	0.7	2.0	-	2.7	31.6	1.6	2.0	3.6
12/1	1029	1029	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1165	1165	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1166	1166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

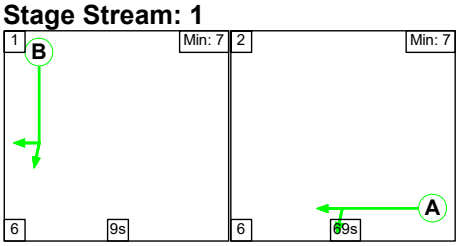
C1	Stream: 1 PRC for Signalled Lanes (%):	18.1	Total Delay for Signalled Lanes (pcuHr):	11.07	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	21.6	Total Delay for Signalled Lanes (pcuHr):	12.53	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	7.8	Total Delay for Signalled Lanes (pcuHr):	20.06	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	307.9	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s):	90
	PRC Over All Lanes (%):	7.8	Total Delay Over All Lanes(pcuHr):	44.91		

Full Input Data And Results

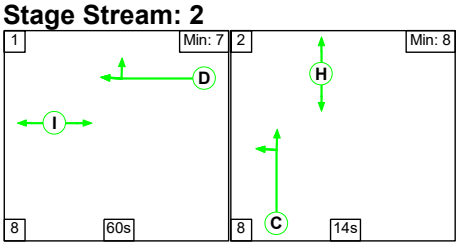
Scenario 5: '2033 AM Total - Scenario 4' (FG16: '2033 AM Total - Scenario 4', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

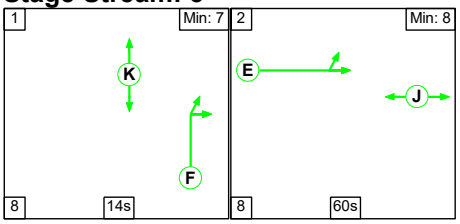
Stage Stream: 1



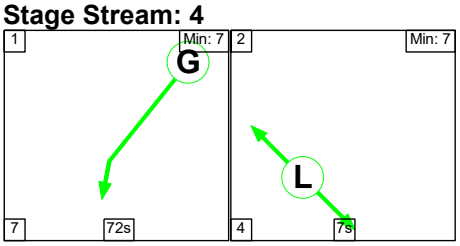
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	60	14
Change Point	9	77

Stage Stream: 3

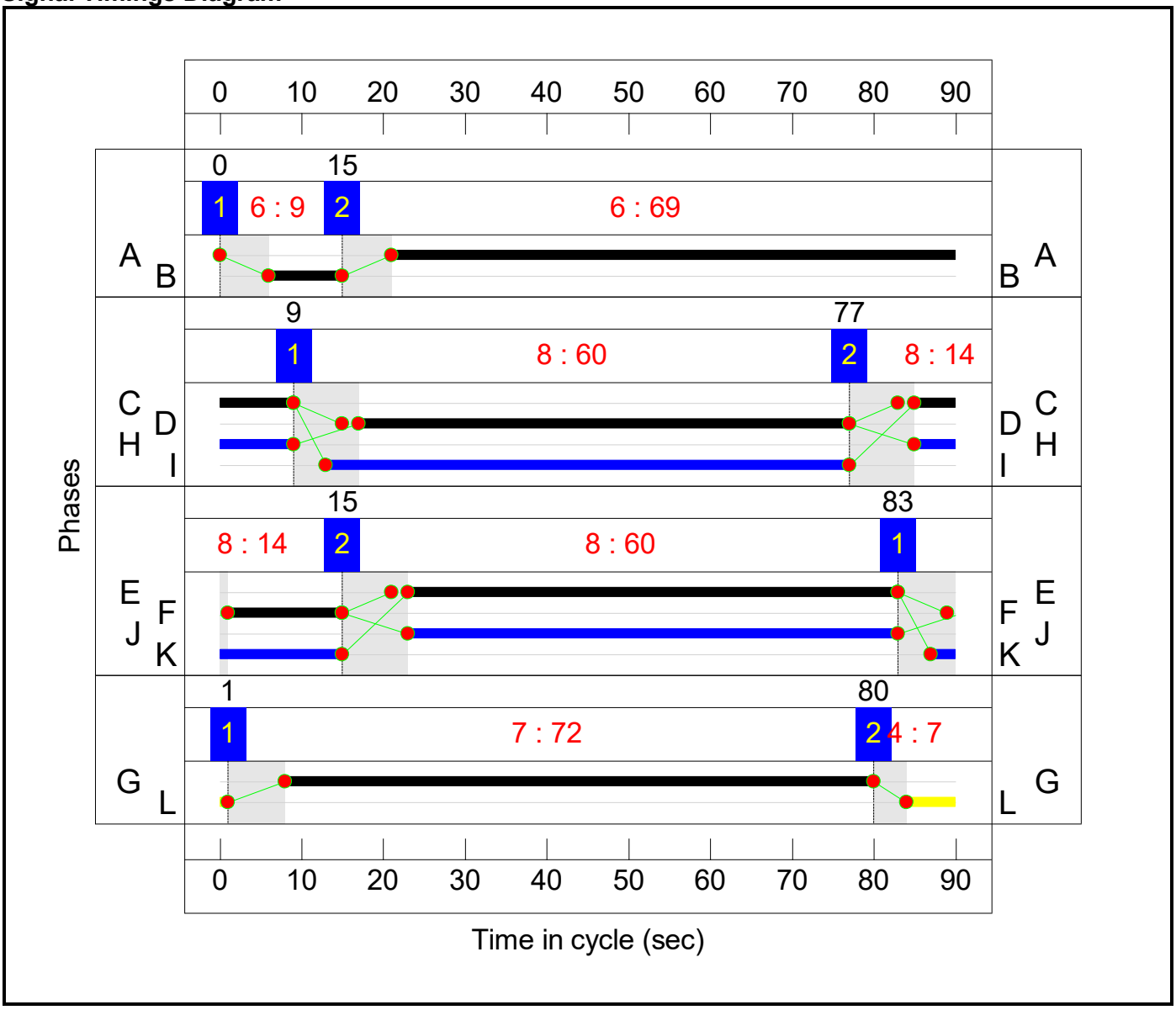
Stage	1	2
Duration	14	60
Change Point	83	15

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

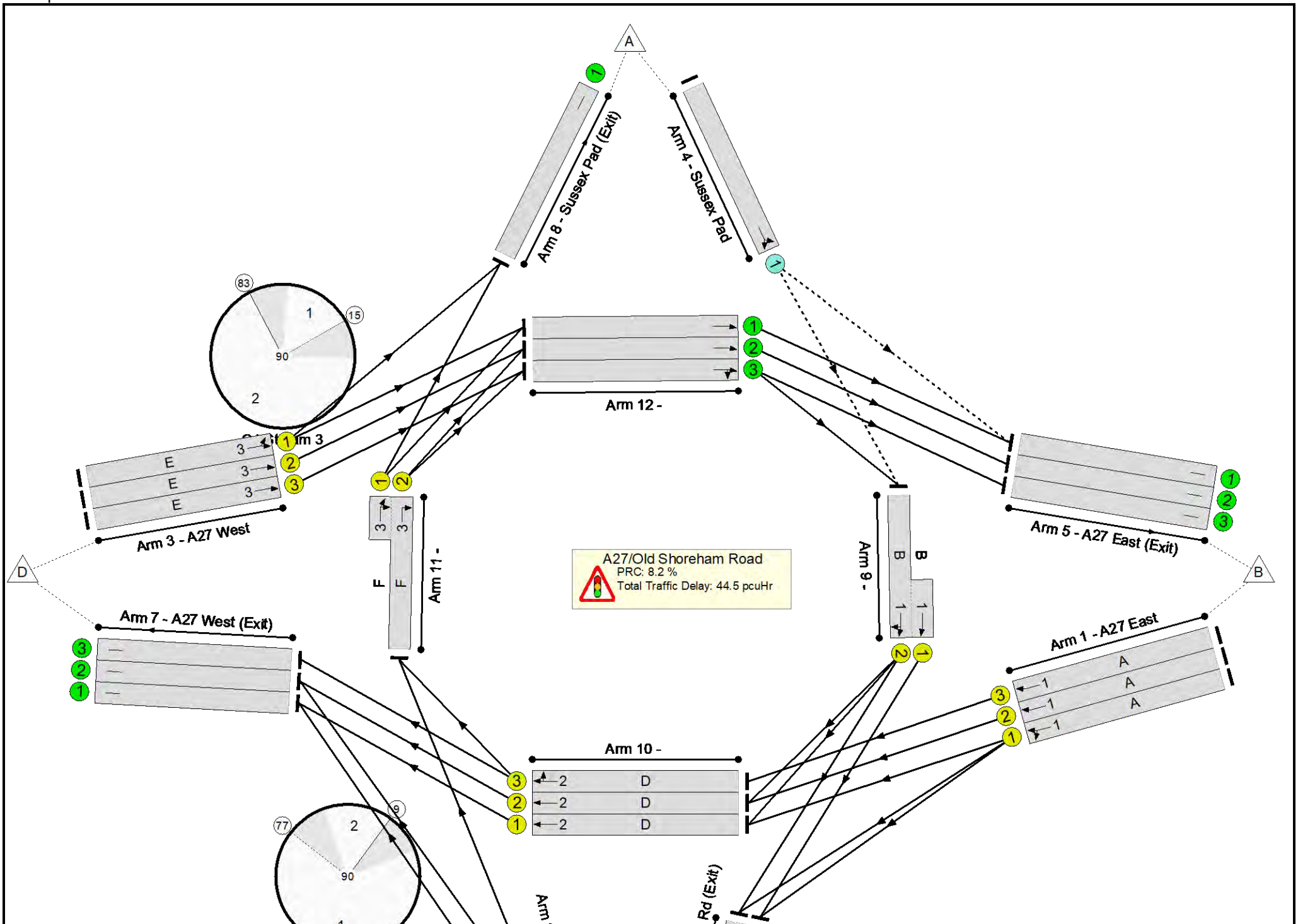
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.2%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.2%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1086	1900	1478	73.5%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	910	1900	1478	61.6%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	910	1900	1478	61.6%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	14	-	149	1900	317	47.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	14	-	250	1900:1900	0+317	0.0 : 78.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
3/2	A27 West Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
3/3	A27 West Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	227	36.2%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	943	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	340	1900	1541	22.1%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	337	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	910	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	852	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	262	1900:1900	183+159	76.7 : 76.7%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	60	-	671	1900	1288	52.1%
10/2	Ahead	U	2	N/A	D		1	60	-	910	1900	1288	70.7%
10/3	Ahead Right	U	2	N/A	D		1	60	-	910	1900	1288	70.7%
11/2+11/1	Ahead Right	U	3	N/A	F		1	14	-	308	1900:1900	246+124	83.2 : 83.2%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1053	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1174	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**24.7**	**19.8**	**0.0**	**44.5**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**24.7**	**19.8**	**0.0**	**44.5**	**-**	**-**	**-**	**-**
1/1	1086	1086	-	-	-	1.6	1.4	-	2.9	9.8	13.9	1.4	15.3
1/2	910	910	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
1/3	910	910	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
2/1	149	149	-	-	-	1.4	0.4	-	1.8	44.6	3.4	0.4	3.8
2/2+2/3	250	250	-	-	-	2.5	1.8	-	4.3	61.6	6.0	1.8	7.8
3/1	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
3/2	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
3/3	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
4/1	82	82	82	0	0	0.5	0.3	-	0.8	35.0	1.5	0.3	1.8
5/1	1104	1104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1173	1173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	943	943	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	337	337	-	-	-	0.1	0.1	-	0.2	2.7	1.0	0.1	1.1
7/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	910	910	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.6	1.6	-	4.2	57.7	3.4	1.6	5.0
10/1	671	671	-	-	-	0.9	0.5	-	1.4	7.7	4.0	0.5	4.5
10/2	910	910	-	-	-	1.2	1.2	-	2.4	9.7	4.9	1.2	6.1
10/3	910	910	-	-	-	1.2	1.2	-	2.4	9.7	4.9	1.2	6.1
11/2+11/1	308	308	-	-	-	0.7	2.3	-	3.1	35.7	1.8	2.3	4.1
12/1	1053	1053	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1173	1173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1174	1174	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

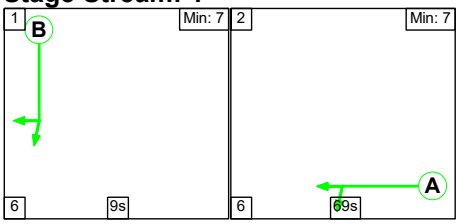
C1	Stream: 1 PRC for Signalled Lanes (%):	17.4	Total Delay for Signalled Lanes (pcuHr):	10.89	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	12.45	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	8.2	Total Delay for Signalled Lanes (pcuHr):	19.86	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	307.9	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s): 90
	PRC Over All Lanes (%):	8.2	Total Delay Over All Lanes(pcuHr):	44.50	

Full Input Data And Results

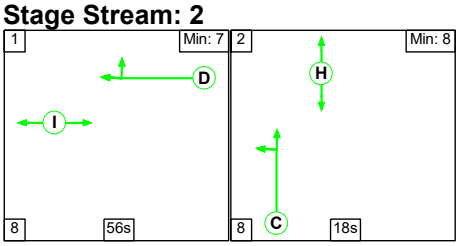
Scenario 6: '2033 Base + Committed (including permitted) - PM' (FG2: '2033 Base + Committed (including permitted)', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

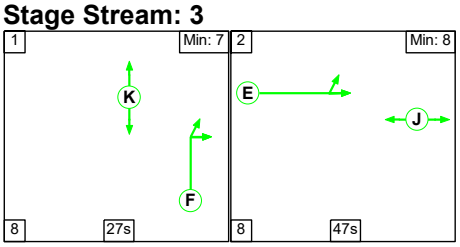
Stage Stream: 1



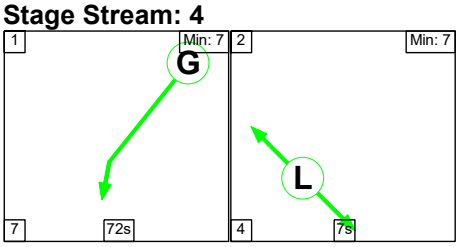
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	5	69

Stage Stream: 3

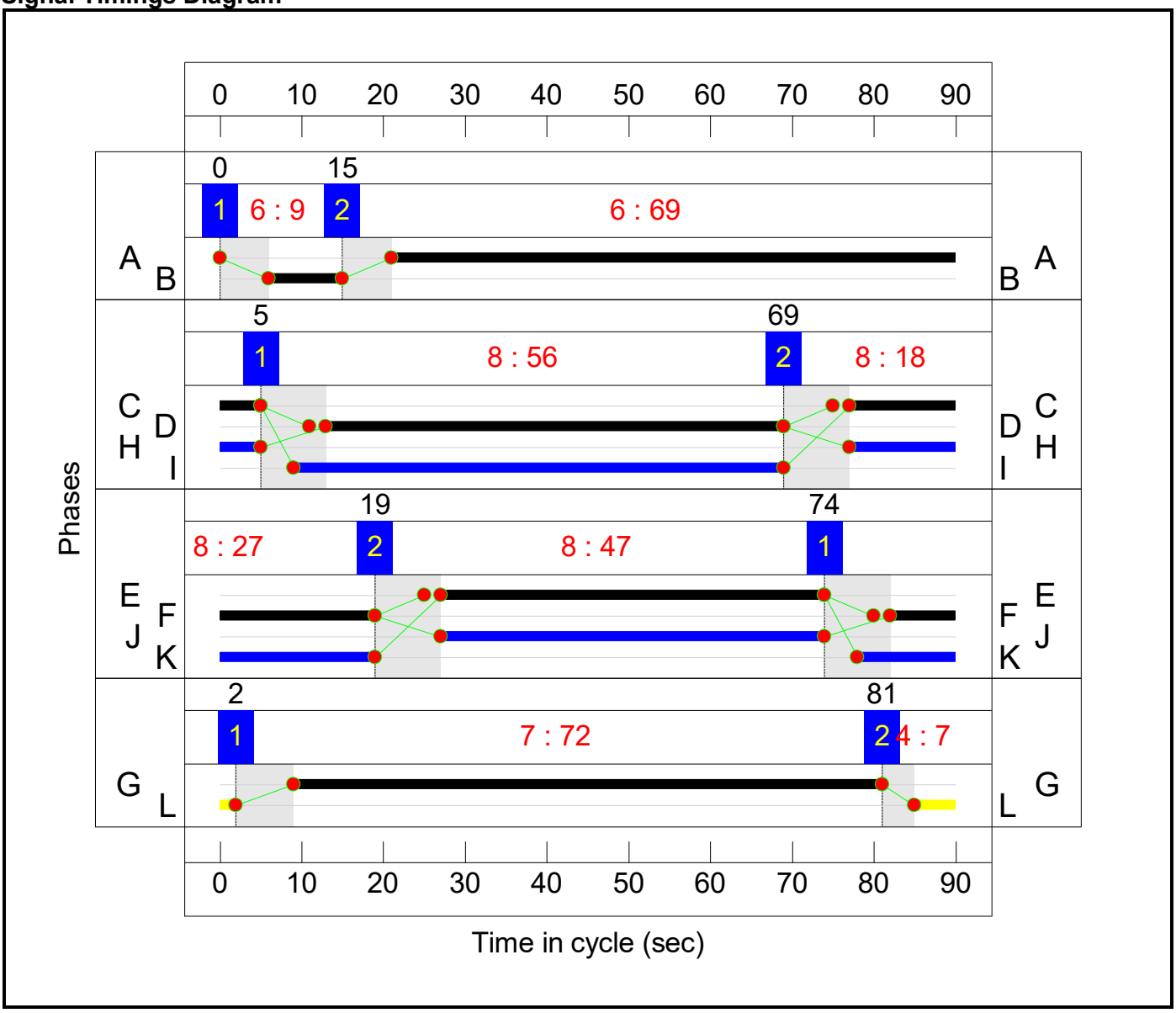
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

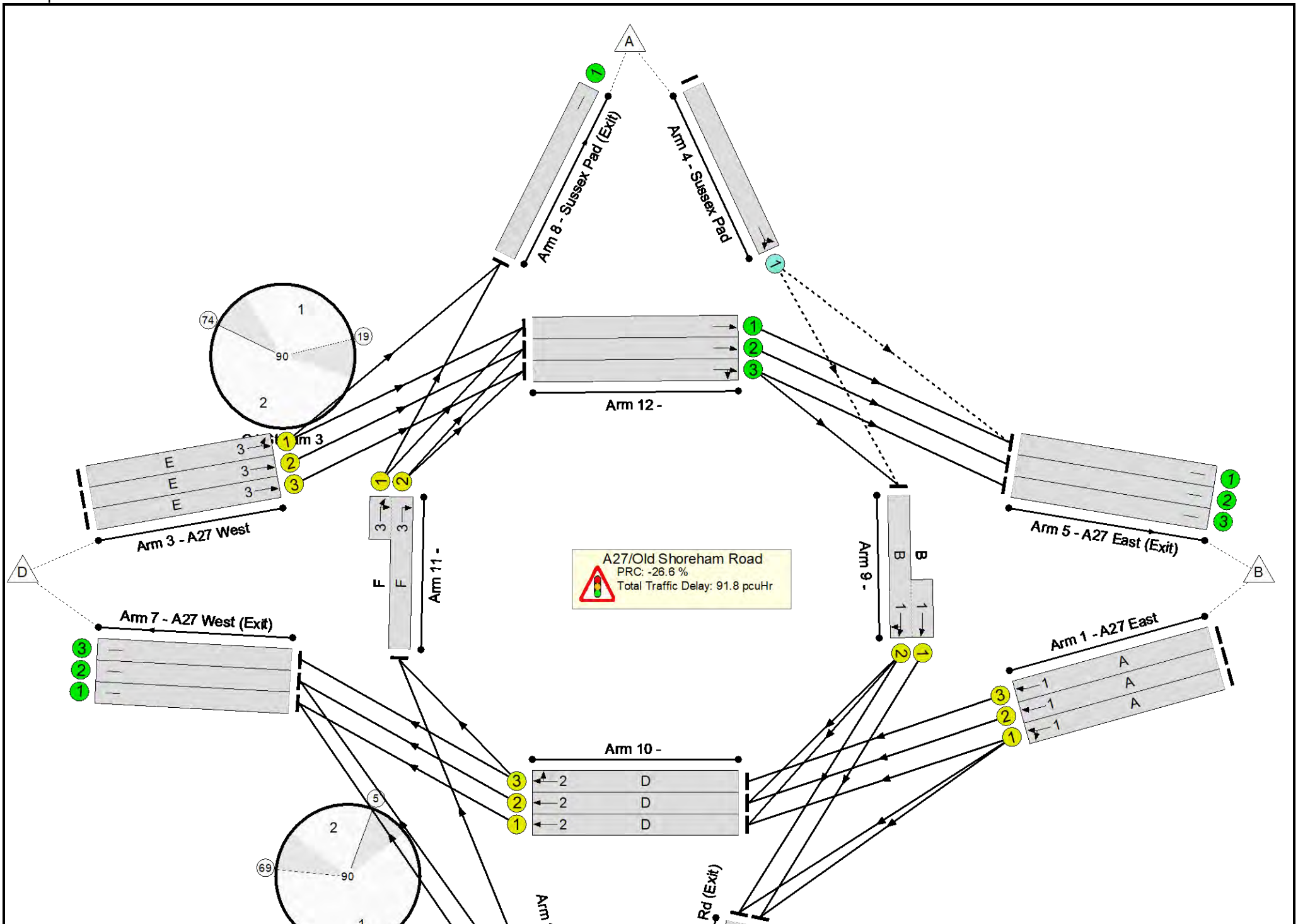
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1032	1900	1478	69.8%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	912	1900	1478	61.7%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	912	1900	1478	61.7%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	907	1900	1013	89.5%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	908	1900	1013	89.6%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	907	1900	1013	89.5%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	330	44.5%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	938	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1133	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	963	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	251	1900	1541	16.3%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	239	1900	1541	15.5%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1052	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	913	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+140	71.2 : 71.2%
10/1	Ahead	U	2	N/A	D		1	56	-	772	1900	1203	64.2%
10/2	Ahead	U	2	N/A	D		1	56	-	913	1900	1203	75.9%
10/3	Ahead Right	U	2	N/A	D		1	56	-	912	1900	1203	75.8%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	514+91	76.8 : 86.6%
12/1	Ahead	U	N/A	N/A	-		-	-	-	853	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1133	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1132	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	251	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**36.9**	**54.9**	**0.0**	**91.8**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**36.9**	**54.9**	**0.0**	**91.8**	**-**	**-**	**-**	**-**
1/1	1032	1032	-	-	-	1.4	1.2	-	2.5	8.9	12.3	1.2	13.5
1/2	912	912	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
1/3	912	912	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.3	31.6	-	38.9	306.4	13.6	31.6	45.1
3/1	907	907	-	-	-	4.7	4.0	-	8.7	34.5	20.2	4.0	24.1
3/2	908	908	-	-	-	4.7	4.0	-	8.7	34.7	20.2	4.0	24.2
3/3	907	907	-	-	-	4.7	4.0	-	8.7	34.5	20.2	4.0	24.1
4/1	147	147	147	0	0	0.6	0.4	-	1.0	24.4	2.3	0.4	2.7
5/1	938	938	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1105	1105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	935	935	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	251	251	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	239	239	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1052	1052	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	839	839	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.5	53.8	3.2	1.2	4.4
10/1	772	772	-	-	-	1.6	0.9	-	2.5	11.5	6.7	0.9	7.6
10/2	913	913	-	-	-	1.9	1.6	-	3.5	13.8	6.9	1.6	8.5
10/3	912	912	-	-	-	1.9	1.5	-	3.5	13.8	6.9	1.5	8.5
11/2+11/1	474	474	-	-	-	0.8	1.8	-	2.5	19.3	1.8	1.8	3.5
12/1	853	853	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1105	1105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1104	1104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	251	251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

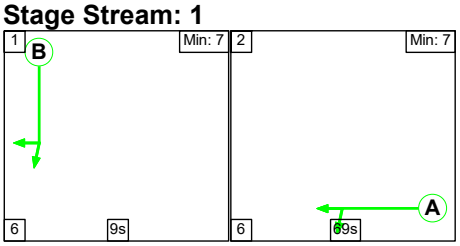
C1	Stream: 1 PRC for Signalled Lanes (%):	26.4	Total Delay for Signalled Lanes (pcuHr):	9.77	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	52.04	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	0.4	Total Delay for Signalled Lanes (pcuHr):	28.67	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	452.6	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s): 90
	PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	91.82	

Full Input Data And Results

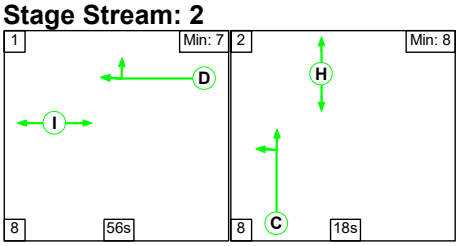
Scenario 7: '2033 PM Total - Scenario 1' (FG17: '2033 PM Total - Scenario 1', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

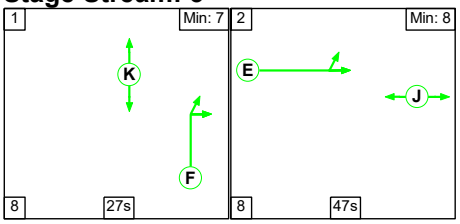
Stage Stream: 1



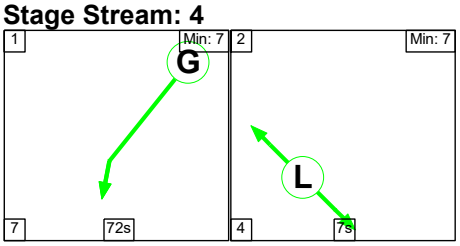
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	4	68

Stage Stream: 3

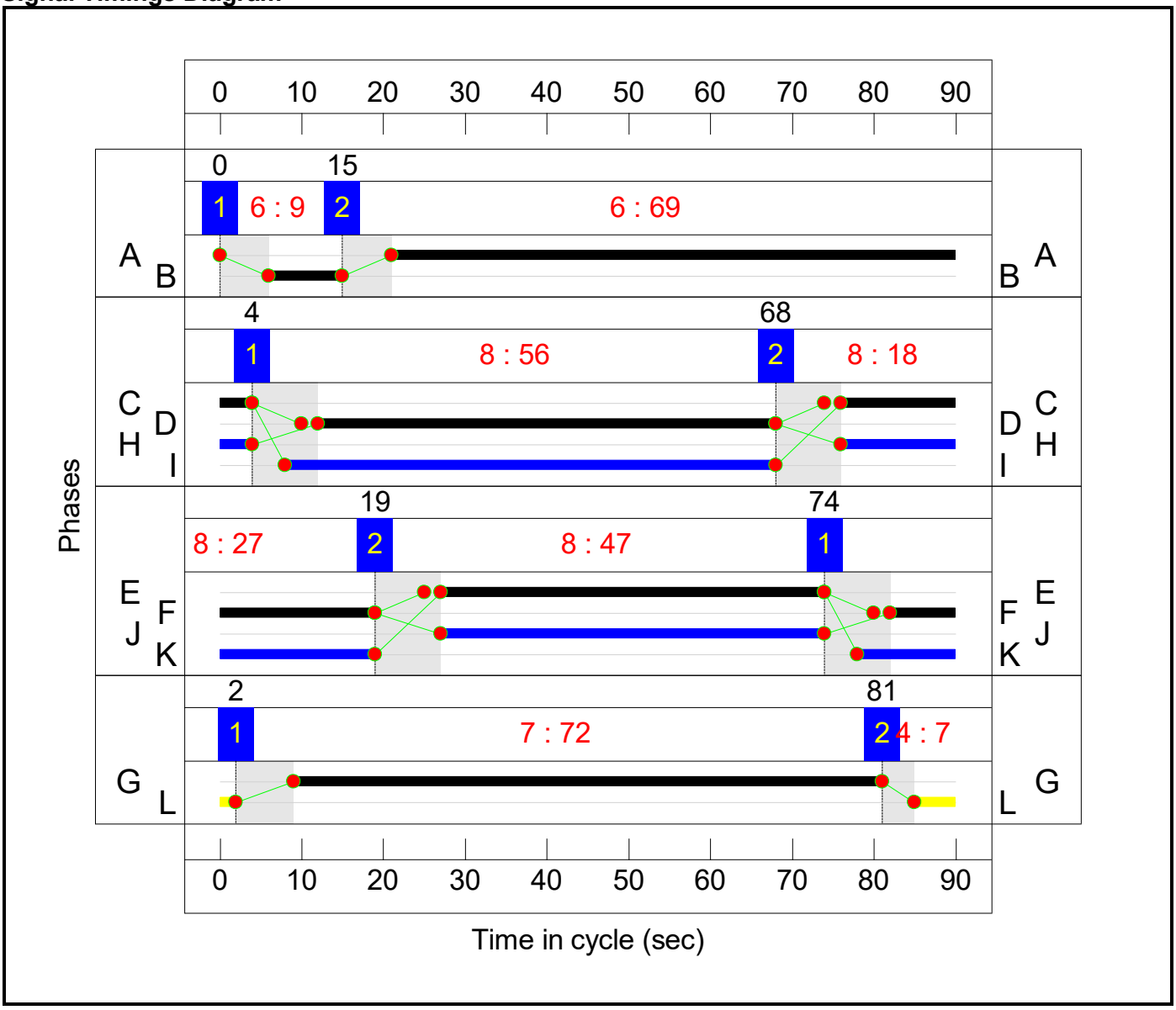
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

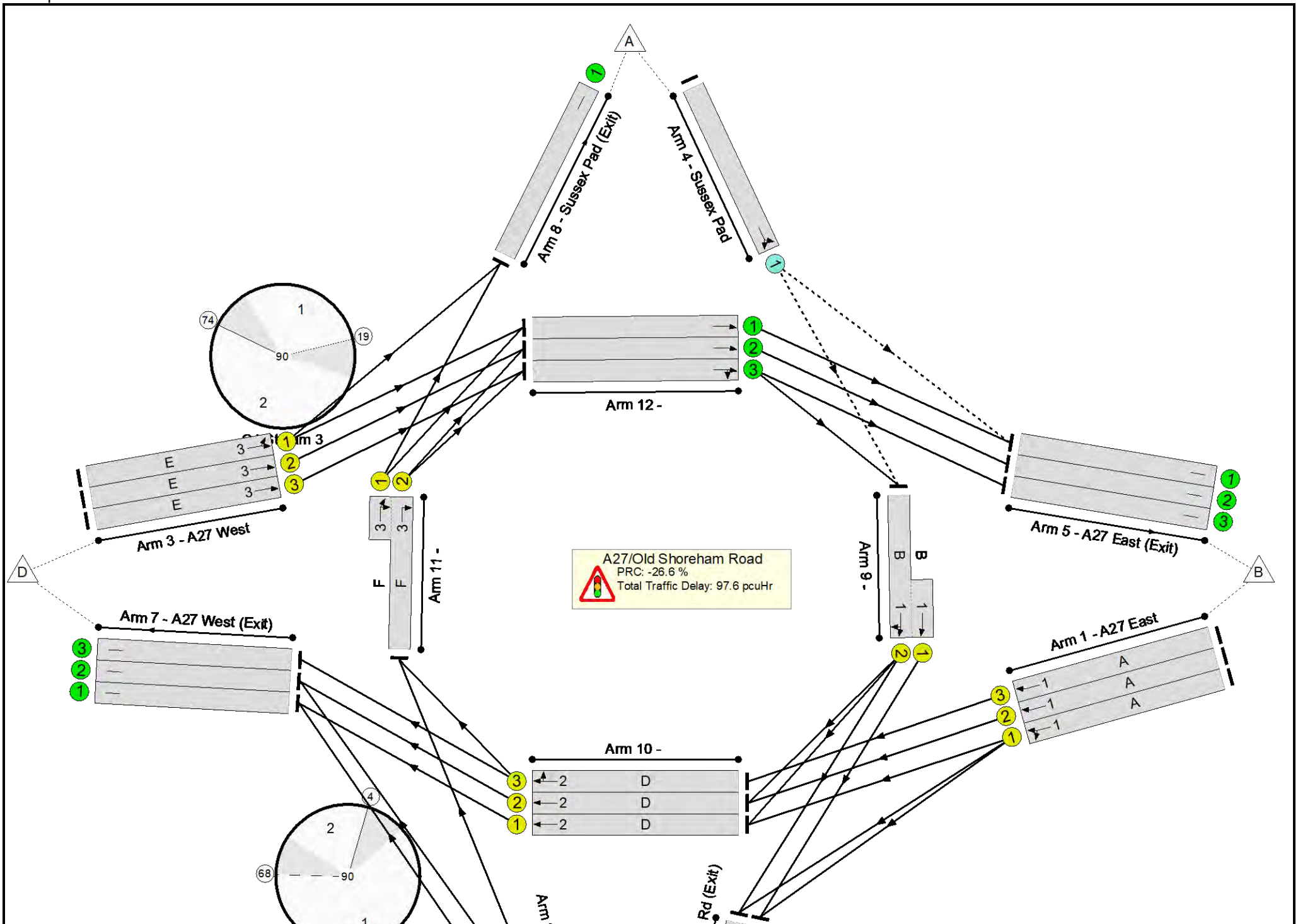
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1104	1900	1478	74.7%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	947	1900	1478	64.1%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	947	1900	1478	64.1%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	932	1900	1013	92.0%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	933	1900	1013	92.1%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	932	1900	1013	92.0%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	326	45.1%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1070	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	252	1900	1541	16.4%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	238	1900	1541	15.4%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1125	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	947	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	874	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+143	70.7 : 70.7%
10/1	Ahead	U	2	N/A	D		1	56	-	845	1900	1203	70.2%
10/2	Ahead	U	2	N/A	D		1	56	-	947	1900	1203	78.7%
10/3	Ahead Right	U	2	N/A	D		1	56	-	947	1900	1203	78.7%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	421+229	71.6 : 75.5%
12/1	Ahead	U	N/A	N/A	-		-	-	-	985	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**38.4**	**59.2**	**0.0**	**97.6**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**38.4**	**59.2**	**0.0**	**97.6**	**-**	**-**	**-**	**-**
1/1	1104	1104	-	-	-	1.6	1.5	-	3.1	10.1	14.4	1.5	15.9
1/2	947	947	-	-	-	1.2	0.9	-	2.1	7.8	10.3	0.9	11.1
1/3	947	947	-	-	-	1.2	0.9	-	2.1	7.8	10.3	0.9	11.1
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.2	31.6	-	38.8	305.5	13.5	31.6	45.0
3/1	932	932	-	-	-	5.0	5.1	-	10.1	38.9	21.2	5.1	26.3
3/2	933	933	-	-	-	5.0	5.1	-	10.1	39.1	21.3	5.1	26.4
3/3	932	932	-	-	-	5.0	5.1	-	10.1	38.9	21.2	5.1	26.3
4/1	147	147	147	0	0	0.6	0.4	-	1.0	25.0	2.4	0.4	2.8
5/1	1057	1057	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	914	914	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	238	238	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1125	1125	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	947	947	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	874	874	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.4	52.9	3.2	1.2	4.4
10/1	845	845	-	-	-	1.8	1.2	-	3.0	12.7	7.6	1.2	8.8
10/2	947	947	-	-	-	2.1	1.8	-	3.9	14.9	7.4	1.8	9.2
10/3	947	947	-	-	-	2.1	1.8	-	3.9	14.9	7.4	1.8	9.2
11/2+11/1	474	474	-	-	-	0.8	1.3	-	2.1	16.1	2.3	1.3	3.6
12/1	972	972	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

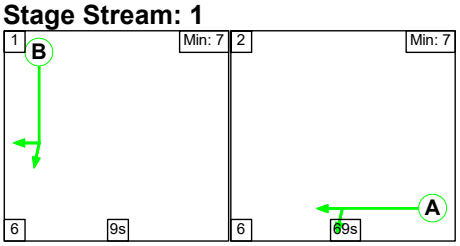
C1	Stream: 1 PRC for Signalled Lanes (%):	20.5	Total Delay for Signalled Lanes (pcuHr):	10.60	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	53.28	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	-2.3	Total Delay for Signalled Lanes (pcuHr):	32.40	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	450.4	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s):	90
	PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	97.63		

Full Input Data And Results

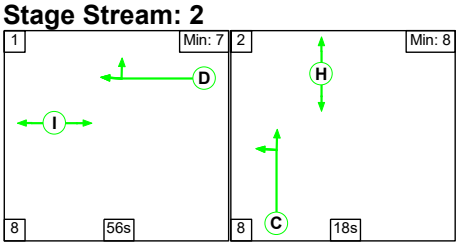
Scenario 8: '2033 PM Total - Scenario 2' (FG18: '2033 PM Total - Scenario 2', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

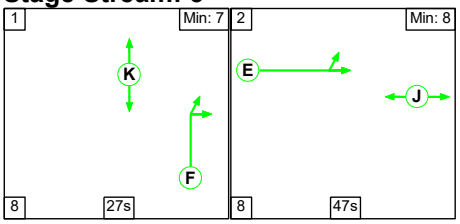
Stage Stream: 1



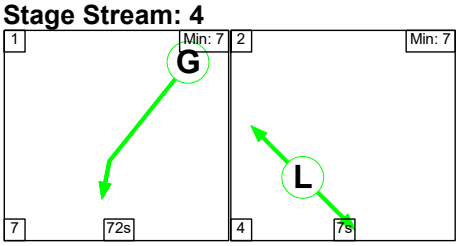
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	4	68

Stage Stream: 3

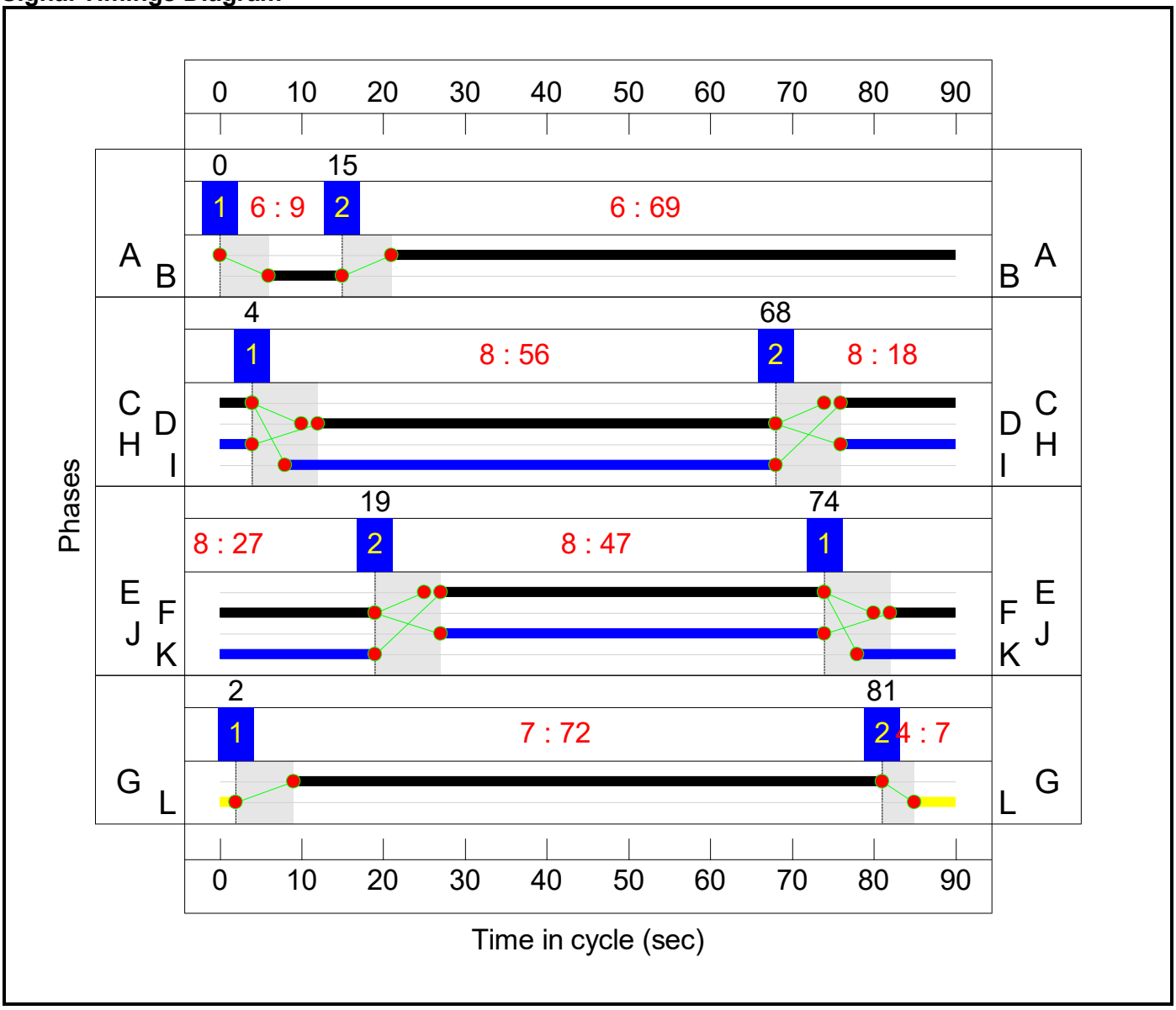
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

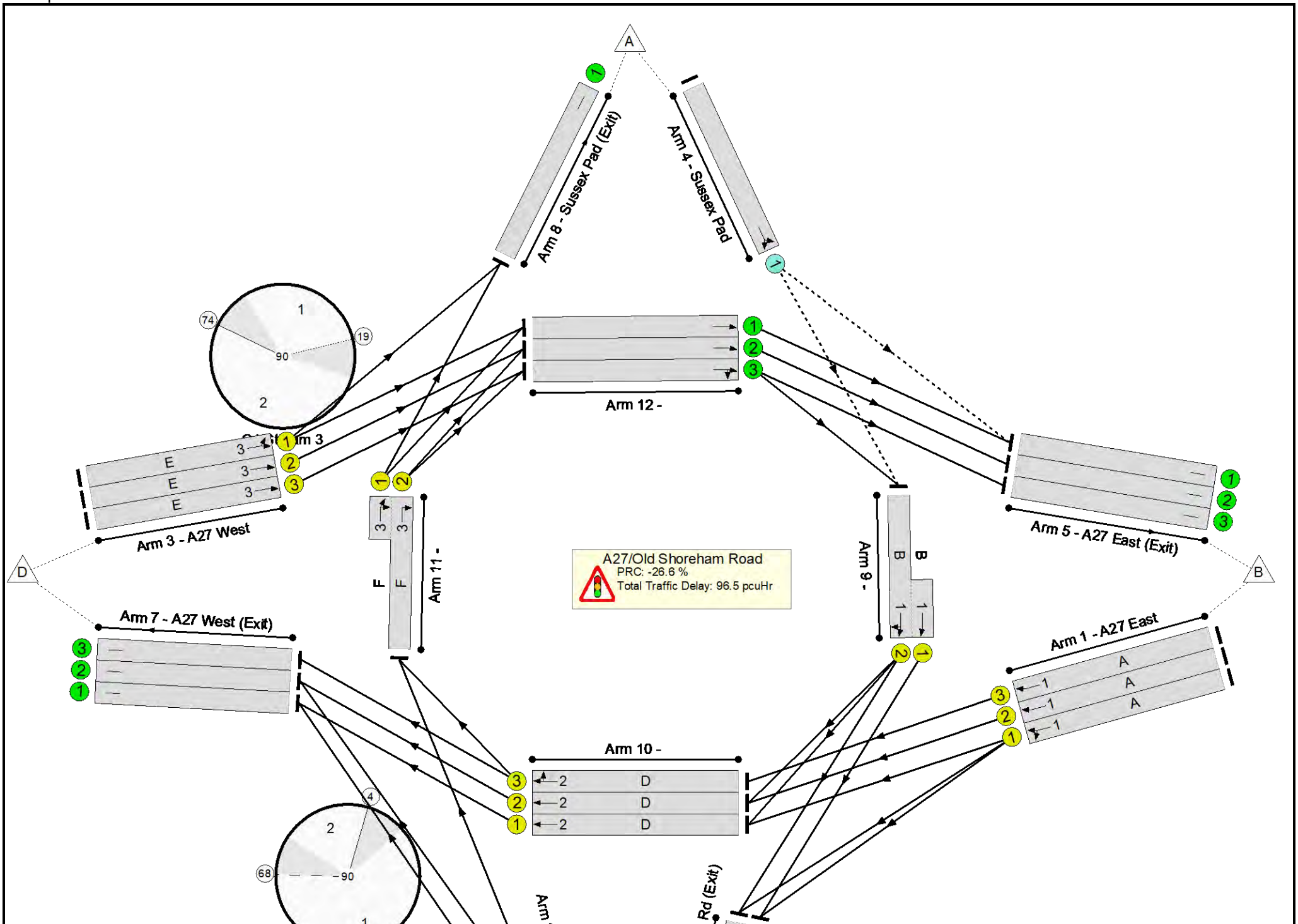
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1107	1900	1478	74.9%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	949	1900	1478	64.2%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	949	1900	1478	64.2%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	925	1900	1013	91.3%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	925	1900	1013	91.3%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	926	1900	1013	91.4%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	327	44.9%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1042	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1107	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	252	1900	1541	16.4%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	238	1900	1541	15.4%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1128	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	949	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	876	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+143	70.7 : 70.7%
10/1	Ahead	U	2	N/A	D		1	56	-	848	1900	1203	70.5%
10/2	Ahead	U	2	N/A	D		1	56	-	949	1900	1203	78.9%
10/3	Ahead Right	U	2	N/A	D		1	56	-	949	1900	1203	78.9%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	439+200	72.8 : 77.2%
12/1	Ahead	U	N/A	N/A	-		-	-	-	957	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1107	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**38.3**	**58.3**	**0.0**	**96.5**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**38.3**	**58.3**	**0.0**	**96.5**	**-**	**-**	**-**	**-**
1/1	1107	1107	-	-	-	1.6	1.5	-	3.1	10.1	14.5	1.5	15.9
1/2	949	949	-	-	-	1.2	0.9	-	2.1	7.8	10.3	0.9	11.2
1/3	949	949	-	-	-	1.2	0.9	-	2.1	7.8	10.3	0.9	11.2
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.2	31.6	-	38.8	305.5	13.5	31.6	45.0
3/1	925	925	-	-	-	4.9	4.7	-	9.6	37.5	20.8	4.7	25.5
3/2	925	925	-	-	-	4.9	4.7	-	9.6	37.5	20.8	4.7	25.5
3/3	926	926	-	-	-	4.9	4.8	-	9.7	37.7	20.8	4.8	25.6
4/1	147	147	147	0	0	0.6	0.4	-	1.0	24.9	2.4	0.4	2.8
5/1	1031	1031	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1085	1085	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	238	238	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1128	1128	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	949	949	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	876	876	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.4	53.0	3.2	1.2	4.4
10/1	848	848	-	-	-	1.8	1.2	-	3.0	12.8	7.7	1.2	8.8
10/2	949	949	-	-	-	2.1	1.8	-	3.9	14.9	7.4	1.8	9.3
10/3	949	949	-	-	-	2.1	1.8	-	3.9	14.9	7.4	1.8	9.3
11/2+11/1	474	474	-	-	-	0.8	1.4	-	2.2	16.7	2.2	1.4	3.6
12/1	946	946	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1085	1085	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1086	1086	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

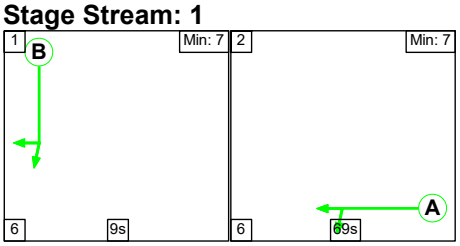
C1	Stream: 1 PRC for Signalled Lanes (%):	20.1	Total Delay for Signalled Lanes (pcuHr):	10.65	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	53.35	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	-1.5	Total Delay for Signalled Lanes (pcuHr):	31.17	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	450.4	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s): 90
	PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	96.52	

Full Input Data And Results

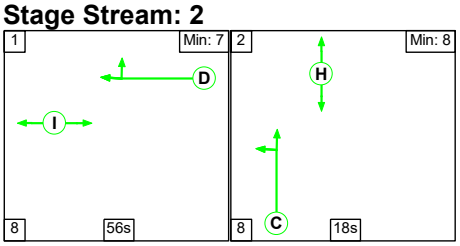
Scenario 9: '2033 PM Total - Scenario 3' (FG19: '2033 PM Total - Scenario 3', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

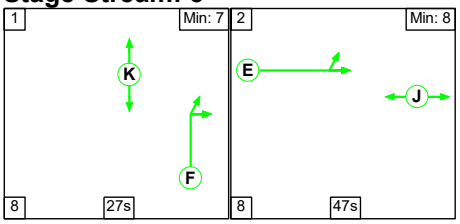
Stage Stream: 1



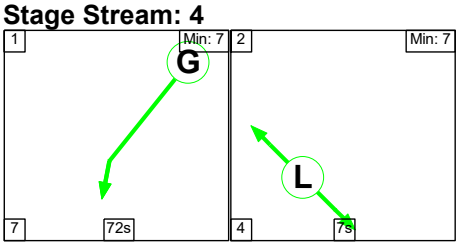
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	4	68

Stage Stream: 3

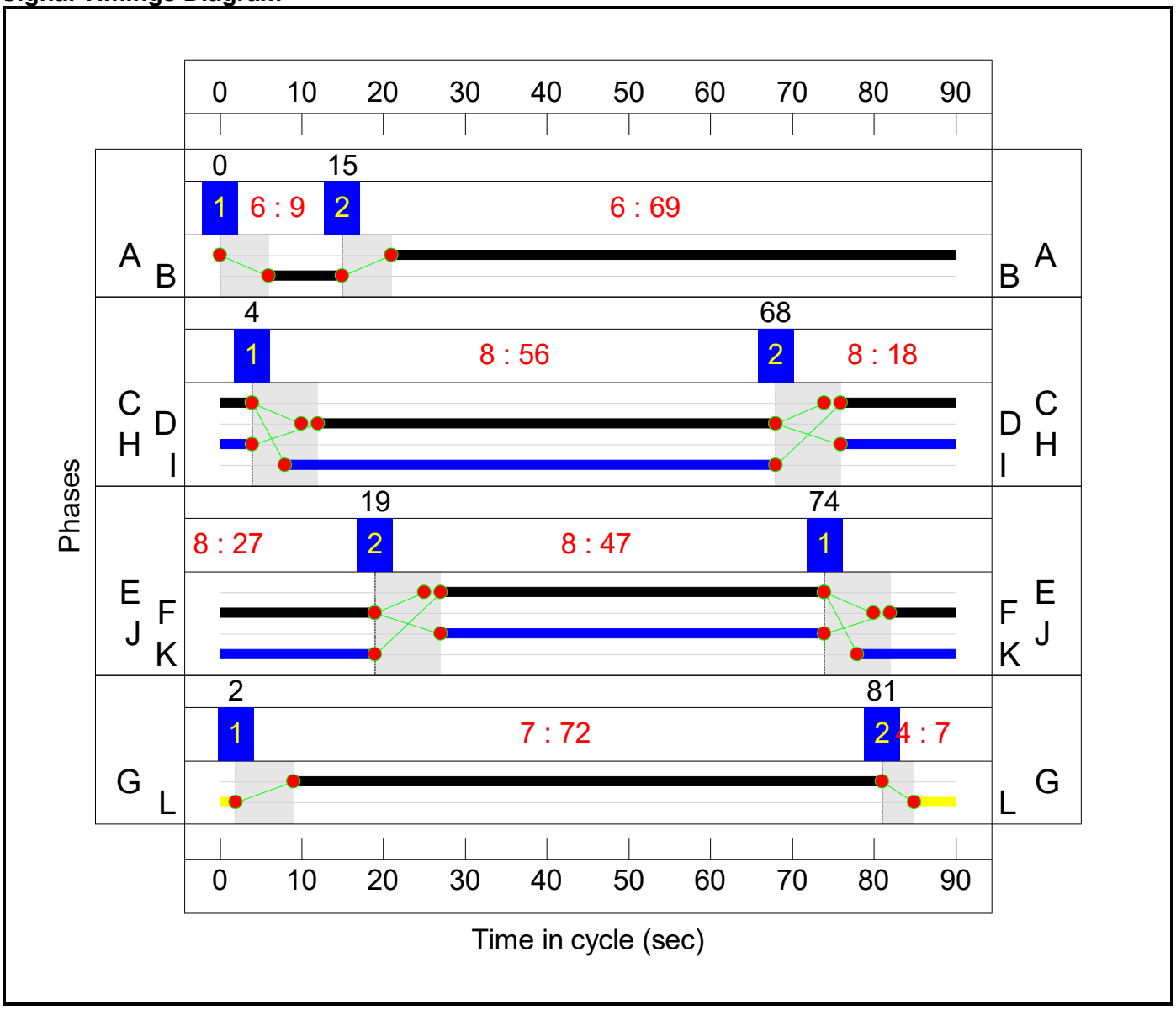
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

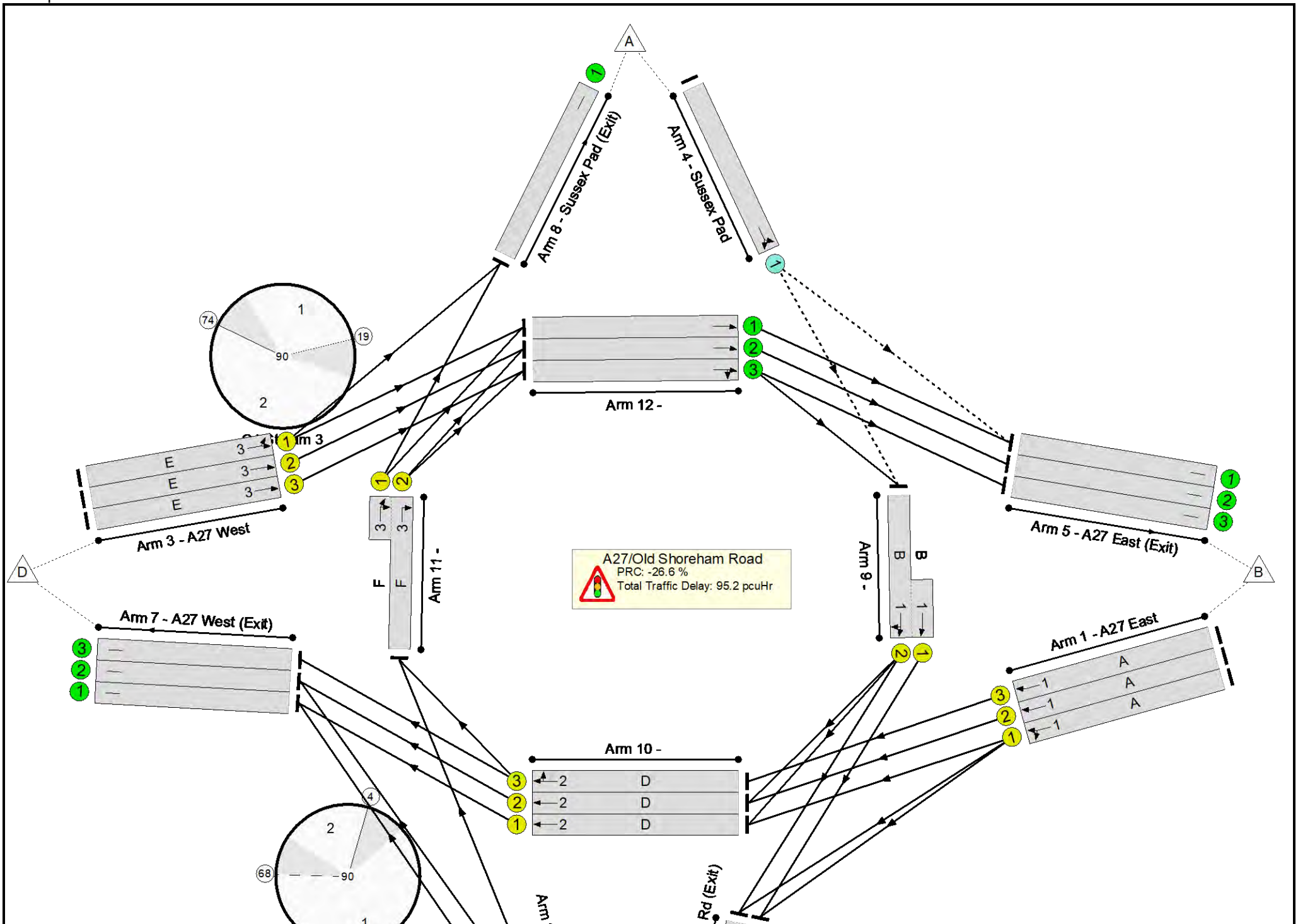
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1086	1900	1478	73.5%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	930	1900	1478	62.9%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	930	1900	1478	62.9%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	923	1900	1013	91.1%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	923	1900	1013	91.1%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	923	1900	1013	91.1%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	328	44.9%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1039	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	937	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	252	1900	1541	16.4%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	238	1900	1541	15.4%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1107	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	930	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+143	70.7 : 70.7%
10/1	Ahead	U	2	N/A	D		1	56	-	827	1900	1203	68.7%
10/2	Ahead	U	2	N/A	D		1	56	-	930	1900	1203	77.3%
10/3	Ahead Right	U	2	N/A	D		1	56	-	930	1900	1203	77.3%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	440+199	72.8 : 77.3%
12/1	Ahead	U	N/A	N/A	-		-	-	-	954	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1106	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**37.9**	**57.3**	**0.0**	**95.2**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**37.9**	**57.3**	**0.0**	**95.2**	**-**	**-**	**-**	**-**
1/1	1086	1086	-	-	-	1.6	1.4	-	2.9	9.8	13.9	1.4	15.3
1/2	930	930	-	-	-	1.1	0.8	-	2.0	7.6	10.1	0.8	10.9
1/3	930	930	-	-	-	1.1	0.8	-	2.0	7.6	10.1	0.8	10.9
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.2	31.6	-	38.8	305.5	13.5	31.6	45.0
3/1	923	923	-	-	-	4.9	4.6	-	9.5	37.1	20.8	4.6	25.4
3/2	923	923	-	-	-	4.9	4.6	-	9.5	37.1	20.8	4.6	25.4
3/3	923	923	-	-	-	4.9	4.6	-	9.5	37.1	20.8	4.6	25.4
4/1	147	147	147	0	0	0.6	0.4	-	1.0	24.8	2.4	0.4	2.8
5/1	1028	1028	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	238	238	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1107	1107	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	930	930	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.4	53.1	3.2	1.2	4.4
10/1	827	827	-	-	-	1.8	1.1	-	2.9	12.4	7.5	1.1	8.6
10/2	930	930	-	-	-	2.0	1.7	-	3.7	14.4	7.1	1.7	8.8
10/3	930	930	-	-	-	2.0	1.7	-	3.7	14.4	7.1	1.7	8.8
11/2+11/1	474	474	-	-	-	0.8	1.4	-	2.2	16.7	2.2	1.4	3.6
12/1	943	943	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1084	1084	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

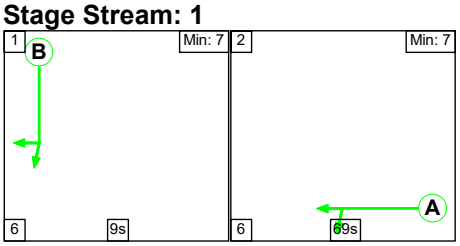
C1	Stream: 1 PRC for Signalled Lanes (%):	22.5	Total Delay for Signalled Lanes (pcuHr):	10.29	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	52.77	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	-1.2	Total Delay for Signalled Lanes (pcuHr):	30.77	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	450.4	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s):	90
	PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	95.17		

Full Input Data And Results

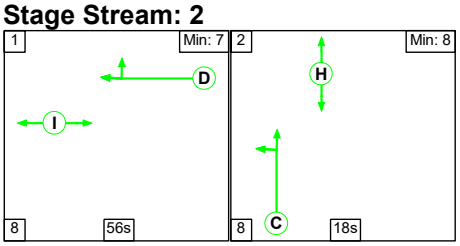
Scenario 10: '2033 PM Total - Scenario 4' (FG20: '2033 PM Total - Scenario 4', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

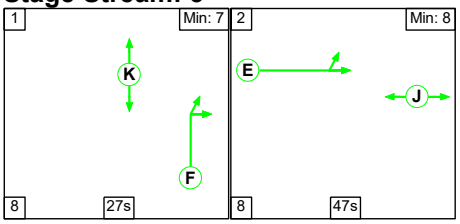
Stage Stream: 1



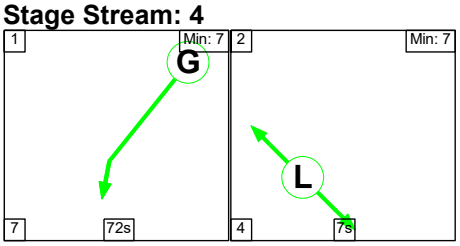
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	4	68

Stage Stream: 3

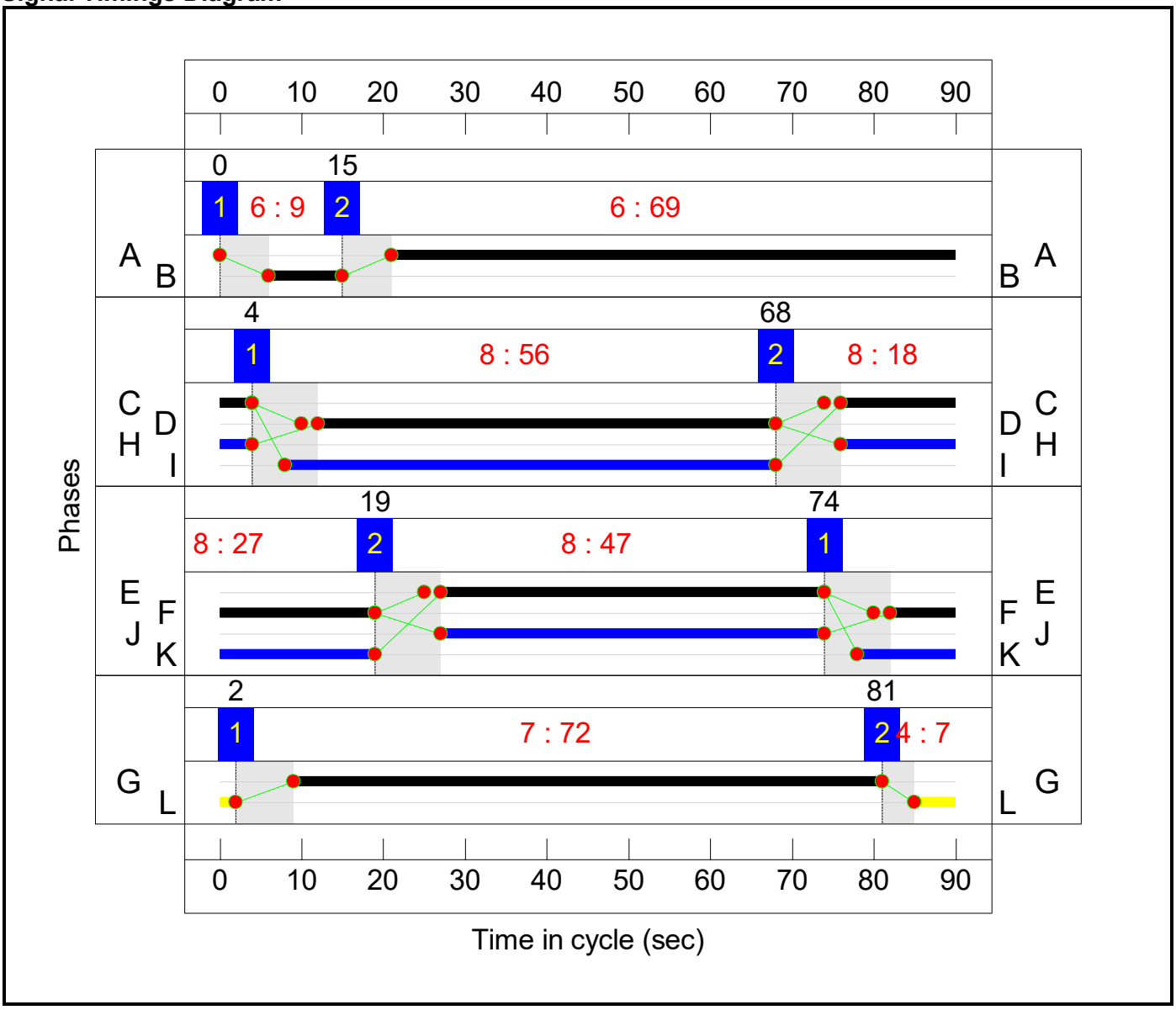
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

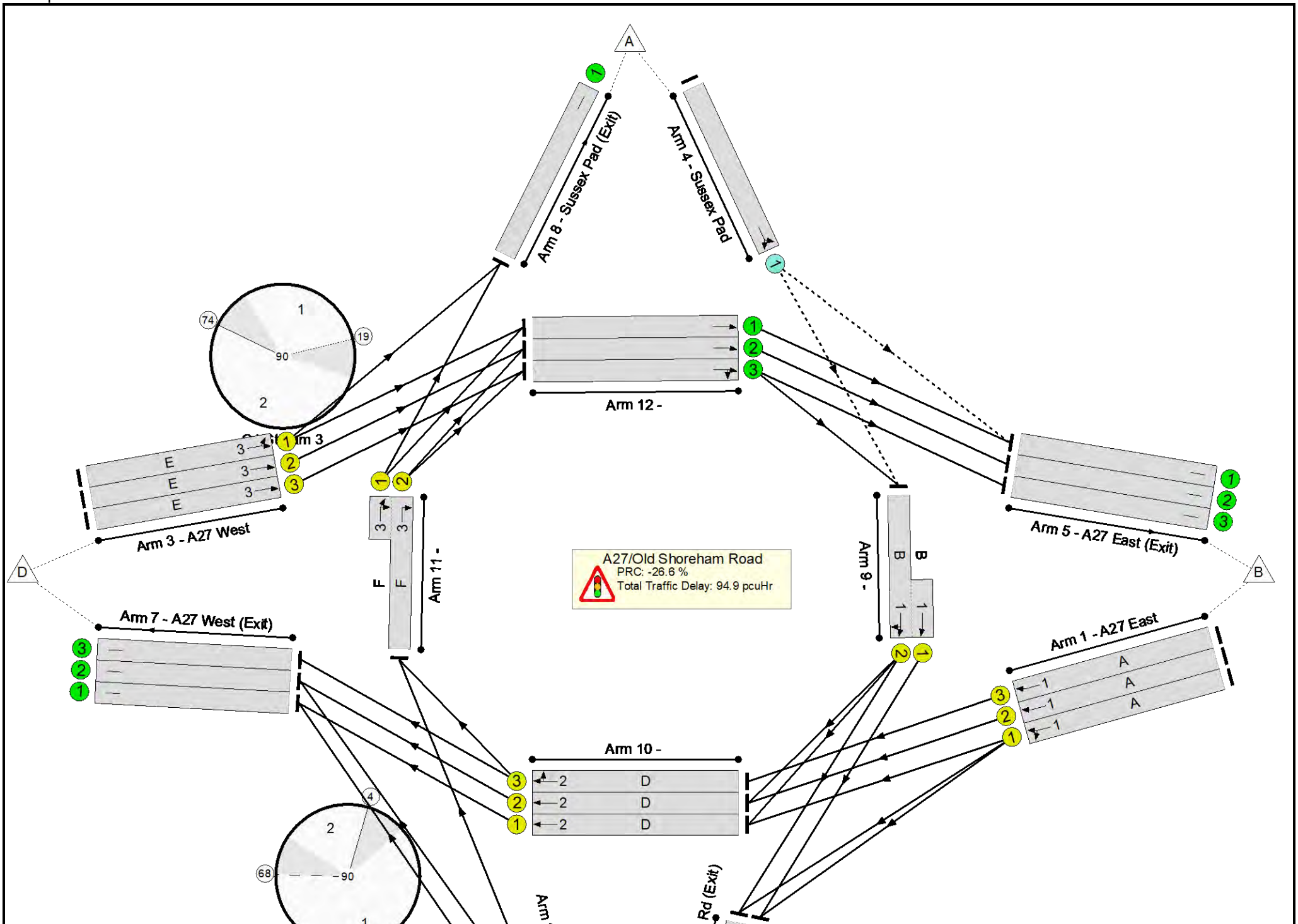
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1092	1900	1478	73.9%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	933	1900	1478	63.1%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	934	1900	1478	63.2%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	920	1900	1013	90.8%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	920	1900	1013	90.8%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	920	1900	1013	90.8%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	328	44.8%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1038	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1101	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	252	1900	1541	16.4%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	238	1900	1541	15.4%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1113	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	861	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+143	70.7 : 70.7%
10/1	Ahead	U	2	N/A	D		1	56	-	833	1900	1203	69.2%
10/2	Ahead	U	2	N/A	D		1	56	-	933	1900	1203	77.5%
10/3	Ahead Right	U	2	N/A	D		1	56	-	934	1900	1203	77.6%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	438+202	72.7 : 77.2%
12/1	Ahead	U	N/A	N/A	-		-	-	-	953	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1101	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1102	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**37.8**	**57.0**	**0.0**	**94.9**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**37.8**	**57.0**	**0.0**	**94.9**	**-**	**-**	**-**	**-**
1/1	1092	1092	-	-	-	1.6	1.4	-	3.0	9.9	14.3	1.4	15.7
1/2	933	933	-	-	-	1.1	0.9	-	2.0	7.7	10.1	0.9	11.0
1/3	934	934	-	-	-	1.1	0.9	-	2.0	7.7	10.1	0.9	11.0
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.2	31.6	-	38.8	305.5	13.5	31.6	45.0
3/1	920	920	-	-	-	4.9	4.5	-	9.4	36.6	20.7	4.5	25.2
3/2	920	920	-	-	-	4.9	4.5	-	9.4	36.6	20.7	4.5	25.2
3/3	920	920	-	-	-	4.9	4.5	-	9.4	36.6	20.7	4.5	25.2
4/1	147	147	147	0	0	0.6	0.4	-	1.0	24.8	2.4	0.4	2.8
5/1	1027	1027	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1079	1079	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	911	911	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	238	238	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1113	1113	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	933	933	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	861	861	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.4	53.1	3.2	1.2	4.4
10/1	833	833	-	-	-	1.8	1.1	-	2.9	12.5	7.5	1.1	8.7
10/2	933	933	-	-	-	2.0	1.7	-	3.8	14.5	7.1	1.7	8.8
10/3	934	934	-	-	-	2.1	1.7	-	3.8	14.5	7.1	1.7	8.8
11/2+11/1	474	474	-	-	-	0.8	1.4	-	2.2	16.7	2.2	1.4	3.6
12/1	942	942	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

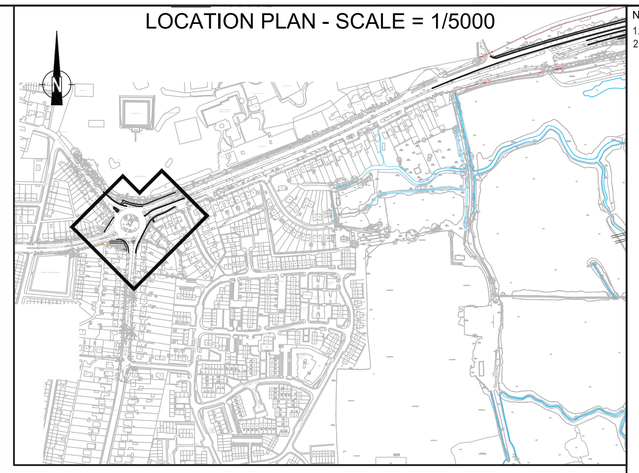
12/2	1079	1079	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1080	1080	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	21.8	Total Delay for Signalled Lanes (pcuHr):	10.37	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	52.89	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	-0.9	Total Delay for Signalled Lanes (pcuHr):	30.25	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	450.4	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s): 90
	PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	94.86	

9.0 Junction 11 – A27 / A2025 (Lancing Manor) Roundabout

9.1 Committed Junction Arrangement
9.2 Output: 2033 Baseline Scenario
9.3 ARCADY Outputs: Proposed Development Scenarios
9.4 Proposed Junction Improvements
9.5 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
9.6 Budget Cost Estimate for Off-Site Highway Works: Committed Junction Improvements
9.7 Budget Cost-Estimate for Off-Site Highway Works: ADL Proposed Junction Improvements

LOCATION PLAN - SCALE = 1/5000



Notes:
1.
2.

A27 UPPER BRIGHTON ROAD

A27 OLD SHOREHAM ROAD

A2025 GRINSTEAD LANE

MANOR ROAD

DRAFT

REV.	DETAILS	DRAWN	CHECKED	DATE
D	Changes to RSA1 Design Response recommendations	DLB	MS	19-03-18
C	Changes to RSA1 recommendations	DLB	CH	6-03-18
B	Changes to HE comments	DLB	CH	25-01-18
A	Manor Rd entry flare widened for 3rd lane	DLB	CH	13-12-17

CLIENT:

New Monks Farm Development

PROJECT:

New Monks Farm, Lancing

DRAWING TITLE:

A27 / Grinstead Lane
Junction Improvements

SCALES:

1:250 at A1

DRAWN:	CHECKED:	DATE:
DB	PW	Nov.2016

APPENDIX 9.1
COMMITTED JUNCTION
ARRANGEMENT

vectos
transport planning specialists

4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ
0161 228 1008 e: manchester@vectos.co.uk

DRAWING NUMBER: VN40408/PL-010

REVISION: D

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Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 10 - A - A27-Grinstead Ln- Comm Jct - 2033 base incl permitted.j9
Path: D:\5201 Shoreham\Amol\10 - A27 + Grinstead Lane
Report generation date: 11/11/2021 16:54:41

»2033 Base incl permitted, AM
»2033 Base incl permitted, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Base incl permitted													
1 - A27 East	337.8	505.90	1.25	F	854.86	F	-34 % [2 - A2025 Grinstead Ln]	446.1	648.62	1.30	F	675.41	F	-28 % [3 - A27 West]
2 - A2025 Grinstead Ln	540.9	2124.63	1.72	F				7.2	36.44	0.89	E			
3 - A27 West	361.6	634.27	1.29	F				511.8	968.59	1.45	F			
4 - Manor Road	22.9	176.09	1.06	F				1.1	16.43	0.53	C			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

APPENDIX 9.2
OUTPUT: 2033 BASELINE SCENARIO

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base incl permitted	AM	ONE HOUR	07:45	09:15	15	✓
D2	2033 Base incl permitted	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base incl permitted, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	854.86	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-34	2 - A2025 Grinstead Ln

Arms

Arms

Arm	Name	Description
1	A27 East	
2	A2025 Grinstead Ln	
3	A27 West	
4	Manor Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 East	7.20	9.80	25.0	15.1	54.0	40.0	
2 - A2025 Grinstead Ln	5.80	11.50	10.0	12.6	54.0	48.0	
3 - A27 West	5.60	11.50	17.0	30.5	54.0	44.0	
4 - Manor Road	4.10	7.40	40.0	30.6	54.0	22.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 East	0.746	2632
2 - A2025 Grinstead Ln	0.647	2153
3 - A27 West	0.721	2463
4 - Manor Road	0.680	2124

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base incl permitted	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2689	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1381	100.000
3 - A27 West		ONE HOUR	✓	2329	100.000
4 - Manor Road		ONE HOUR	✓	421	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	648	1931	110
	2 - A2025 Grinstead Ln	621	0	694	66
	3 - A27 West	2190	138	0	1
	4 - Manor Road	306	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.25	505.90	337.8	F	2467	3701
2 - A2025 Grinstead Ln	1.72	2124.63	540.9	F	1267	1901
3 - A27 West	1.29	634.27	361.6	F	2137	3206
4 - Manor Road	1.06	176.09	22.9	F	386	579

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2024	506	187	2403	0.842	2004	2294	0.0	5.0	8.638	A
2 - A2025 Grinstead Ln	1040	260	1567	1075	0.967	992	624	0.0	11.9	33.428	D
3 - A27 West	1753	438	578	1956	0.896	1724	1981	0.0	7.4	14.051	B
4 - Manor Road	317	79	2169	587	0.540	312	133	0.0	1.1	12.931	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2417	604	216	2382	1.015	2319	2508	5.0	29.6	35.095	E
2 - A2025 Grinstead Ln	1241	310	1814	913	1.359	911	721	11.9	94.5	222.478	F
3 - A27 West	2094	523	552	1976	1.060	1948	2174	7.4	43.8	56.578	F
4 - Manor Road	378	95	2357	455	0.831	367	143	1.1	3.9	37.060	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2961	740	232	2370	1.249	2368	2568	29.6	177.6	162.692	F
2 - A2025 Grinstead Ln	1521	380	1860	884	1.720	884	741	94.5	253.6	715.772	F
3 - A27 West	2564	641	541	1984	1.292	1983	2203	43.8	189.1	216.695	F
4 - Manor Road	464	116	2380	439	1.055	420	144	3.9	14.8	101.658	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2961	740	235	2368	1.250	2368	2576	177.6	325.8	385.771	F
2 - A2025 Grinstead Ln	1521	380	1861	883	1.722	883	742	253.6	413.0	1364.012	F
3 - A27 West	2564	641	540	1984	1.292	1984	2204	189.1	334.1	478.163	F
4 - Manor Road	464	116	2380	439	1.056	431	144	14.8	22.9	176.088	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2417	604	233	2370	1.020	2369	2570	325.8	337.8	505.896	F
2 - A2025 Grinstead Ln	1241	310	1860	883	1.405	883	742	413.0	502.5	1867.449	F
3 - A27 West	2094	523	540	1984	1.055	1984	2203	334.1	361.6	634.274	F
4 - Manor Road	378	95	2380	439	0.862	422	144	22.9	11.9	157.679	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2024	506	214	2384	0.849	2377	2515	337.8	249.7	445.385	F
2 - A2025 Grinstead Ln	1040	260	1856	886	1.173	886	734	502.5	540.9	2124.635	F
3 - A27 West	1753	438	541	1984	0.884	1978	2201	361.6	305.4	607.237	F
4 - Manor Road	317	79	2376	442	0.717	353	144	11.9	2.9	50.439	F

2033 Base incl permitted, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	675.41	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base incl permitted	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2810	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	692	100.000
3 - A27 West		ONE HOUR	✓	2258	100.000
4 - Manor Road		ONE HOUR	✓	228	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	634	1931	245
	2 - A2025 Grinstead Ln	582	0	38	72
	3 - A27 West	2080	162	0	16
	4 - Manor Road	129	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.30	648.62	446.1	F	2579	3868
2 - A2025 Grinstead Ln	0.89	36.44	7.2	E	635	952
3 - A27 West	1.45	968.59	511.8	F	2072	3108
4 - Manor Road	0.53	16.43	1.1	C	209	314

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2116	529	194	2401	0.881	2089	2069	0.0	6.7	10.745	B
2 - A2025 Grinstead Ln	521	130	1658	1006	0.518	517	625	0.0	1.1	7.293	A
3 - A27 West	1700	425	671	1893	0.898	1670	1503	0.0	7.5	14.621	B
4 - Manor Road	172	43	2093	640	0.268	170	248	0.0	0.4	7.633	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2526	632	217	2384	1.060	2353	2287	6.7	50.0	51.599	F
2 - A2025 Grinstead Ln	622	156	1870	869	0.716	617	700	1.1	2.4	14.000	B
3 - A27 West	2030	507	789	1808	1.122	1794	1698	7.5	66.4	83.327	F
4 - Manor Road	205	51	2300	495	0.414	204	283	0.4	0.7	12.297	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3094	773	232	2374	1.303	2373	2352	50.0	230.2	217.024	F
2 - A2025 Grinstead Ln	762	190	1897	852	0.894	746	708	2.4	6.5	30.063	D
3 - A27 West	2486	622	913	1719	1.446	1719	1729	66.4	258.1	345.035	F
4 - Manor Road	251	63	2334	471	0.532	249	298	0.7	1.1	16.091	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3094	773	232	2374	1.303	2373	2356	230.2	410.3	487.997	F
2 - A2025 Grinstead Ln	762	190	1897	851	0.895	759	708	6.5	7.2	36.444	E
3 - A27 West	2486	622	925	1710	1.454	1710	1731	258.1	452.0	735.034	F
4 - Manor Road	251	63	2336	470	0.534	251	299	1.1	1.1	16.434	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2526	632	218	2383	1.060	2383	2305	410.3	446.1	648.624	F
2 - A2025 Grinstead Ln	622	156	1894	853	0.729	640	707	7.2	2.9	18.051	C
3 - A27 West	2030	507	813	1791	1.133	1791	1721	452.0	511.8	968.592	F
4 - Manor Road	205	51	2316	484	0.423	206	288	1.1	0.8	13.042	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2116	529	209	2390	0.885	2385	2258	446.1	378.7	622.729	F
2 - A2025 Grinstead Ln	521	130	1888	857	0.608	526	706	2.9	1.6	11.030	B
3 - A27 West	1700	425	706	1868	0.910	1865	1708	511.8	470.6	948.436	F
4 - Manor Road	172	43	2294	500	0.343	173	277	0.8	0.5	11.033	B

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 10 - B - A27-Grinstead Ln- Comm Jct - 2033 Total.j9
Path: D:\5201 Shoreham\Amol\10 - A27 + Grinstead Lane
Report generation date: 11/11/2021 17:00:37

»2033 Total - Scenario 1, AM
»2033 Total - Scenario 1, PM
»2033 Total - Scenario 2, AM
»2033 Total - Scenario 2, PM
»2033 Total - Scenario 3, AM
»2033 Total - Scenario 3, PM
»2033 Total - Scenario 4, AM
»2033 Total - Scenario 4, PM

APPENDIX 9.3
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Total - Scenario 1													
1 - A27 East	402.5	537.67	1.17	F	807.96	F	-29 % [2 - A2025 Grinstead Ln]	537.7	714.76	1.22	F	711.36	F	-23 % [3 - A27 West]
2 - A2025 Grinstead Ln	513.3	1819.80	1.58	F				4.5	23.58	0.83	C			
3 - A27 West	405.3	650.94	1.20	F				545.7	989.01	1.31	F			
4 - Manor Road	14.1	126.40	0.97	F				1.0	14.96	0.49	B			
	2033 Total - Scenario 2													
1 - A27 East	387.9	518.35	1.16	F	797.35	F	-29 % [2 - A2025 Grinstead Ln]	545.4	725.11	1.23	F	703.79	F	-23 % [3 - A27 West]
2 - A2025 Grinstead Ln	510.9	1812.40	1.58	F				4.3	22.35	0.82	C			
3 - A27 West	402.6	646.12	1.20	F				528.1	954.69	1.30	F			
4 - Manor Road	14.2	127.16	0.97	F				0.9	14.75	0.48	B			
	2033 Total - Scenario 3													
1 - A27 East	363.7	486.66	1.15	F	764.13	F	-28 % [2 - A2025 Grinstead Ln]	486.1	646.96	1.20	F	663.98	F	-22 % [3 - A27 West]
2 - A2025 Grinstead Ln	503.9	1796.01	1.57	F				4.3	22.89	0.82	C			
3 - A27 West	372.0	596.34	1.19	F				524.0	946.66	1.30	F			
4 - Manor Road	13.1	118.76	0.96	F				0.9	14.68	0.48	B			
	2033 Total - Scenario 4													
1 - A27 East	354.6	474.47	1.15	F	783.94	F	-29 % [2 - A2025 Grinstead Ln]	500.5	666.01	1.21	F	665.77	F	-22 % [3 - A27 West]
2 - A2025 Grinstead Ln	513.8	1831.61	1.58	F				4.1	21.89	0.81	C			
3 - A27 West	400.9	642.64	1.20	F				514.4	926.98	1.29	F			
4 - Manor Road	14.3	128.03	0.97	F				0.9	14.65	0.48	B			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	FLAT	08:00	09:00	60	15			
D2	2033 Base minus permitted	PM	FLAT	17:00	18:00	60	15			
D3	Scenario 1	AM	FLAT	08:00	09:00	60	15			
D4	Scenario 1	PM	FLAT	17:00	18:00	60	15			
D5	Scenario 2	AM	FLAT	08:00	09:00	60	15			
D6	Scenario 2	PM	FLAT	17:00	18:00	60	15			
D7	Scenario 3	AM	FLAT	08:00	09:00	60	15			
D8	Scenario 3	PM	FLAT	17:00	18:00	60	15			
D9	Scenario 4	AM	FLAT	08:00	09:00	60	15			
D10	Scenario 4	PM	FLAT	17:00	18:00	60	15			
D11	2033 Total - Scenario 1	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1 + D3
D12	2033 Total - Scenario 1	PM	FLAT	17:00	18:00	60	15	✓	Simple	D2 + D4
D13	2033 Total - Scenario 2	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1 + D5
D14	2033 Total - Scenario 2	PM	FLAT	17:00	18:00	60	15	✓	Simple	D2 + D6
D15	2033 Total - Scenario 3	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1 + D7
D16	2033 Total - Scenario 3	PM	FLAT	17:00	18:00	60	15	✓	Simple	D2 + D8
D17	2033 Total - Scenario 4	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1 + D9
D18	2033 Total - Scenario 4	PM	FLAT	17:00	18:00	60	15	✓	Simple	D2 + D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Total - Scenario 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	807.96	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	2 - A2025 Grinstead Ln

Arms

Arms

Arm	Name	Description
1	A27 East	
2	A2025 Grinstead Ln	
3	A27 West	
4	Manor Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 East	7.20	9.80	25.0	15.1	54.0	40.0	
2 - A2025 Grinstead Ln	5.80	11.50	10.0	12.6	54.0	48.0	
3 - A27 West	5.60	11.50	17.0	30.5	54.0	44.0	
4 - Manor Road	4.10	7.40	40.0	30.6	54.0	22.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 East	0.746	2632
2 - A2025 Grinstead Ln	0.647	2153
3 - A27 West	0.721	2463
4 - Manor Road	0.680	2124

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2033 Total - Scenario 1	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1 + D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2772	100.000
2 - A2025 Grinstead Ln		FLAT	✓	1405	100.000
3 - A27 West		FLAT	✓	2374	100.000
4 - Manor Road		FLAT	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	684	1971	117
	2 - A2025 Grinstead Ln	645	0	694	66
	3 - A27 West	2235	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.17	537.67	402.5	F	2772	2772
2 - A2025 Grinstead Ln	1.58	1819.80	513.3	F	1405	1405
3 - A27 West	1.20	650.94	405.3	F	2374	2374
4 - Manor Road	0.97	126.40	14.1	F	424	424

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2772	693	221	2379	1.165	2356	2539	0.0	103.9	83.991	F
2 - A2025 Grinstead Ln	1405	351	1833	901	1.559	894	744	0.0	127.7	263.367	F
3 - A27 West	2374	594	556	1973	1.203	1954	2171	0.0	104.9	101.348	F
4 - Manor Road	424	106	2364	450	0.942	395	146	0.0	7.2	51.627	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2772	693	226	2375	1.167	2374	2566	103.9	203.3	237.156	F
2 - A2025 Grinstead Ln	1405	351	1849	891	1.577	891	752	127.7	256.2	781.864	F
3 - A27 West	2374	594	555	1974	1.203	1973	2185	104.9	205.1	287.237	F
4 - Manor Road	424	106	2381	438	0.968	411	147	7.2	10.5	92.770	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2772	693	227	2374	1.168	2374	2570	203.3	302.9	387.066	F
2 - A2025 Grinstead Ln	1405	351	1849	891	1.577	891	752	256.2	384.7	1300.545	F
3 - A27 West	2374	594	555	1974	1.203	1974	2185	205.1	305.2	468.859	F
4 - Manor Road	424	106	2382	438	0.968	416	147	10.5	12.5	112.733	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2772	693	228	2374	1.168	2374	2572	302.9	402.5	537.668	F
2 - A2025 Grinstead Ln	1405	351	1849	891	1.577	891	753	384.7	513.3	1819.801	F
3 - A27 West	2374	594	555	1974	1.203	1974	2185	305.2	405.3	650.944	F
4 - Manor Road	424	106	2382	438	0.968	418	147	12.5	14.1	126.396	F

2033 Total - Scenario 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	711.36	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	2033 Total - Scenario 1	PM	FLAT	17:00	18:00	60	15	✓	Simple	D2 + D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2914	100.000
2 - A2025 Grinstead Ln		FLAT	✓	713	100.000
3 - A27 West		FLAT	✓	2289	100.000
4 - Manor Road		FLAT	✓	231	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	682	1983	249
	2 - A2025 Grinstead Ln	603	0	38	72
	3 - A27 West	2111	162	0	16
	4 - Manor Road	132	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.22	714.76	537.7	F	2914	2914
2 - A2025 Grinstead Ln	0.83	23.58	4.5	C	713	713
3 - A27 West	1.31	989.01	545.7	F	2289	2289
4 - Manor Road	0.49	14.96	1.0	B	231	231

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2914	728	221	2382	1.224	2364	2326	0.0	137.4	108.394	F
2 - A2025 Grinstead Ln	713	178	1864	873	0.817	697	721	0.0	4.0	19.089	C
3 - A27 West	2289	572	863	1755	1.304	1742	1698	0.0	136.7	145.530	F
4 - Manor Road	231	58	2320	482	0.480	227	286	0.0	0.9	13.981	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2914	728	222	2380	1.224	2380	2342	137.4	270.9	312.354	F
2 - A2025 Grinstead Ln	713	178	1877	864	0.825	711	725	4.0	4.4	23.100	C
3 - A27 West	2289	572	878	1744	1.312	1744	1711	136.7	272.9	426.935	F
4 - Manor Road	231	58	2334	472	0.490	231	288	0.9	0.9	14.923	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2914	728	222	2380	1.224	2380	2342	270.9	404.3	513.358	F
2 - A2025 Grinstead Ln	713	178	1877	864	0.825	713	725	4.4	4.5	23.467	C
3 - A27 West	2289	572	879	1744	1.313	1744	1711	272.9	409.3	707.685	F
4 - Manor Road	231	58	2334	472	0.490	231	289	0.9	0.9	14.955	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2914	728	222	2380	1.224	2380	2343	404.3	537.7	714.764	F
2 - A2025 Grinstead Ln	713	178	1877	864	0.825	713	725	4.5	4.5	23.585	C
3 - A27 West	2289	572	879	1743	1.313	1743	1711	409.3	545.7	989.006	F
4 - Manor Road	231	58	2334	472	0.490	231	289	0.9	1.0	14.961	B

2033 Total - Scenario 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	797.35	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	2033 Total - Scenario 2	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1 + D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2757	100.000
2 - A2025 Grinstead Ln		FLAT	✓	1402	100.000
3 - A27 West		FLAT	✓	2373	100.000
4 - Manor Road		FLAT	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	679	1963	115
	2 - A2025 Grinstead Ln	642	0	694	66
	3 - A27 West	2234	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.16	518.35	387.9	F	2757	2757
2 - A2025 Grinstead Ln	1.58	1812.40	510.9	F	1402	1402
3 - A27 West	1.20	646.12	402.6	F	2373	2373
4 - Manor Road	0.97	127.16	14.2	F	424	424

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2757	689	221	2379	1.159	2355	2539	0.0	100.4	81.436	F
2 - A2025 Grinstead Ln	1402	350	1833	901	1.556	894	743	0.0	127.0	262.137	F
3 - A27 West	2373	593	553	1975	1.202	1956	2174	0.0	104.3	100.713	F
4 - Manor Road	424	106	2365	450	0.943	395	145	0.0	7.2	51.740	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2757	689	226	2375	1.161	2374	2566	100.4	196.1	229.115	F
2 - A2025 Grinstead Ln	1402	350	1850	890	1.575	890	751	127.0	254.9	778.486	F
3 - A27 West	2373	593	552	1975	1.201	1975	2187	104.3	203.8	285.237	F
4 - Manor Road	424	106	2382	438	0.968	411	146	7.2	10.5	93.132	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2757	689	228	2374	1.161	2374	2570	196.1	292.0	373.387	F
2 - A2025 Grinstead Ln	1402	350	1850	890	1.575	890	751	254.9	382.9	1295.149	F
3 - A27 West	2373	593	552	1976	1.201	1975	2188	203.8	303.2	465.446	F
4 - Manor Road	424	106	2382	438	0.969	416	146	10.5	12.6	113.313	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2757	689	228	2374	1.162	2373	2572	292.0	387.9	518.353	F
2 - A2025 Grinstead Ln	1402	350	1850	890	1.575	890	752	382.9	510.9	1812.399	F
3 - A27 West	2373	593	552	1976	1.201	1975	2188	303.2	402.6	646.119	F
4 - Manor Road	424	106	2382	438	0.969	418	146	12.6	14.2	127.165	F

2033 Total - Scenario 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	703.79	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	2033 Total - Scenario 2	PM	FLAT	17:00	18:00	60	15	✓	Simple	D2 + D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2921	100.000
2 - A2025 Grinstead Ln		FLAT	✓	706	100.000
3 - A27 West		FLAT	✓	2276	100.000
4 - Manor Road		FLAT	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	686	1985	250
	2 - A2025 Grinstead Ln	596	0	38	72
	3 - A27 West	2098	162	0	16
	4 - Manor Road	130	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.23	725.11	545.4	F	2921	2921
2 - A2025 Grinstead Ln	0.82	22.35	4.3	C	706	706
3 - A27 West	1.30	954.69	528.1	F	2276	2276
4 - Manor Road	0.48	14.75	0.9	B	229	229

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2921	730	222	2381	1.227	2364	2321	0.0	139.3	109.803	F
2 - A2025 Grinstead Ln	706	176	1862	874	0.808	691	724	0.0	3.8	18.385	C
3 - A27 West	2276	569	857	1759	1.294	1746	1696	0.0	132.5	140.931	F
4 - Manor Road	229	57	2317	483	0.474	226	286	0.0	0.9	13.788	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2921	730	223	2380	1.227	2379	2337	139.3	274.7	316.711	F
2 - A2025 Grinstead Ln	706	176	1875	866	0.815	705	728	3.8	4.1	21.953	C
3 - A27 West	2276	569	871	1749	1.301	1749	1708	132.5	264.3	412.584	F
4 - Manor Road	229	57	2331	473	0.484	229	289	0.9	0.9	14.708	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2921	730	223	2380	1.227	2380	2337	274.7	410.0	520.715	F
2 - A2025 Grinstead Ln	706	176	1875	866	0.815	706	728	4.1	4.2	22.252	C
3 - A27 West	2276	569	872	1748	1.302	1748	1708	264.3	396.2	683.354	F
4 - Manor Road	229	57	2332	473	0.484	229	289	0.9	0.9	14.737	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2921	730	223	2380	1.227	2380	2337	410.0	545.4	725.112	F
2 - A2025 Grinstead Ln	706	176	1875	866	0.815	706	728	4.2	4.3	22.349	C
3 - A27 West	2276	569	872	1748	1.302	1748	1708	396.2	528.1	954.693	F
4 - Manor Road	229	57	2332	473	0.484	229	289	0.9	0.9	14.747	B

2033 Total - Scenario 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	764.13	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	2033 Total - Scenario 3	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1 + D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2731	100.000
2 - A2025 Grinstead Ln		FLAT	✓	1391	100.000
3 - A27 West		FLAT	✓	2346	100.000
4 - Manor Road		FLAT	✓	422	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	664	1953	114
	2 - A2025 Grinstead Ln	631	0	694	66
	3 - A27 West	2207	138	0	1
	4 - Manor Road	307	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.15	486.66	363.7	F	2731	2731
2 - A2025 Grinstead Ln	1.57	1796.01	503.9	F	1391	1391
3 - A27 West	1.19	596.34	372.0	F	2346	2346
4 - Manor Road	0.96	118.76	13.1	F	422	422

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2731	683	223	2377	1.149	2353	2533	0.0	94.6	77.273	F
2 - A2025 Grinstead Ln	1391	348	1839	898	1.550	890	737	0.0	125.1	259.509	F
3 - A27 West	2346	586	548	1979	1.186	1958	2181	0.0	96.9	94.071	F
4 - Manor Road	422	105	2362	452	0.934	395	145	0.0	6.9	49.906	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2731	683	228	2374	1.151	2373	2562	94.6	184.2	215.964	F
2 - A2025 Grinstead Ln	1391	348	1856	886	1.570	886	745	125.1	251.3	771.105	F
3 - A27 West	2346	586	547	1979	1.185	1979	2195	96.9	188.7	264.456	F
4 - Manor Road	422	105	2380	439	0.961	410	146	6.9	9.9	88.617	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2731	683	229	2373	1.151	2372	2565	184.2	273.9	350.968	F
2 - A2025 Grinstead Ln	1391	348	1856	886	1.570	886	745	251.3	377.6	1283.249	F
3 - A27 West	2346	586	547	1980	1.185	1979	2195	188.7	280.4	430.163	F
4 - Manor Road	422	105	2380	439	0.962	414	146	9.9	11.8	106.773	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2731	683	230	2372	1.151	2372	2567	273.9	363.7	486.665	F
2 - A2025 Grinstead Ln	1391	348	1856	886	1.570	886	745	377.6	503.9	1796.009	F
3 - A27 West	2346	586	547	1980	1.185	1979	2196	280.4	372.0	596.339	F
4 - Manor Road	422	105	2380	439	0.962	417	146	11.8	13.1	118.764	F

2033 Total - Scenario 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	663.98	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	2033 Total - Scenario 3	PM	FLAT	17:00	18:00	60	15	✓	Simple	D2 + D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2861	100.000
2 - A2025 Grinstead Ln		FLAT	✓	702	100.000
3 - A27 West		FLAT	✓	2273	100.000
4 - Manor Road		FLAT	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	657	1956	248
	2 - A2025 Grinstead Ln	592	0	38	72
	3 - A27 West	2095	162	0	16
	4 - Manor Road	131	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.20	646.96	486.1	F	2861	2861
2 - A2025 Grinstead Ln	0.82	22.89	4.3	C	702	702
3 - A27 West	1.30	946.66	524.0	F	2273	2273
4 - Manor Road	0.48	14.68	0.9	B	230	230

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2861	715	222	2381	1.202	2362	2319	0.0	124.8	99.179	F
2 - A2025 Grinstead Ln	702	175	1873	867	0.809	687	711	0.0	3.8	18.637	C
3 - A27 West	2273	568	855	1761	1.291	1747	1704	0.0	131.4	139.783	F
4 - Manor Road	230	57	2314	485	0.474	226	288	0.0	0.9	13.730	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2861	715	224	2379	1.202	2379	2335	124.8	245.3	283.817	F
2 - A2025 Grinstead Ln	702	175	1887	858	0.818	701	716	3.8	4.2	22.438	C
3 - A27 West	2273	568	870	1750	1.299	1750	1717	131.4	262.2	409.112	F
4 - Manor Road	230	57	2328	475	0.484	230	291	0.9	0.9	14.643	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2861	715	224	2379	1.202	2379	2335	245.3	365.7	465.177	F
2 - A2025 Grinstead Ln	702	175	1887	858	0.818	702	716	4.2	4.3	22.778	C
3 - A27 West	2273	568	871	1749	1.299	1749	1718	262.2	393.1	677.593	F
4 - Manor Road	230	57	2329	475	0.484	230	292	0.9	0.9	14.673	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2861	715	224	2379	1.202	2379	2335	365.7	486.1	646.959	F
2 - A2025 Grinstead Ln	702	175	1887	858	0.818	702	716	4.3	4.3	22.888	C
3 - A27 West	2273	568	871	1749	1.299	1749	1718	393.1	524.0	946.657	F
4 - Manor Road	230	57	2329	475	0.484	230	292	0.9	0.9	14.683	B

2033 Total - Scenario 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	783.94	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	2033 Total - Scenario 4	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1 + D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2723	100.000
2 - A2025 Grinstead Ln		FLAT	✓	1401	100.000
3 - A27 West		FLAT	✓	2374	100.000
4 - Manor Road		FLAT	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	663	1948	112
	2 - A2025 Grinstead Ln	641	0	694	66
	3 - A27 West	2235	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.15	474.47	354.6	F	2723	2723
2 - A2025 Grinstead Ln	1.58	1831.61	513.8	F	1401	1401
3 - A27 West	1.20	642.64	400.9	F	2374	2374
4 - Manor Road	0.97	128.03	14.3	F	424	424

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2723	681	221	2379	1.145	2353	2539	0.0	92.4	75.671	F
2 - A2025 Grinstead Ln	1401	350	1838	898	1.560	891	736	0.0	127.5	264.295	F
3 - A27 West	2374	594	550	1977	1.201	1958	2179	0.0	103.9	100.298	F
4 - Manor Road	424	106	2365	449	0.943	395	143	0.0	7.2	51.910	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2723	681	226	2375	1.147	2374	2567	92.4	179.8	210.899	F
2 - A2025 Grinstead Ln	1401	350	1856	886	1.581	886	744	127.5	256.3	786.055	F
3 - A27 West	2374	594	549	1978	1.200	1978	2193	103.9	203.0	283.855	F
4 - Manor Road	424	106	2382	437	0.969	411	144	7.2	10.6	93.581	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2723	681	228	2374	1.147	2373	2570	179.8	267.1	342.335	F
2 - A2025 Grinstead Ln	1401	350	1856	886	1.581	886	745	256.3	385.0	1308.522	F
3 - A27 West	2374	594	549	1978	1.200	1978	2194	203.0	302.0	463.021	F
4 - Manor Road	424	106	2383	437	0.970	415	144	10.6	12.7	113.981	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2723	681	228	2373	1.147	2373	2572	267.1	354.6	474.466	F
2 - A2025 Grinstead Ln	1401	350	1856	886	1.582	886	745	385.0	513.8	1831.608	F
3 - A27 West	2374	594	549	1978	1.200	1978	2194	302.0	400.9	642.644	F
4 - Manor Road	424	106	2383	437	0.970	418	144	12.7	14.3	128.033	F

2033 Total - Scenario 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	665.77	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	2033 Total - Scenario 4	PM	FLAT	17:00	18:00	60	15	✓	Simple	D2 + D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2875	100.000
2 - A2025 Grinstead Ln		FLAT	✓	698	100.000
3 - A27 West		FLAT	✓	2268	100.000
4 - Manor Road		FLAT	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	666	1963	246
	2 - A2025 Grinstead Ln	588	0	38	72
	3 - A27 West	2090	162	0	16
	4 - Manor Road	130	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.21	666.01	500.5	F	2875	2875
2 - A2025 Grinstead Ln	0.81	21.89	4.1	C	698	698
3 - A27 West	1.29	926.98	514.4	F	2268	2268
4 - Manor Road	0.48	14.65	0.9	B	229	229

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2875	719	223	2380	1.208	2362	2318	0.0	128.3	101.755	F
2 - A2025 Grinstead Ln	698	175	1868	870	0.802	683	717	0.0	3.7	18.070	C
3 - A27 West	2268	567	849	1765	1.285	1751	1702	0.0	129.2	137.172	F
4 - Manor Road	229	57	2315	485	0.472	226	286	0.0	0.9	13.701	B

17:15 - 17:30

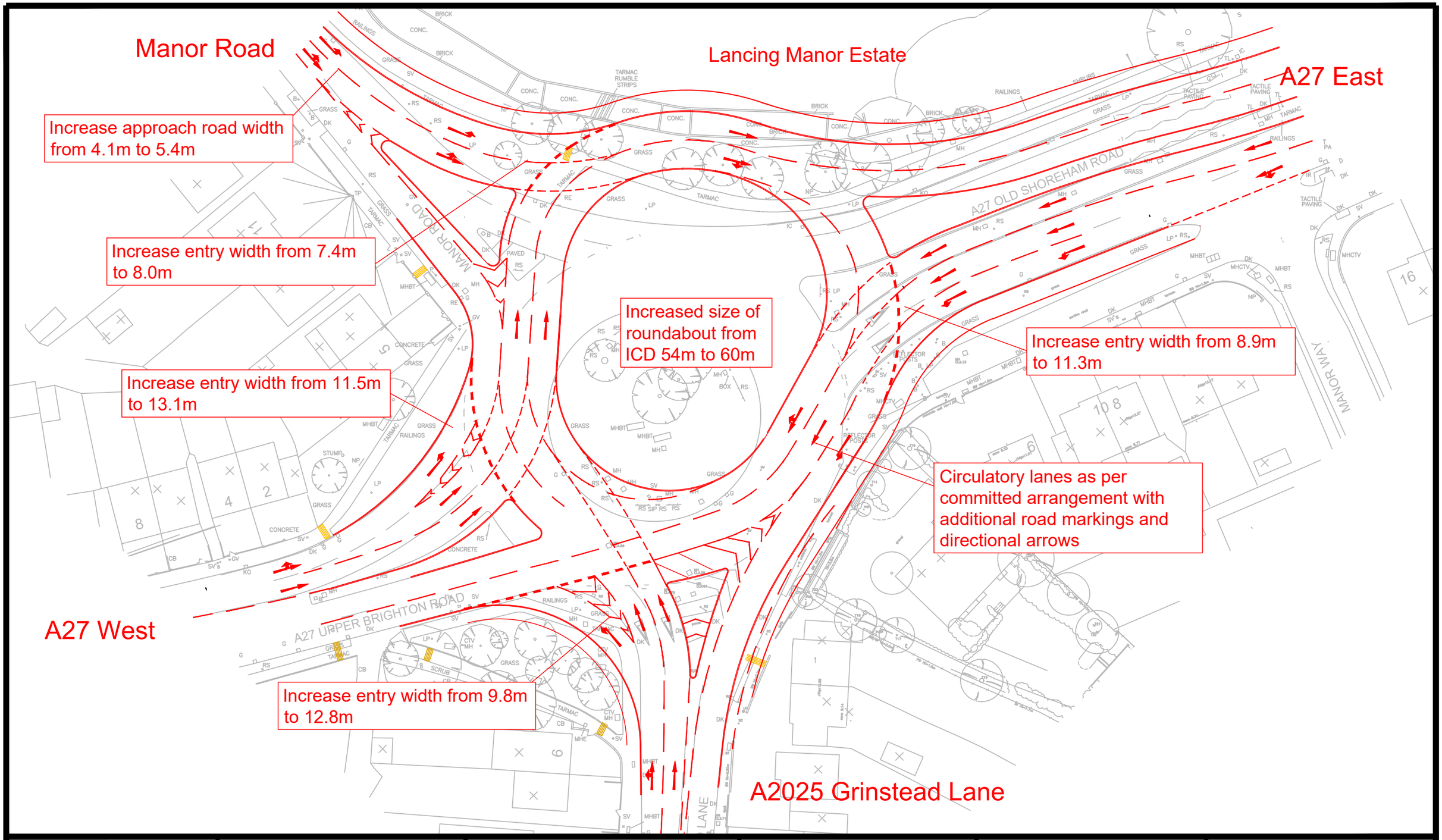
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2875	719	224	2379	1.208	2379	2334	128.3	252.4	291.819	F
2 - A2025 Grinstead Ln	698	175	1882	861	0.810	697	721	3.7	4.0	21.512	C
3 - A27 West	2268	567	863	1755	1.292	1755	1715	129.2	257.5	400.927	F
4 - Manor Road	229	57	2329	475	0.482	229	289	0.9	0.9	14.614	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2875	719	224	2379	1.209	2379	2334	252.4	376.4	478.709	F
2 - A2025 Grinstead Ln	698	175	1882	861	0.810	698	721	4.0	4.1	21.800	C
3 - A27 West	2268	567	864	1754	1.293	1754	1715	257.5	385.9	663.670	F
4 - Manor Road	229	57	2329	475	0.482	229	289	0.9	0.9	14.643	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2875	719	224	2379	1.209	2379	2334	376.4	500.5	666.011	F
2 - A2025 Grinstead Ln	698	175	1882	861	0.810	698	721	4.1	4.1	21.889	C
3 - A27 West	2268	567	864	1754	1.293	1754	1715	385.9	514.4	926.984	F
4 - Manor Road	229	57	2330	475	0.482	229	289	0.9	0.9	14.652	B



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T R A F F I C &
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NOTES

1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A27/GRINSTEAD LANE ROUNDABOUT

Date	Drawn		
03/11/2021	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
NTS @ A3	APPENDIX 9.4		

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 10 - C - A27-Grinstead Ln- Comm Jct + IMP - 2033 TotaL.j9
Path: D:\5201 Shoreham\Amol\10 - A27 + Grinstead Lane
Report generation date: 11/11/2021 17:06:27

»2033 Total - Scenario 1, AM
»2033 Total - Scenario 1, PM
»2033 Total - Scenario 2, AM
»2033 Total - Scenario 2, PM
»2033 Total - Scenario 3, AM
»2033 Total - Scenario 3, PM
»2033 Total - Scenario 4, AM
»2033 Total - Scenario 4, PM

APPENDIX 9.5
ARCADY OUTPUT: PROPOSED DEVELOPMENT SCENARIOS
(WITH PROPOSED JUNCTION IMPROVEMENTS)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2033 Total - Scenario 1													
1 - A27 East	155.1	159.52	1.10	F	575.92	F	-28 % [2 - A2025 Grinstead Ln]	149.7	176.13	1.05	F	388.16	F	-20 % [3 - A27 West]
2 - A2025 Grinstead Ln	465.9	1545.43	1.71	F				4.3	22.35	0.82	C			
3 - A27 West	340.0	586.07	1.27	F				465.9	807.91	1.26	F			
4 - Manor Road	6.5	53.96	0.89	F				0.7	10.83	0.41	B			
	2033 Total - Scenario 2													
1 - A27 East	147.0	151.87	1.10	F	566.63	F	-28 % [2 - A2025 Grinstead Ln]	234.2	279.76	1.16	F	443.70	F	-26 % [3 - A27 West]
2 - A2025 Grinstead Ln	461.7	1517.43	1.71	F				6.9	34.38	0.89	D			
3 - A27 West	337.6	582.73	1.27	F				455.4	822.30	1.41	F			
4 - Manor Road	6.5	54.20	0.89	F				0.8	11.79	0.45	B			
	2033 Total - Scenario 3													
1 - A27 East	133.9	139.38	1.09	F	536.74	F	-28 % [2 - A2025 Grinstead Ln]	199.9	227.33	1.13	F	417.70	F	-26 % [3 - A27 West]
2 - A2025 Grinstead Ln	452.4	1471.52	1.71	F				7.2	35.71	0.90	E			
3 - A27 West	308.3	536.80	1.25	F				450.9	814.17	1.40	F			
4 - Manor Road	6.3	52.07	0.89	F				0.8	11.75	0.45	B			
	2033 Total - Scenario 4													
1 - A27 East	129.1	134.79	1.08	F	555.55	F	-28 % [2 - A2025 Grinstead Ln]	208.1	239.96	1.14	F	416.59	F	-25 % [3 - A27 West]
2 - A2025 Grinstead Ln	461.2	1486.51	1.72	F				6.7	33.40	0.89	D			
3 - A27 West	336.7	582.57	1.27	F				441.4	797.14	1.40	F			
4 - Manor Road	6.6	54.49	0.89	F				0.8	11.73	0.45	B			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base minus permitted	AM	ONE HOUR	07:45	09:15		15			
D2	2033 Base minus permitted	PM	ONE HOUR	16:45	18:15		15			
D3	Scenario 1	AM	ONE HOUR	07:45	09:15		15			
D4	Scenario 1	PM	ONE HOUR	16:45	18:15		15			
D5	Scenario 2	AM	ONE HOUR	07:45	09:15		15			
D6	Scenario 2	PM	ONE HOUR	16:45	18:15		15			
D7	Scenario 3	AM	ONE HOUR	07:45	09:15		15			
D8	Scenario 3	PM	ONE HOUR	16:45	18:15		15			
D9	Scenario 4	AM	ONE HOUR	07:45	09:15		15			
D10	Scenario 4	PM	ONE HOUR	16:45	18:15		15			
D11	2033 Total - Scenario 1	AM	ONE HOUR	07:45	09:15		15	✓	Simple	D1 + D3
D12	2033 Total - Scenario 1	PM	FLAT	16:45	17:45	60	15	✓	Simple	D2 + D4
D13	2033 Total - Scenario 2	AM	ONE HOUR	07:45	09:15		15	✓	Simple	D1 + D5
D14	2033 Total - Scenario 2	PM	ONE HOUR	16:45	18:15		15	✓	Simple	D2 + D6
D15	2033 Total - Scenario 3	AM	ONE HOUR	07:45	09:15		15	✓	Simple	D1 + D7
D16	2033 Total - Scenario 3	PM	ONE HOUR	16:45	18:15		15	✓	Simple	D2 + D8
D17	2033 Total - Scenario 4	AM	ONE HOUR	07:45	09:15		15	✓	Simple	D1 + D9
D18	2033 Total - Scenario 4	PM	ONE HOUR	16:45	18:15		15	✓	Simple	D2 + D10

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Total - Scenario 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	575.92	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	2 - A2025 Grinstead Ln

Arms

Arms

Arm	Name	Description
1	A27 East	
2	A2025 Grinstead Ln	
3	A27 West	
4	Manor Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 East	7.20	11.30	38.5	25.0	60.0	37.0	
2 - A2025 Grinstead Ln	5.50	12.80	15.0	20.0	60.0	43.0	
3 - A27 West	5.00	13.10	16.4	40.0	60.0	25.0	
4 - Manor Road	5.40	8.00	22.4	30.0	60.0	46.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 East	0.789	3063
2 - A2025 Grinstead Ln	0.669	2417
3 - A27 West	0.719	2569
4 - Manor Road	0.620	2124

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2033 Total - Scenario 1	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1 + D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2772	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1405	100.000
3 - A27 West		ONE HOUR	✓	2374	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	684	1971	117
	2 - A2025 Grinstead Ln	645	0	694	66
	3 - A27 West	2235	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.10	159.52	155.1	F	2544	3815
2 - A2025 Grinstead Ln	1.71	1545.43	465.9	F	1289	1934
3 - A27 West	1.27	586.07	340.0	F	2178	3268
4 - Manor Road	0.89	53.96	6.5	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2087	522	188	2810	0.743	2076	2366	0.0	2.8	4.827	A
2 - A2025 Grinstead Ln	1058	264	1610	1269	0.833	1040	654	0.0	4.5	14.693	B
3 - A27 West	1787	447	617	2032	0.879	1761	2033	0.0	6.5	12.301	B
4 - Manor Road	319	80	2238	675	0.473	316	140	0.0	0.9	9.921	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2492	623	217	2788	0.894	2473	2625	2.8	7.6	10.828	B
2 - A2025 Grinstead Ln	1263	316	1918	1060	1.191	1050	773	4.5	57.7	120.889	F
3 - A27 West	2134	534	639	2016	1.058	1986	2329	6.5	43.5	54.351	F
4 - Manor Road	381	95	2467	529	0.721	375	158	0.9	2.4	22.639	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3052	763	243	2768	1.102	2750	2686	7.6	83.1	66.107	F
2 - A2025 Grinstead Ln	1547	387	2138	911	1.698	911	855	57.7	216.7	551.320	F
3 - A27 West	2614	653	581	2058	1.270	2057	2467	43.5	182.7	203.110	F
4 - Manor Road	467	117	2475	524	0.891	453	164	2.4	5.7	44.091	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3052	763	246	2766	1.103	2764	2692	83.1	155.1	159.519	F
2 - A2025 Grinstead Ln	1547	387	2150	903	1.713	903	860	216.7	377.7	1164.855	F
3 - A27 West	2614	653	578	2061	1.268	2061	2475	182.7	321.0	443.523	F
4 - Manor Road	467	117	2474	524	0.890	464	164	5.7	6.5	53.965	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2492	623	227	2780	0.896	2763	2644	155.1	87.4	158.982	F
2 - A2025 Grinstead Ln	1263	316	2139	910	1.387	910	851	377.7	465.9	1545.432	F
3 - A27 West	2134	534	581	2059	1.037	2058	2468	321.0	340.0	586.068	F
4 - Manor Road	381	95	2475	524	0.728	396	164	6.5	2.9	30.497	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2087	522	204	2798	0.746	2424	2617	87.4	3.1	23.745	C
2 - A2025 Grinstead Ln	1058	264	1873	1090	0.970	1088	755	465.9	458.3	1529.152	F
3 - A27 West	1787	447	656	2005	0.892	1999	2305	340.0	287.1	565.009	F
4 - Manor Road	319	80	2497	510	0.626	324	157	2.9	1.8	19.836	C

2033 Total - Scenario 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	388.16	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-20	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	2033 Total - Scenario 1	PM	FLAT	16:45	17:45	60	15	✓	Simple	D2 + D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		FLAT	✓	2914	100.000
2 - A2025 Grinstead Ln		FLAT	✓	713	100.000
3 - A27 West		FLAT	✓	2289	100.000
4 - Manor Road		FLAT	✓	231	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	682	1983	249
	2 - A2025 Grinstead Ln	603	0	38	72
	3 - A27 West	2111	162	0	16
	4 - Manor Road	132	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.05	176.13	149.7	F	2914	2914
2 - A2025 Grinstead Ln	0.82	22.35	4.3	C	713	713
3 - A27 West	1.26	807.91	465.9	F	2289	2289
4 - Manor Road	0.41	10.83	0.7	B	231	231

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2914	728	227	2784	1.047	2726	2401	0.0	47.1	37.773	E
2 - A2025 Grinstead Ln	713	178	2141	901	0.792	699	811	0.0	3.5	16.869	C
3 - A27 West	2289	572	896	1836	1.247	1820	1945	0.0	117.1	120.476	F
4 - Manor Road	231	58	2399	573	0.403	228	317	0.0	0.7	10.379	B

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2914	728	228	2783	1.047	2773	2416	47.1	82.2	89.914	F
2 - A2025 Grinstead Ln	713	178	2178	876	0.814	711	823	3.5	4.0	21.356	C
3 - A27 West	2289	572	911	1825	1.254	1825	1978	117.1	233.2	349.987	F
4 - Manor Road	231	58	2413	564	0.410	231	323	0.7	0.7	10.818	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2914	728	228	2783	1.047	2778	2416	82.2	116.2	133.264	F
2 - A2025 Grinstead Ln	713	178	2182	873	0.816	712	824	4.0	4.2	22.093	C
3 - A27 West	2289	572	913	1824	1.255	1824	1982	233.2	349.5	578.566	F
4 - Manor Road	231	58	2413	563	0.410	231	323	0.7	0.7	10.826	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2914	728	228	2783	1.047	2780	2416	116.2	149.7	176.127	F
2 - A2025 Grinstead Ln	713	178	2183	872	0.817	713	825	4.2	4.3	22.345	C
3 - A27 West	2289	572	913	1824	1.255	1823	1983	349.5	465.9	807.913	F
4 - Manor Road	231	58	2413	563	0.410	231	323	0.7	0.7	10.829	B

2033 Total - Scenario 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	566.63	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	2033 Total - Scenario 2	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1 + D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2757	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1402	100.000
3 - A27 West		ONE HOUR	✓	2373	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	679	1963	115
	2 - A2025 Grinstead Ln	642	0	694	66
	3 - A27 West	2234	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.10	151.87	147.0	F	2530	3795
2 - A2025 Grinstead Ln	1.71	1517.43	461.7	F	1286	1930
3 - A27 West	1.27	582.73	337.6	F	2178	3266
4 - Manor Road	0.89	54.20	6.5	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2076	519	188	2810	0.739	2065	2363	0.0	2.8	4.759	A
2 - A2025 Grinstead Ln	1055	264	1602	1274	0.828	1038	650	0.0	4.4	14.320	B
3 - A27 West	1787	447	613	2035	0.878	1761	2027	0.0	6.4	12.184	B
4 - Manor Road	319	80	2235	677	0.472	316	139	0.0	0.9	9.880	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2478	620	217	2788	0.889	2461	2626	2.8	7.3	10.464	B
2 - A2025 Grinstead Ln	1260	315	1909	1066	1.182	1055	768	4.4	55.7	116.663	F
3 - A27 West	2133	533	639	2017	1.058	1986	2326	6.4	43.2	54.042	F
4 - Manor Road	381	95	2468	528	0.722	375	157	0.9	2.4	22.711	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3036	759	243	2768	1.097	2748	2686	7.3	79.1	63.423	F
2 - A2025 Grinstead Ln	1544	386	2138	911	1.694	911	853	55.7	213.8	541.793	F
3 - A27 West	2613	653	579	2060	1.268	2059	2470	43.2	181.7	201.883	F
4 - Manor Road	467	117	2475	524	0.891	453	163	2.4	5.7	44.263	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3036	759	246	2766	1.097	2764	2693	79.1	147.0	151.867	F
2 - A2025 Grinstead Ln	1544	386	2151	902	1.711	902	859	213.8	374.1	1151.248	F
3 - A27 West	2613	653	575	2063	1.267	2062	2478	181.7	319.2	440.796	F
4 - Manor Road	467	117	2475	524	0.891	464	163	5.7	6.5	54.205	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2478	620	227	2780	0.891	2761	2644	147.0	76.3	146.785	F
2 - A2025 Grinstead Ln	1260	315	2139	910	1.385	910	849	374.1	461.7	1517.430	F
3 - A27 West	2133	533	578	2060	1.035	2060	2471	319.2	337.6	582.734	F
4 - Manor Road	381	95	2476	523	0.728	396	163	6.5	2.9	30.621	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2076	519	204	2798	0.742	2369	2622	76.3	3.0	17.099	C
2 - A2025 Grinstead Ln	1055	264	1833	1118	0.944	1115	740	461.7	446.7	1466.167	F
3 - A27 West	1787	447	665	1998	0.894	1992	2283	337.6	286.2	563.944	F
4 - Manor Road	319	80	2502	507	0.630	324	155	2.9	1.8	20.148	C

2033 Total - Scenario 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	443.70	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	2033 Total - Scenario 2	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2 + D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2921	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	706	100.000
3 - A27 West		ONE HOUR	✓	2276	100.000
4 - Manor Road		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	686	1985	250
	2 - A2025 Grinstead Ln	596	0	38	72
	3 - A27 West	2098	162	0	16
	4 - Manor Road	130	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.16	279.76	234.2	F	2680	4021
2 - A2025 Grinstead Ln	0.89	34.38	6.9	D	648	972
3 - A27 West	1.41	822.30	455.4	F	2088	3133
4 - Manor Road	0.45	11.79	0.8	B	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2199	550	194	2809	0.783	2185	2101	0.0	3.5	5.653	A
2 - A2025 Grinstead Ln	532	133	1712	1188	0.447	528	667	0.0	0.8	5.432	A
3 - A27 West	1713	428	688	1984	0.863	1690	1553	0.0	5.8	11.480	B
4 - Manor Road	172	43	2125	748	0.231	171	254	0.0	0.3	6.230	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2626	656	221	2788	0.942	2591	2370	3.5	12.3	16.006	C
2 - A2025 Grinstead Ln	635	159	2031	975	0.651	631	782	0.8	1.8	10.345	B
3 - A27 West	2046	512	819	1891	1.082	1867	1842	5.8	50.6	63.668	F
4 - Manor Road	206	51	2386	581	0.354	205	300	0.3	0.5	9.549	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3216	804	236	2777	1.158	2768	2436	12.3	124.2	94.659	F
2 - A2025 Grinstead Ln	777	194	2178	876	0.887	760	827	1.8	6.1	27.596	D
3 - A27 West	2506	626	957	1792	1.398	1792	1980	50.6	229.2	286.507	F
4 - Manor Road	252	63	2421	559	0.451	251	328	0.5	0.8	11.655	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3216	804	236	2777	1.158	2776	2439	124.2	234.2	235.840	F
2 - A2025 Grinstead Ln	777	194	2184	872	0.891	774	828	6.1	6.9	34.379	D
3 - A27 West	2506	626	971	1782	1.406	1782	1986	229.2	410.2	636.969	F
4 - Manor Road	252	63	2423	557	0.452	252	330	0.8	0.8	11.789	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2626	656	222	2787	0.942	2775	2387	234.2	196.9	279.761	F
2 - A2025 Grinstead Ln	635	159	2172	880	0.721	652	825	6.9	2.7	16.800	C
3 - A27 West	2046	512	855	1865	1.097	1865	1969	410.2	455.4	822.304	F
4 - Manor Road	206	51	2402	571	0.361	207	318	0.8	0.6	9.923	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2199	550	213	2794	0.787	2780	2338	196.9	51.6	162.635	F
2 - A2025 Grinstead Ln	532	133	2168	882	0.602	536	825	2.7	1.6	10.536	B
3 - A27 West	1713	428	746	1943	0.882	1939	1958	455.4	398.9	793.121	F
4 - Manor Road	172	43	2378	586	0.294	173	307	0.6	0.4	8.731	A

2033 Total - Scenario 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	536.74	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	2033 Total - Scenario 3	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1 + D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2731	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1391	100.000
3 - A27 West		ONE HOUR	✓	2346	100.000
4 - Manor Road		ONE HOUR	✓	422	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	664	1953	114
	2 - A2025 Grinstead Ln	631	0	694	66
	3 - A27 West	2207	138	0	1
	4 - Manor Road	307	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.09	139.38	133.9	F	2506	3759
2 - A2025 Grinstead Ln	1.71	1471.52	452.4	F	1276	1915
3 - A27 West	1.25	536.80	308.3	F	2153	3229
4 - Manor Road	0.89	52.07	6.3	F	387	581

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2056	514	188	2810	0.732	2045	2336	0.0	2.7	4.644	A
2 - A2025 Grinstead Ln	1047	262	1594	1280	0.818	1031	639	0.0	4.1	13.658	B
3 - A27 West	1766	442	605	2041	0.865	1743	2020	0.0	5.8	11.318	B
4 - Manor Road	318	79	2210	693	0.458	314	138	0.0	0.8	9.424	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2455	614	218	2787	0.881	2439	2616	2.7	6.8	9.898	A
2 - A2025 Grinstead Ln	1250	313	1901	1072	1.166	1060	756	4.1	51.8	109.154	F
3 - A27 West	2109	527	636	2019	1.045	1981	2324	5.8	37.8	48.745	E
4 - Manor Road	379	95	2461	533	0.712	374	156	0.8	2.3	21.880	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3007	752	244	2767	1.087	2744	2681	6.8	72.6	59.083	F
2 - A2025 Grinstead Ln	1532	383	2143	908	1.687	908	845	51.8	207.8	524.575	F
3 - A27 West	2583	646	574	2064	1.252	2063	2477	37.8	167.9	184.994	F
4 - Manor Road	465	116	2473	525	0.885	452	163	2.3	5.5	42.848	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3007	752	247	2765	1.088	2762	2687	72.6	133.9	139.383	F
2 - A2025 Grinstead Ln	1532	383	2158	898	1.706	898	851	207.8	366.3	1127.581	F
3 - A27 West	2583	646	569	2067	1.250	2067	2486	167.9	297.0	408.571	F
4 - Manor Road	465	116	2473	525	0.885	462	163	5.5	6.3	52.067	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2455	614	228	2779	0.883	2758	2638	133.9	58.0	126.825	F
2 - A2025 Grinstead Ln	1250	313	2146	906	1.380	906	841	366.3	452.4	1471.524	F
3 - A27 West	2109	527	573	2065	1.022	2064	2479	297.0	308.3	536.804	F
4 - Manor Road	379	95	2474	525	0.723	393	163	6.3	2.8	29.560	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2056	514	204	2798	0.735	2277	2624	58.0	2.8	10.714	B
2 - A2025 Grinstead Ln	1047	262	1771	1160	0.903	1158	711	452.4	424.8	1364.085	F
3 - A27 West	1766	442	678	1988	0.888	1982	2250	308.3	254.3	511.221	F
4 - Manor Road	318	79	2506	504	0.631	322	154	2.8	1.8	20.228	C

2033 Total - Scenario 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	417.70	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	2033 Total - Scenario 3	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2 + D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2861	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	702	100.000
3 - A27 West		ONE HOUR	✓	2273	100.000
4 - Manor Road		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	657	1956	248
	2 - A2025 Grinstead Ln	592	0	38	72
	3 - A27 West	2095	162	0	16
	4 - Manor Road	131	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.13	227.33	199.9	F	2625	3938
2 - A2025 Grinstead Ln	0.90	35.71	7.2	E	644	966
3 - A27 West	1.40	814.17	450.9	F	2086	3129
4 - Manor Road	0.45	11.75	0.8	B	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2154	538	194	2809	0.767	2141	2097	0.0	3.2	5.296	A
2 - A2025 Grinstead Ln	529	132	1690	1203	0.439	525	646	0.0	0.8	5.288	A
3 - A27 West	1711	428	683	1988	0.861	1689	1532	0.0	5.6	11.311	B
4 - Manor Road	173	43	2120	751	0.231	172	252	0.0	0.3	6.206	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2572	643	222	2787	0.923	2545	2369	3.2	10.0	13.550	B
2 - A2025 Grinstead Ln	631	158	2009	989	0.638	627	758	0.8	1.7	9.844	A
3 - A27 West	2043	511	815	1894	1.079	1869	1821	5.6	49.3	62.263	F
4 - Manor Road	207	52	2385	582	0.355	206	299	0.3	0.5	9.551	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3150	788	236	2776	1.135	2765	2433	10.0	106.3	81.933	F
2 - A2025 Grinstead Ln	773	193	2189	869	0.890	755	812	1.7	6.2	28.054	D
3 - A27 West	2503	626	955	1794	1.395	1793	1989	49.3	226.6	282.346	F
4 - Manor Road	253	63	2417	561	0.451	252	331	0.5	0.8	11.617	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3150	788	236	2776	1.135	2775	2437	106.3	199.9	202.401	F
2 - A2025 Grinstead Ln	773	193	2198	863	0.896	769	814	6.2	7.2	35.714	E
3 - A27 West	2503	626	969	1783	1.403	1783	1997	226.6	406.4	630.456	F
4 - Manor Road	253	63	2419	560	0.453	253	333	0.8	0.8	11.747	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2572	643	222	2787	0.923	2773	2385	199.9	149.6	227.325	F
2 - A2025 Grinstead Ln	631	158	2185	871	0.724	649	810	7.2	2.8	17.287	C
3 - A27 West	2043	511	855	1866	1.095	1865	1979	406.4	450.9	814.167	F
4 - Manor Road	207	52	2399	573	0.361	208	321	0.8	0.6	9.897	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2154	538	213	2794	0.771	2736	2339	149.6	4.1	96.994	F
2 - A2025 Grinstead Ln	529	132	2149	896	0.590	534	801	2.8	1.5	10.090	B
3 - A27 West	1711	428	743	1946	0.879	1942	1940	450.9	393.3	782.818	F
4 - Manor Road	173	43	2378	586	0.295	174	306	0.6	0.4	8.743	A

2033 Total - Scenario 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	555.55	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	2033 Total - Scenario 4	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1 + D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2723	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1401	100.000
3 - A27 West		ONE HOUR	✓	2374	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	663	1948	112
	2 - A2025 Grinstead Ln	641	0	694	66
	3 - A27 West	2235	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.08	134.79	129.1	F	2499	3748
2 - A2025 Grinstead Ln	1.72	1486.51	461.2	F	1286	1928
3 - A27 West	1.27	582.57	336.7	F	2178	3268
4 - Manor Road	0.89	54.49	6.6	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2050	513	188	2810	0.729	2039	2363	0.0	2.6	4.609	A
2 - A2025 Grinstead Ln	1055	264	1589	1283	0.822	1038	638	0.0	4.2	13.844	B
3 - A27 West	1787	447	611	2037	0.878	1762	2016	0.0	6.4	12.144	B
4 - Manor Road	319	80	2236	676	0.472	316	136	0.0	0.9	9.886	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2448	612	217	2788	0.878	2432	2629	2.6	6.6	9.708	A
2 - A2025 Grinstead Ln	1259	315	1895	1076	1.171	1064	754	4.2	53.1	111.140	F
3 - A27 West	2134	534	641	2016	1.059	1985	2318	6.4	43.6	54.387	F
4 - Manor Road	381	95	2471	526	0.724	375	155	0.9	2.4	22.951	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2998	750	243	2768	1.083	2744	2687	6.6	70.2	57.498	F
2 - A2025 Grinstead Ln	1543	386	2142	908	1.698	908	845	53.1	211.6	534.563	F
3 - A27 West	2614	653	575	2063	1.267	2061	2475	43.6	181.7	202.005	F
4 - Manor Road	467	117	2476	523	0.892	453	161	2.4	5.8	44.528	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2998	750	246	2766	1.084	2763	2693	70.2	129.1	134.790	F
2 - A2025 Grinstead Ln	1543	386	2158	898	1.718	898	851	211.6	372.9	1144.872	F
3 - A27 West	2614	653	571	2066	1.265	2066	2484	181.7	318.8	439.790	F
4 - Manor Road	467	117	2475	524	0.892	464	161	5.8	6.6	54.489	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2448	612	227	2780	0.881	2759	2645	129.1	51.4	119.561	F
2 - A2025 Grinstead Ln	1259	315	2145	906	1.390	906	841	372.9	461.2	1486.507	F
3 - A27 West	2134	534	574	2063	1.034	2063	2476	318.8	336.7	582.575	F
4 - Manor Road	381	95	2476	523	0.729	396	161	6.6	2.9	30.771	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2050	513	203	2799	0.732	2244	2633	51.4	2.8	9.292	A
2 - A2025 Grinstead Ln	1055	264	1745	1177	0.896	1175	702	461.2	431.2	1367.595	F
3 - A27 West	1787	447	688	1981	0.902	1975	2232	336.7	289.6	570.921	F
4 - Manor Road	319	80	2512	500	0.638	324	152	2.9	1.9	20.855	C

2033 Total - Scenario 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	416.59	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-25	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	2033 Total - Scenario 4	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2 + D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2875	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	698	100.000
3 - A27 West		ONE HOUR	✓	2268	100.000
4 - Manor Road		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	666	1963	246
	2 - A2025 Grinstead Ln	588	0	38	72
	3 - A27 West	2090	162	0	16
	4 - Manor Road	130	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.14	239.96	208.1	F	2638	3957
2 - A2025 Grinstead Ln	0.89	33.40	6.7	D	640	961
3 - A27 West	1.40	797.14	441.4	F	2081	3122
4 - Manor Road	0.45	11.73	0.8	B	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2164	541	194	2809	0.771	2151	2090	0.0	3.3	5.377	A
2 - A2025 Grinstead Ln	525	131	1693	1201	0.438	522	652	0.0	0.8	5.285	A
3 - A27 West	1707	427	679	1991	0.858	1685	1537	0.0	5.5	11.097	B
4 - Manor Road	172	43	2114	755	0.228	171	251	0.0	0.3	6.155	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2585	646	222	2787	0.927	2556	2366	3.3	10.5	14.089	B
2 - A2025 Grinstead Ln	627	157	2012	987	0.636	624	766	0.8	1.7	9.809	A
3 - A27 West	2039	510	809	1898	1.074	1871	1826	5.5	47.4	60.316	F
4 - Manor Road	206	51	2384	582	0.353	205	297	0.3	0.5	9.509	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3165	791	237	2776	1.140	2765	2432	10.5	110.5	84.922	F
2 - A2025 Grinstead Ln	769	192	2184	872	0.881	752	818	1.7	5.9	26.829	D
3 - A27 West	2497	624	949	1798	1.389	1798	1987	47.4	222.3	275.500	F
4 - Manor Road	252	63	2418	560	0.450	251	328	0.5	0.8	11.600	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3165	791	237	2776	1.140	2775	2436	110.5	208.1	210.407	F
2 - A2025 Grinstead Ln	769	192	2192	867	0.886	765	820	5.9	6.7	33.403	D
3 - A27 West	2497	624	962	1788	1.396	1788	1995	222.3	399.4	617.684	F
4 - Manor Road	252	63	2420	559	0.451	252	330	0.8	0.8	11.729	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2585	646	223	2786	0.928	2773	2384	208.1	161.0	239.956	F
2 - A2025 Grinstead Ln	627	157	2179	875	0.717	644	817	6.7	2.7	16.505	C
3 - A27 West	2039	510	847	1871	1.090	1871	1976	399.4	441.4	797.138	F
4 - Manor Road	206	51	2400	572	0.360	207	318	0.8	0.6	9.884	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2164	541	214	2794	0.775	2776	2336	161.0	8.0	112.582	F
2 - A2025 Grinstead Ln	525	131	2174	878	0.598	530	816	2.7	1.5	10.465	B
3 - A27 West	1707	427	740	1948	0.876	1944	1965	441.4	382.3	762.917	F
4 - Manor Road	172	43	2377	587	0.294	173	307	0.6	0.4	8.708	A

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham A27 / Grinstead Lane Roundabout**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A27 / Grinstead Lane Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-10A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	4000.00	4,000.00
1.02	REMOVE CONCRETE KERBS	272.00	m	15.00	4,080.00
1.03	REMOVE EDGING KERB	216.00	m	3.00	648.00
1.04	REMOVE GUARD RAILINGS	63.00	m	60.00	3,780.00
1.05	REMOVE LIGHTING COLUMNS	10.00	ITEM	750.00	7,500.00
1.06	REMOVE GULLIES	5.00	No	450.00	2,250.00
1.07	REMOVE TRAFFIC SIGNS	8.00	No	350.00	2,800.00
1.08	REMOVE REFLECTIVE BOLLARDS	15.00	Nn	175.00	2,625.00
1.09	REMOVE BOLLARDS	1.00	No	250.00	250.00
					27,933.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	235.00	Cum	22.00	5,170.00
2.02	EXCAVATE HARD AND DISPOSE	75.00	Cum	55.00	4,125.00
2.03	DISPOSE U/S	310.00	Cum	50.00	15,500.00
2.04	FORMATION AND SUB-FORMATION	787.00	Sqm	1.20	944.40
2.05	PLANE CARRIAGEWAY (40mm)	2896.00	Sqm	3.50	10,136.00
2.06	PLANE FOOTWAY (20mm)	200.00	Sqm	2.50	500.00
2.07	IMPORT CAPPING AND COMPACT	90.00	Cum	18.00	1,620.00
					37,995.40
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	68.00	Cum	25.00	1,700.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	303.00	Sqm	22.00	6,666.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	303.00	Sqm	24.00	7,272.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	3199.00	Sqm	18.00	57,582.00
3.05	CONCRETE KERBING	286.00	m	20.00	5,720.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	225.00	m	12.00	2,700.00
3.08	SUB BASE - FOOTWAY(150mm)	60.00	Cum	18.00	1,080.00
3.09	FOOTWAY SURFACE COURSE (20mm)	556.00	Sqm	8.00	4,448.00
3.10	FOOTWAY BINDER COURSE (50mm)	336.00	Sqm	11.00	3,696.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	30.00	Sqm	30.00	900.00
					91,764.00

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				

APPENDIX 9.6
BUDGET COST ESTIMATE FOR OFF-SITE HIGHWAY WORKS: COMMITTED JUNCTION IMPROVEMENTS

4.01	GULLY UNITS	5.00	No	600.00	3,000.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	5.00	No	500.00	2,500.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					5,500.00

5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	3500.00	3500.00
5.02	BOLLARDS	1.00	No	600.00	600.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	8.00	No	750.00	6000.00
5.04	ADS and POSTs	0.00	No	1250.00	0.00
					10,100.00

7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	4500.00	4,500.00
7.02	STREET LIGHTING COLUMN	10.00	No.	1800.00	18,000.00
7.03	LIGHTING DUCTING	100.00	m	20.00	2,000.00
7.04	TOPSOIL & SEED	100.00	Sqm	12.50	1,250.00
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	7500.00	7,500.00
					33,250.00

	SUMMARY	
	Preliminaries 15%	£25,993.86
1.0	Site Clearance	£27,933.00
2.0	Earthworks	£37,995.40
3.0	Pavement	£91,764.00
4.0	Drainage	£5,500.00
5.0	Signs and Markings	£10,100.00
6.0	Other	£33,250.00
		£232,536

CONTINGENCY 10%	£23,254
CIVILS TOTAL	£255,790

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE GYRATORY AND THE APPROACH LANES WILL BE RESURFACED

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham A27 / Grinstead Lane Roundabout 60m ICD**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A27 / Grinstead Lane Roundabout 60m ICD	**DATE:**	**11.11.21**
	DRG:	**5201-GP-10A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	8000.00	8,000.00
1.02	REMOVE CONCRETE KERBS	675.00	m	15.00	10,125.00
1.03	REMOVE EDGING KERB	298.00	m	3.00	894.00
1.04	REMOVE GUARD RAILINGS	189.00	m	60.00	11,340.00
1.05	REMOVE LIGHTING COLUMNS	10.00	ITEM	750.00	7,500.00
1.06	REMOVE GULLIES	11.00	No	450.00	4,950.00
1.07	REMOVE TRAFFIC SIGNS	24.00	No	350.00	8,400.00
1.08	REMOVE REFLECTIVE BOLLARDS	15.00	Nn	175.00	2,625.00
1.09	REMOVE BOLLARDS	5.00	No	250.00	1,250.00
					55,084.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	1231.00	Cum	22.00	27,082.00
2.02	EXCAVATE HARD AND DISPOSE	456.00	Cum	55.00	25,080.00
2.03	DISPOSE U/S	1687.00	Cum	50.00	84,350.00
2.04	FORMATION AND SUB-FORMATION	3214.00	Sqm	1.20	3,856.80
2.05	PLANE CARRIAGEWAY (40mm)	2650.00	Sqm	3.50	9,275.00
2.06	PLANE FOOTWAY (20mm)	300.00	Sqm	2.50	750.00
2.07	IMPORT CAPPING AND COMPACT	450.00	Cum	18.00	8,100.00
					158,493.80
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	336.00	Cum	25.00	8,400.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	1497.00	Sqm	22.00	32,934.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	1497.00	Sqm	24.00	35,928.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	4154.00	Sqm	18.00	74,772.00
3.05	CONCRETE KERBING	604.00	m	20.00	12,080.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	338.00	m	12.00	4,056.00
3.08	SUB BASE - FOOTWAY(150mm)	74.00	Cum	18.00	1,332.00
3.09	FOOTWAY SURFACE COURSE (20mm)	790.00	Sqm	8.00	6,320.00
3.10	FOOTWAY BINDER COURSE (50mm)	590.00	Sqm	11.00	6,490.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	50.00	Sqm	30.00	1,500.00
					183,812.00

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				

APPENDIX 9.7
BUDGET COST ESTIMATE FOR OFF-SITE HIGHWAY WORKS: ADL PROPOSED JUNCTION IMPROVEMENTS

4.01	GULLY UNITS	12.00	No	600.00	7,200.00
4.02	150mm SW PIPE	50.00	m	70.00	3,500.00
4.03	GULLY CONNECTIONS	12.00	No	500.00	6,000.00
4.05	MANHOLE	1.00	No	1500.00	1,500.00
					18,200.00

5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	5000.00	5000.00
5.02	BOLLARDS	5.00	No	600.00	3000.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	24.00	No	750.00	18000.00
5.04	ADS and POSTs	0.00	No	1250.00	0.00
					26,000.00

7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	7000.00	7,000.00
7.02	STREET LIGHTING COLUMN	13.00	No.	1800.00	23,400.00
7.03	LIGHTING DUCTING	250.00	m	20.00	5,000.00
7.04	TOPSOIL & SEED	806.00	Sqm	12.50	10,075.00
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	10000.00	10,000.00
					55,475.00

	SUMMARY	
	Preliminaries 15%	£66,238.47
1.0	Site Clearance	£55,084.00
2.0	Earthworks	£158,493.80
3.0	Pavement	£183,812.00
4.0	Drainage	£18,200.00
5.0	Signs and Markings	£26,000.00
6.0	Other	£55,475.00
		£563,303

CONTINGENCY 10%	£56,330
CIVILS TOTAL	£619,634

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE EXISTING GYRATORY AND THE APPROACH LANES WILL BE RESURFACED

THIS BUDGET DOES NOT INCLUDE THE COST OF ANY THIRD PARTY LAND PURCHASE REQUIRED TO DELIVER THE DESIGN

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

TRAFFIC & HIGHWAYS ENGINEERING LIMITED

NOTE OF MEETING

Subject:	Shoreham Cement Works		
Location:	MS Teams		
Date:	1st December 2021	Time:	12:30 – 14:00
ADL Ref:	ADL/AP/ls/5201		

In Attendance:	SDNPA	-	Lucy Howard (LH)
	SDNPA	-	Alex Pringle (AP)
	WSCC	-	Guy Parfect (GP)
	WSCC	-	Olamide Olayinka (OO)
	ADL	-	Amol Pisal (AP)
	ADL	-	Alex Painting (AEP)

1. A27 – merge and diverge lane capacity assessment to be undertaken.

2. Assessment should include sustainable transport mitigation impacts on the junctions. These mitigations could be in the form of increase in bus frequency, direct bus services (or with one change to neighbouring towns), bus stops on site and improvement to pedestrian/cycle track to South Downs Path.

3. Reduction in vehicular trips as a result of sustainable transport mitigation to be taken into account. Based on Sustainable Travel Towns, this could account for 2% to 4% in reduction in trips. Guy confirmed that this has been adopted in Local Plan studies in West Sussex.

   ADL proposed to discount 2% of proposed development trips across the surveyed junctions.

4. AP confirmed that except for Lancing Manor Roundabout highway improvements, all other junction improvements are within adopted highway.

5. Sustainable Transport Mitigation should be those that the development would actually be able to provide. The development should not be dependent on possible measures that are likely to be put forward by third parties.

6. Modelling assessment should be based on RFCs, queues and average delay per vehicle, and not junction RFCs and Queues.

7. Guy stated that drivers tend to notice delay over 30 seconds. Delay over 2 minutes represents a congested situation and one should avoid delay over 3 minutes.

8. Whilst increase in delays on Washington Roundabout as a result of SCW developments is marginal it is a key junction and hence WSCC would expect this junction to be improved.

APPENDIX 1.10
NOTES OF MEETING:
TECHNICAL NOTE 3

9. WSCC are working on their own scheme at Washington Roundabout and a proportion of contribution as per the cost estimate within TN3 should be allocated towards.

10. Guy confirmed that there would be no need to improve the A283/Water Lane crossroads as any improvements are likely to result in an increase in rat-running along Water Lane which would not be desirable.

11. A283 staggered junction with B2135 and Horsham Road to be assessed. Guy to provide traffic flows from strategic model. Would be included in next iteration of TN3.

12. Cost estimates to include optimism bias.

13. Guy confirmed that WSCC would not be looking to make any physical improvements to the urban roundabouts to the south of the A27 i.e. A283/Upper Shoreham Road and A283/A259. The contribution stated in TN3 towards the physical improvements could be put forward towards improving sustainable transport infrastructure in the area instead.

14. Site access – a meeting is to be held on 8th December with the SDNPA to discuss site access options, with a view to discussing a three-armed roundabout option.

15. A three-armed roundabout option would only provide access to the eastern part of the site. Therefore, based on ADL's initial assessment, there will be a need for a second three-armed roundabout access for the western part of the site.

16. There is an option to provide left in left out junction for western part of the site instead of three-armed roundabout. But this would require widening of the tunnel. Calculating the cost implications of widening of the tunnel is beyond ADL's scope of works.

TECHNICAL NOTE 4

SHOREHAM CEMENT WORKS

A27 MERGE/DIVERGE ASSESSMENT

(ADL REF: 5201, 07th DECEMBER 2021)

REVISION A

Merge/Diverge Layout Requirement Assessment

The merge/diverge capacity assessment has been undertaken in accordance with CD122 Geometric design of grade-separated junction.

The methodology adopted has been to consider whether current merge and diverge layout at the A27 slip roads are able to accommodate future flows for the 2033 Baseline Scenario and all four scenarios associated with Shoreham Cement Works project, in their current configuration or whether alternative configurations are required.

The merge/diverge design classification are categorised in alphabetical order based on the relationship between mainline volume of traffic against the merge/diverge volume of traffic; with layout Option A being the simplest design, accommodating minor merge/diverge flows, whilst layout Option B being the complex design, accommodating high levels of merge/diverge flows.

Table A shows the flows for the A27 slip roads.

Table A A27 Merge/Diverge Flows

Approach	Direction	2033 Baseline Case		SCW Scenario 1		Scenario 2		Scenario 3		Scenario 4	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
E/B Diverge	Mainline	2620	2493	2620	2493	2620	2493	2620	2493	2620	2493
	Diverge	484	455	556	509	552	495	512	490	552	472
E/B Merge	Mainline	2620	2493	2620	2493	2620	2493	2620	2493	2620	2493
	Merge	1217	990	1292	1049	1271	1042	1260	1037	1244	1043
W/B Diverge	Mainline	2386	2415	2386	2415	2386	2415	2386	2415	2386	2415
	Diverge	949	1598	1013	1659	1004	1642	980	1641	999	1617
W/B Merge	Mainline	2386	2415	2386	2415	2386	2415	2386	2415	2386	2415
	Merge	461	440	541	545	525	539	500	499	491	506

ADL House, Oaklands Business Park, Armstrong Way, Yate, Bristol BS37 5NA | Tel: 01454 332 100 | Email: info@adltraffic.co.uk | Web: www.adltraffic.co.uk
Company No. 3121125 | VAT Registration No. 674 4017 36

The results of the assessment for the A27 merge/diverge layout requirements are summarised in **Table B** and in **Appendix A**.

Table B A27 Merge/Diverge Assessment

Approach	Existing Layout	2033 Baseline Case		Scenario 1		Scenario 2		Scenario 3		Scenario 4	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
E/B Diverge	A	A	A	A	A	A	A	A	A	A	A
E/B Merge	D	E	D	E	D	E	D	E	D	E	D
W/B Diverge	C	C	D	C	D	C	D	C	D	C	D
W/B Merge	B	A	A	A	A	A	A	A	A	A	A

Table B shows that eastbound diverge is appropriately designed to accommodate both baseline flows (which comprise Local Plan allocation flows, committed development flows and background traffic growth), as well as all four development scenarios associated with the Shoreham Cement Works Study.

Table B also shows that the eastbound merge which is currently designed as lane gain layout (Layout D) would need to be modified to accommodate lane gain with a ghost island with either an offside or nearside merge in AM peak hour. It should however be noted that this mitigation is required in both 2033 baseline scenarios as well as SCW development scenarios. In PM peak hour, the existing layout appears to be of higher provision than the required layout.

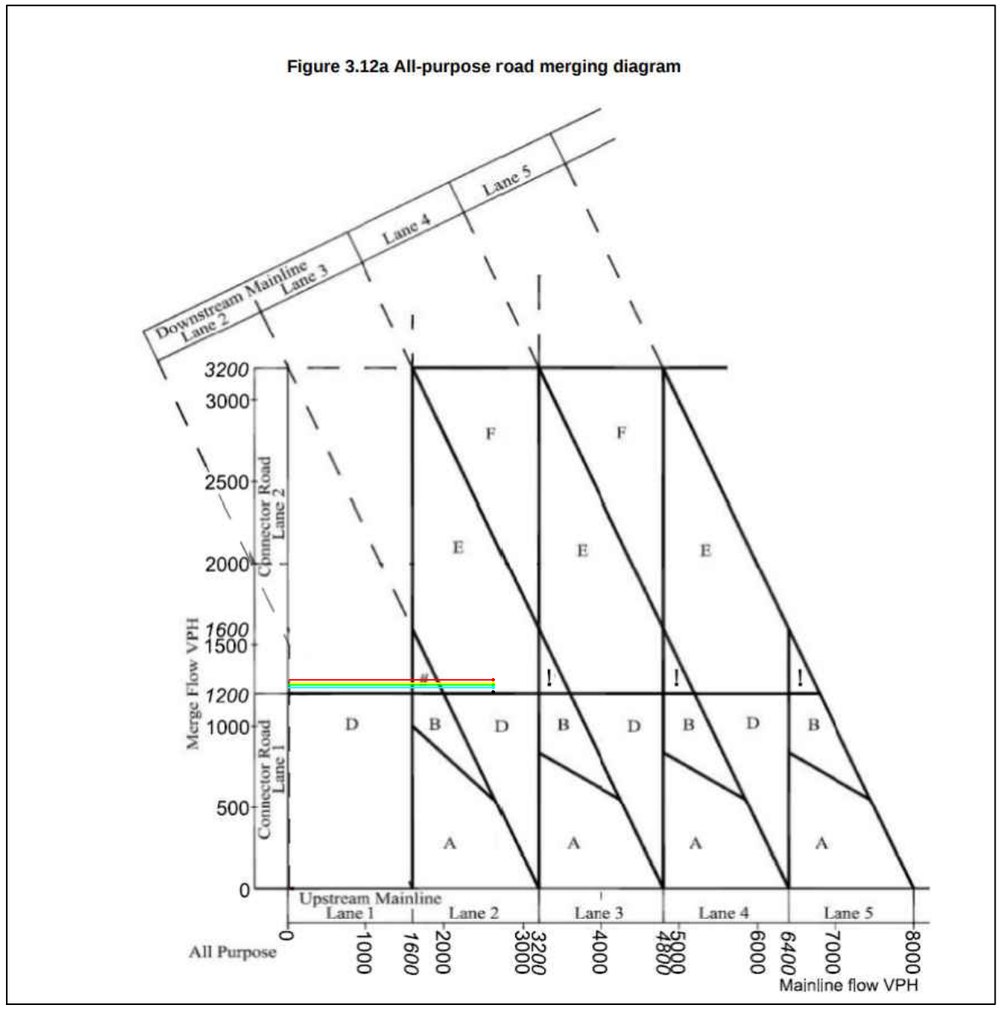
Similarly, westbound diverge appears to require an upgrade from its current 'lane drop with 1-lane connection road' type arrangement (i.e., layout Option C) to a ghost island lane drop type arrangement (i.e., layout Option D) in both 2033 baseline scenario and SCW development scenarios in PM peak hour. In AM peak hour, the existing layout appears to have appropriate provision.

The westbound merge appears to be designed to a higher provision i.e., parallel merge (Layout B) than what is required.

As such, **Table B** demonstrates that the required merge/diverge type does not alter between the 2033 baseline scenario and SCW development scenarios i.e., SCW development scenarios do not require any mitigation over and above what would be required for the 2033 baseline scenario.

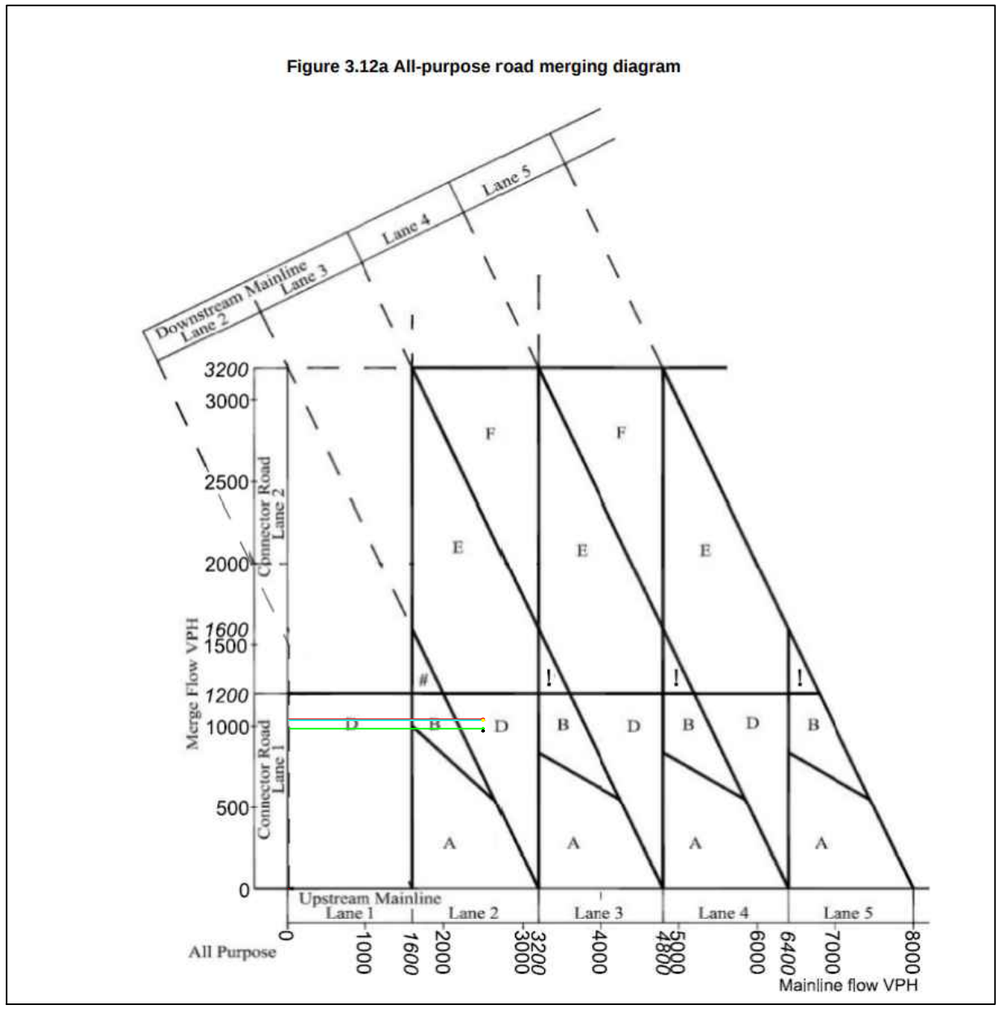
Eastbound Merge

AM Eastbound Merge



2033 Baseline Scenario - E
SCW Scenario 1 - E
SCW Scenario 2 - E
SCW Scenario 3 - E
SCW Scenario 4 - E

PM Eastbound Merge



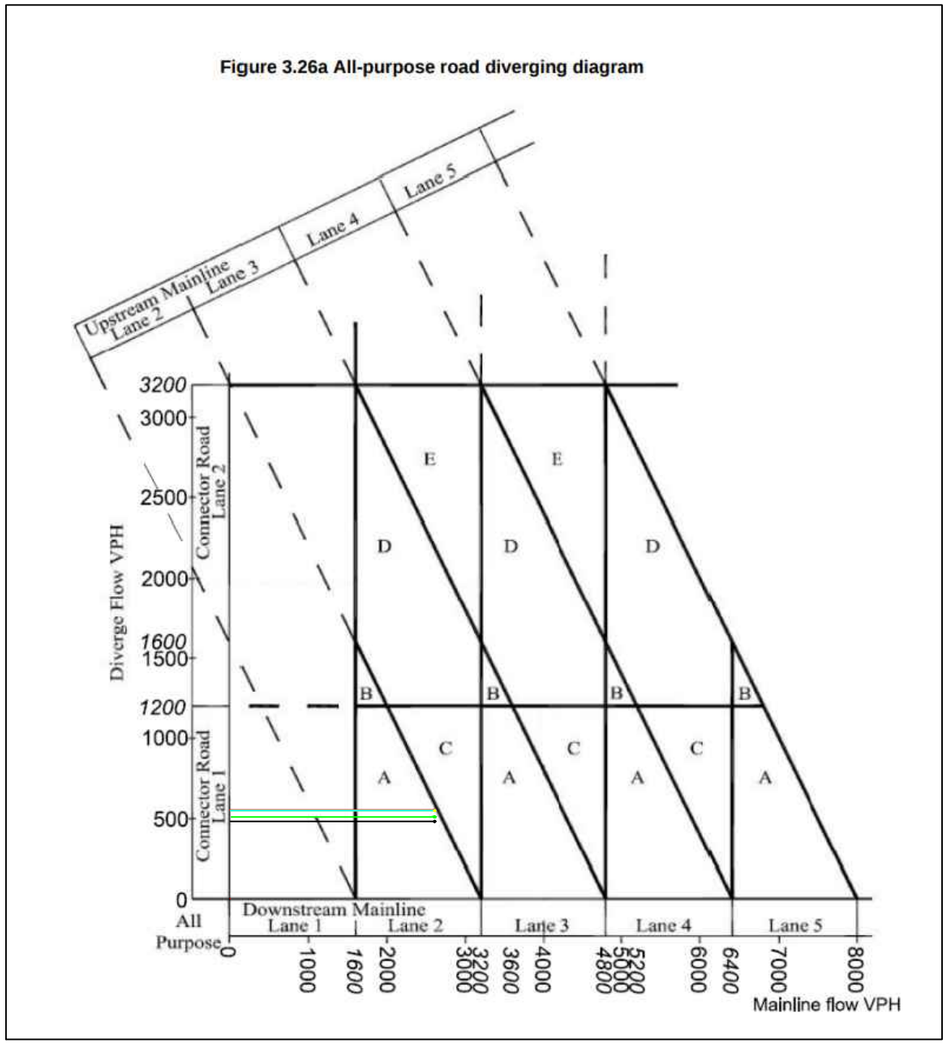
2033 Baseline Scenario - D
SCW Scenario 1 - D
SCW Scenario 2 - D
SCW Scenario 3 - D
SCW Scenario 4 - D

2033 Baseline
SCW Scenario 1
SCW Scenario 2
SCW Scenario 3
SCW Scenario 4

APPENDIX A
MERGE/DIVERGE
ASSESSMENT PLAN

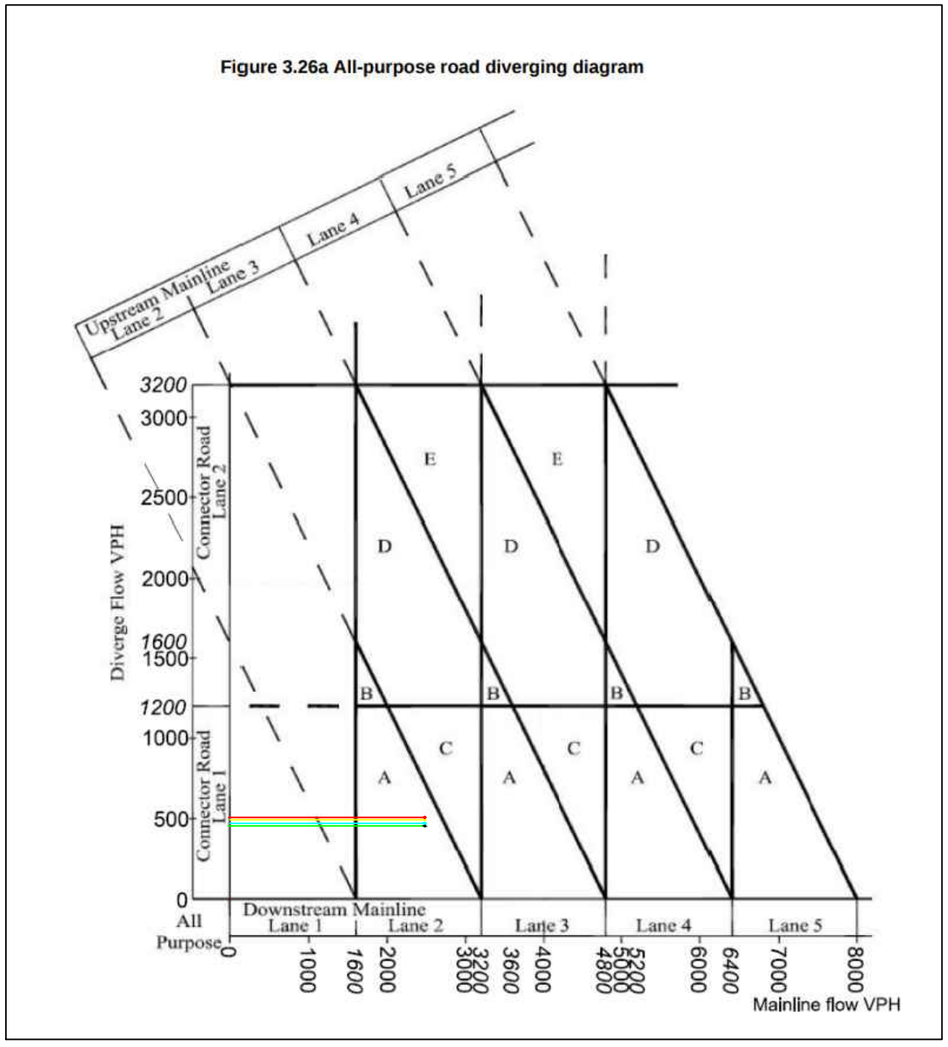
Eastbound Diverge

AM Eastbound Diverge



2033 Baseline Scenario - A
SCW Scenario 1 - A
SCW Scenario 2 - A
SCW Scenario 3 - A
SCW Scenario 4 - A

PM Eastbound Diverge

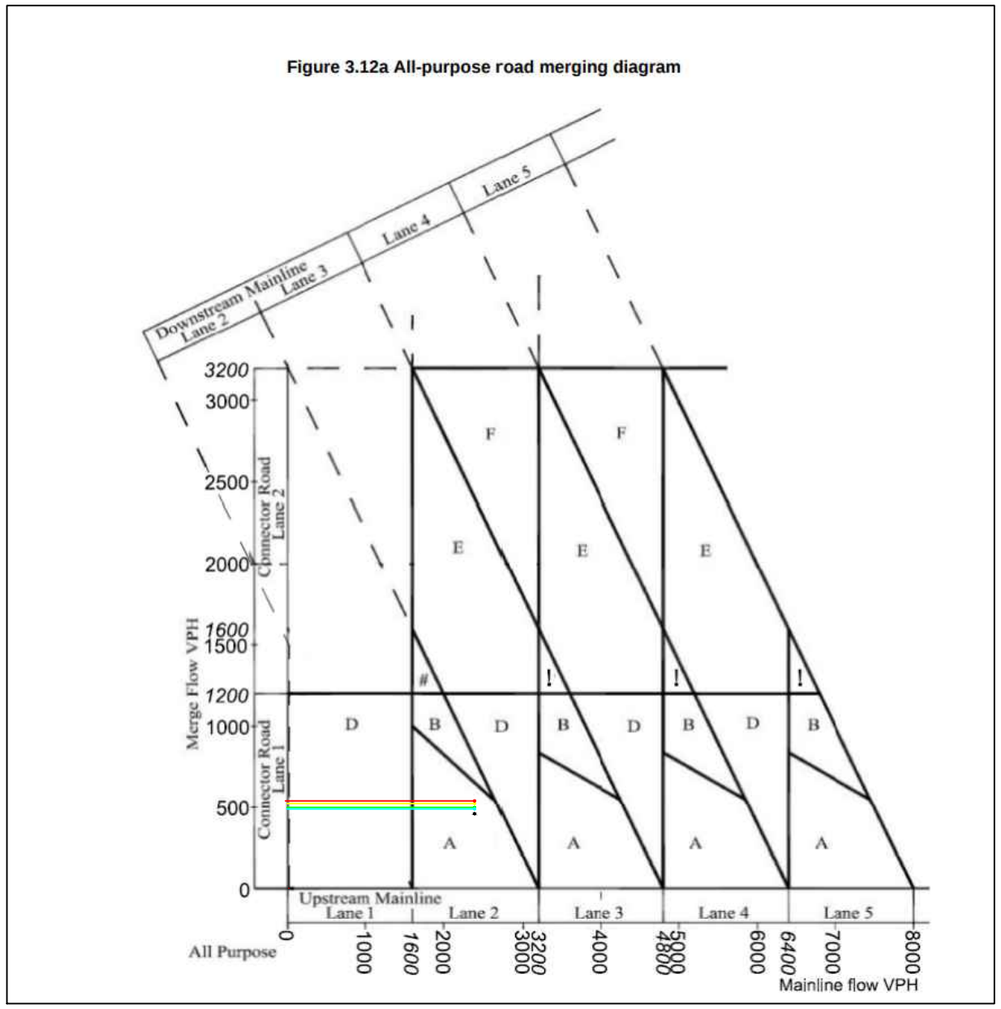


2033 Baseline Scenario - A
SCW Scenario 1 - A
SCW Scenario 2 - A
SCW Scenario 3 - A
SCW Scenario 4 - A

2033 Baseline
SCW Scenario 1
SCW Scenario 2
SCW Scenario 3
SCW Scenario 4

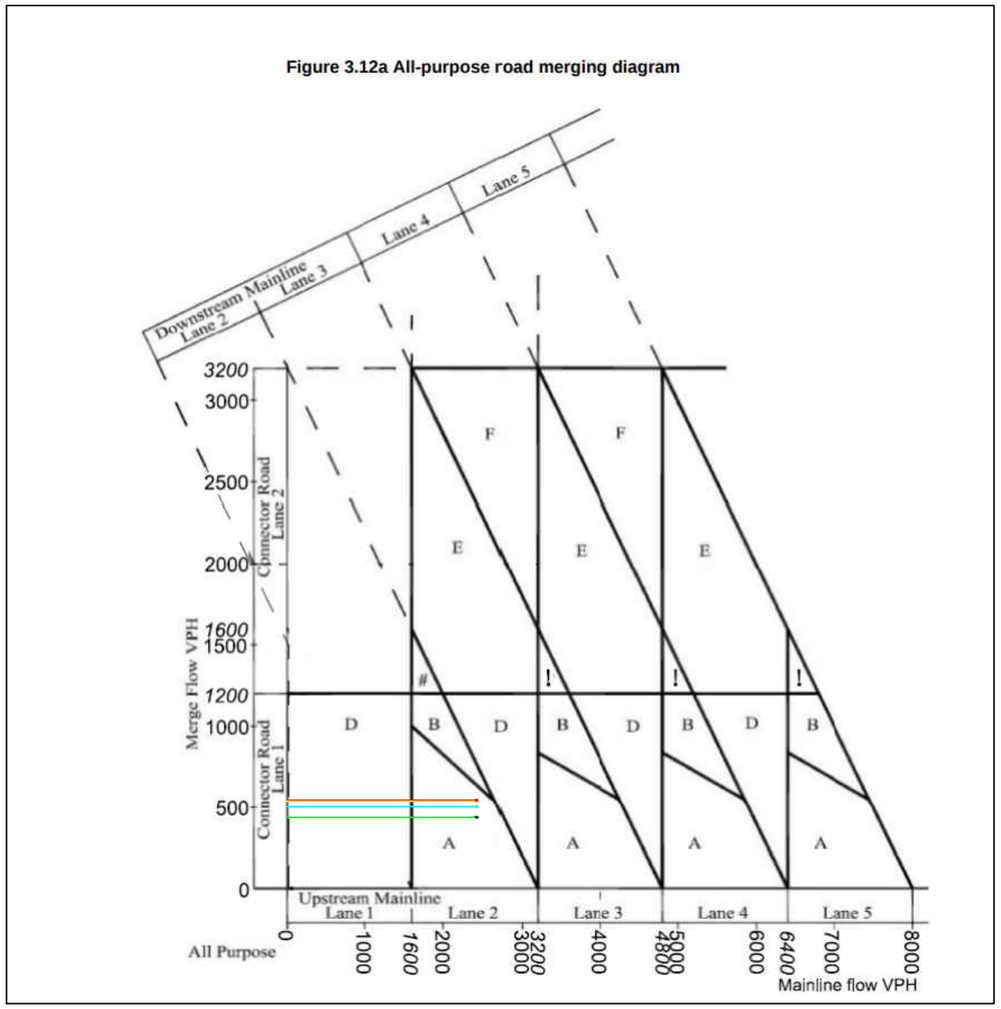
Westbound Merge

AM Westbound Merge



2033 Baseline Scenario - A
SCW Scenario 1 - A
SCW Scenario 2 - A
SCW Scenario 3 - A
SCW Scenario 4 - A

PM Westbound Merge

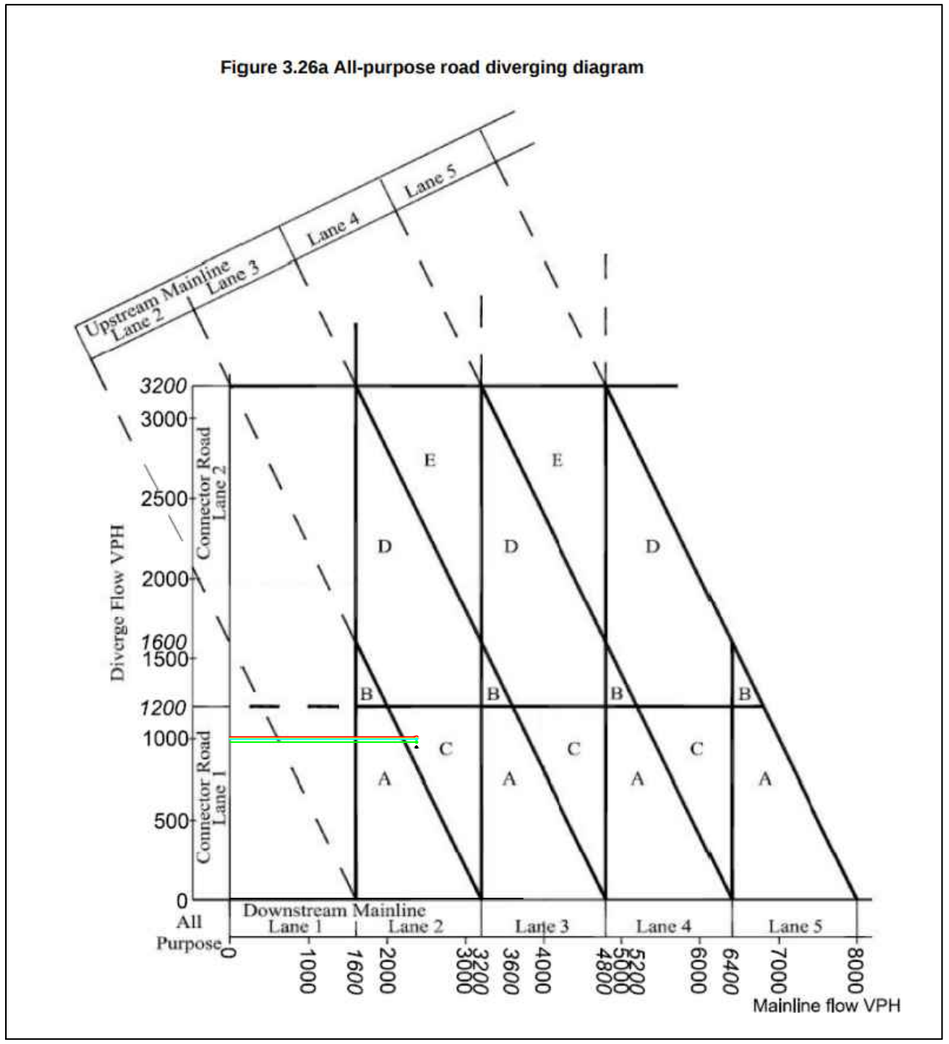


2033 Baseline Scenario - A
SCW Scenario 1 - A
SCW Scenario 2 - A
SCW Scenario 3 - A
SCW Scenario 4 - A

2033 Baseline
SCW Scenario 1
SCW Scenario 2
SCW Scenario 3
SCW Scenario 4

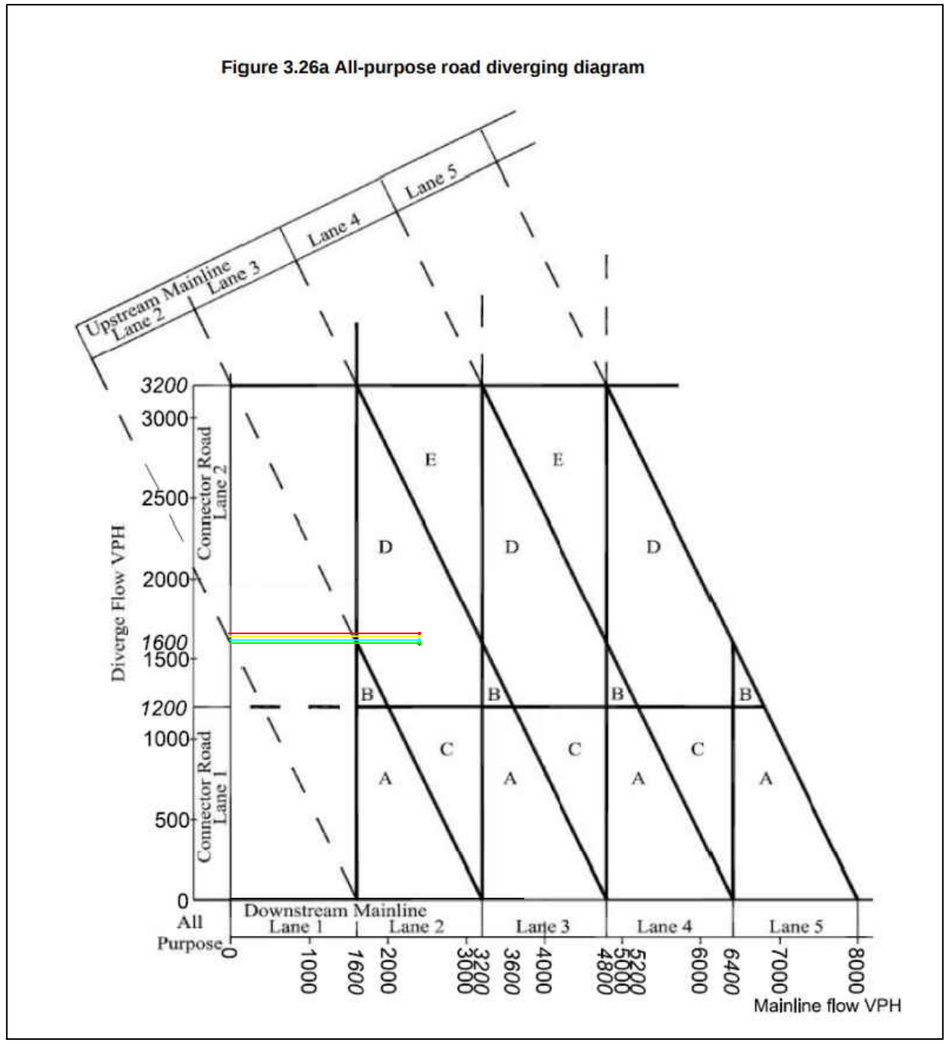
Westbound Diverge

AM Westbound Diverge



2033 Baseline Scenario - C
SCW Scenario 1 - C
SCW Scenario 2 - C
SCW Scenario 3 - C
SCW Scenario 4 - C

PM Westbound Diverge



2033 Baseline Scenario - D
SCW Scenario 1 - D
SCW Scenario 2 - D
SCW Scenario 3 - D
SCW Scenario 4 - D

2033 Baseline
SCW Scenario 1
SCW Scenario 2
SCW Scenario 3
SCW Scenario 4

Alex Painting

From: Guy Parfect <guy.parfect@westsussex.gov.uk>
Sent: 16 February 2022 17:49
To: Amol Pisal; Cleaver, Elizabeth; Planning SE; Bowie, David; Olamide Olayinka; Lucy Howard; Alex Pringle
Cc: Alex Painting
Subject: RE: CD116 Compliance Checks

Follow Up Flag: Follow up
Flag Status: Completed

Hi Amol and all

I have now obtained advice from Henry Moyo in the County Council's highways team regarding this. Henry says:

"I have had the opportunity to review your email below and its attachments and I have the following comments.

If they haven't already done so, National Highways will need to provide written confirmation that they are happy for WSCC to review the design, including on lengths of road that are under their jurisdiction. Do we need to offer them the final version of what we accept for them to formally accept it as well so that both WSCC and National Highways are in agreement at the planning application stage and beyond? I suspect NH will be consultees as well at the planning application stage.

Initial comments are as follows.

- I note that the designers used the speed limit to calculate forward visibility. In my view, the SSD should be judged against the speed that cars are driving due to the curvature – see Equation from Annex B of "Provision of Road Restraint Systems on Local Authority Roads" UK Roads Liaison Group and DfT 2011. It is unlikely that motorists will be driving at national speed limit on the slip roads. Alternatively, measured speeds might inform the design.
- The designers will need to review accidents statistics at the roundabout and their possible causes. There appears to be a few injury accidents which are almost exclusively to do with the shallow entry angles. Approaching drivers are looking over their shoulders at circulating traffic to anticipate their go/no-go decision and then colliding with drivers waiting at the give way line. This could be effectively countered by the use of visibility screening at arms 1, 3 and 4 like the ones WSCC installed at A24 Southwater. Drivers would then be more likely to look where they are going until they are much closer to the give way line. I note that the proposals for Arm 2 provide a major improvement in entry angle to the extent that such screening is not necessary here. However, let's let the designer decide what measures they propose to counter accidents they will identify after analysing the accident trends.

- Looking at the Design Audit spreadsheet, the designers seem to have captured most of them and I haven't picked up additional ones. However, what they have not provided is a plan that shows the available forward visibility splays and the required splays. They will also need to identify the constraints that stand in the way of achieving the required forward visibility splays.

- In my view, the road safety audit needs to be undertaken and submitted to us to inform the design review.

See further comments below in red."

[GP text to HM in black; HM response in red]

For the A283/A27 slips roundabout ADL have identified the following departures:
Arm 3 Exit kerb radius to A27 SE – as existing: straight – this is an existing situation. No accidents here so we can't see a problem with this
Visibility on approach:
Arm 1 A283 NW Existing improved from 78m to 94m - The accidents at this arm are attributable to the substandard entry angle. Possibly install visibility screening but designers to analyse accidents and work out what measures can be incorporated.
Arm 2 A27 NE Doesn't meet requirement for SSD to comply with CD109 which for derestricted dual carriageway road is 295m (one step 215m) & reduced on existing 107m by 11m to 96m: but approach speeds constrained by earlier bends – ADL propose transverse yellow markings - The accidents at this arm are attributable to the substandard entry angle. Possibly install visibility screening. SSD should be judged against the speed that cars are driving due to the curvature – see Equation from Annex B of "Provision of Road Restraint Systems on Local Authority Roads" UK Roads Liaison Group and DfT 2011
Arm 3 A27 SE Doesn't meet requirement for SSD to comply with CD109 which for derestricted dual carriageway road is 295m (one step 215m) but increased on existing 50m by 19m to 69.4m: approach speeds constrained by earlier bends - SSD should be judged against the speed that cars are driving due to the curvature as above. The accidents at this arm are attributable to the substandard entry angle. Possibly install visibility screening.

I hope that this is helpful in advising how to bring the proposals forward.

Kind regards

Guy

Guy Parfect | Senior Planner, Planning Services, Economy Planning and Place Directorate, West Sussex County Council
Location: Ground Floor, Northleigh, County Hall, West Street, Chichester, PO19 1RH
Internal: 26442 | External: +44 (0) 330 2226442 | E-mail: guy.parfect@westsussex.gov.uk

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From: Amol Pisal <Amol@adltraffic.co.uk>
Sent: 18 January 2022 15:40
To: Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>; Planning SE <planningse@highwaysengland.co.uk>; Bowie, David <David.Bowie@highwaysengland.co.uk>; Guy Parfect <guy.parfect@westsussex.gov.uk>; Olamide Olayinka <Olamide.Olayinka@westsussex.gov.uk>; Lucy Howard <Lucy.Howard@southdowns.gov.uk>; Alex Pringle <Alex.Pringle@southdowns.gov.uk>
Cc: Alex Painting <alex@adltraffic.co.uk>
Subject: CD116 Compliance Checks

Dear All

As you know, yesterday we emailed you on the validation of A283/A27 slips roundabout. We would greatly appreciated a response from you at your earliest convenience due to the AAP timescales.

This email is regarding the CD116 compliance checks.

Please see attached the following:

- Geometric Design Check spreadsheet which contains 2 tabs – one for A27/Grinstead Lane roundabout and the other for A283/A27 slips roundabout
- Drawing 5201-GP-07C which shows our proposed improvements to the A283/A27 slips roundabout
- Drawing 5201-GP-10D which shows our proposed improvements to the A27/Grinstead Lane roundabout

As you will see, our roundabout improvements meet CD116 requirement for the majority of the parameters. For others, we have demonstrated that we would not be worsening the junction safety when compared to the existing situation (for A283/A27 slips roundabout) and to the permitted NMF's scheme for A27/Grinstead Lane roundabout.

Also attached is my email to you all of 7th December 2021 which contains our A27 merge/diverge assessment using CD123 guidance.

We consider that as these are outline drawings for the initial AAP assessment, we consider that Stage 1 RSA and WCHAR could be undertaken either at individual planning application stage or the later stage of AAP. I believe that similar approach was taken for Horsham Transport Study (Local Plan Preferred Scenario Transport Assessment) which was prepared in May 2021.

As always, a speedy response to the above would be most appreciated. Happy to discuss any aspect of this email over the phone. My mobile number is provided in the email signature.

Many thanks.

Kind regards

Amol Pisal | Managing Director

TRAFFIC & HIGHWAYS ENGINEERING LIMITED

ADL House | The Oaklands Business Park | Armstrong Way | Yate | Bristol | BS37 5NA

M 0752 54 77819| T 01454 332100 | amol@adltraffic.co.uk | www.adltraffic.co.uk (-> m365.eu.vadesecure.com)

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APPENDIX 2.0

SITE LOCATION



APPENIDX 2.0
SITE LOCATION

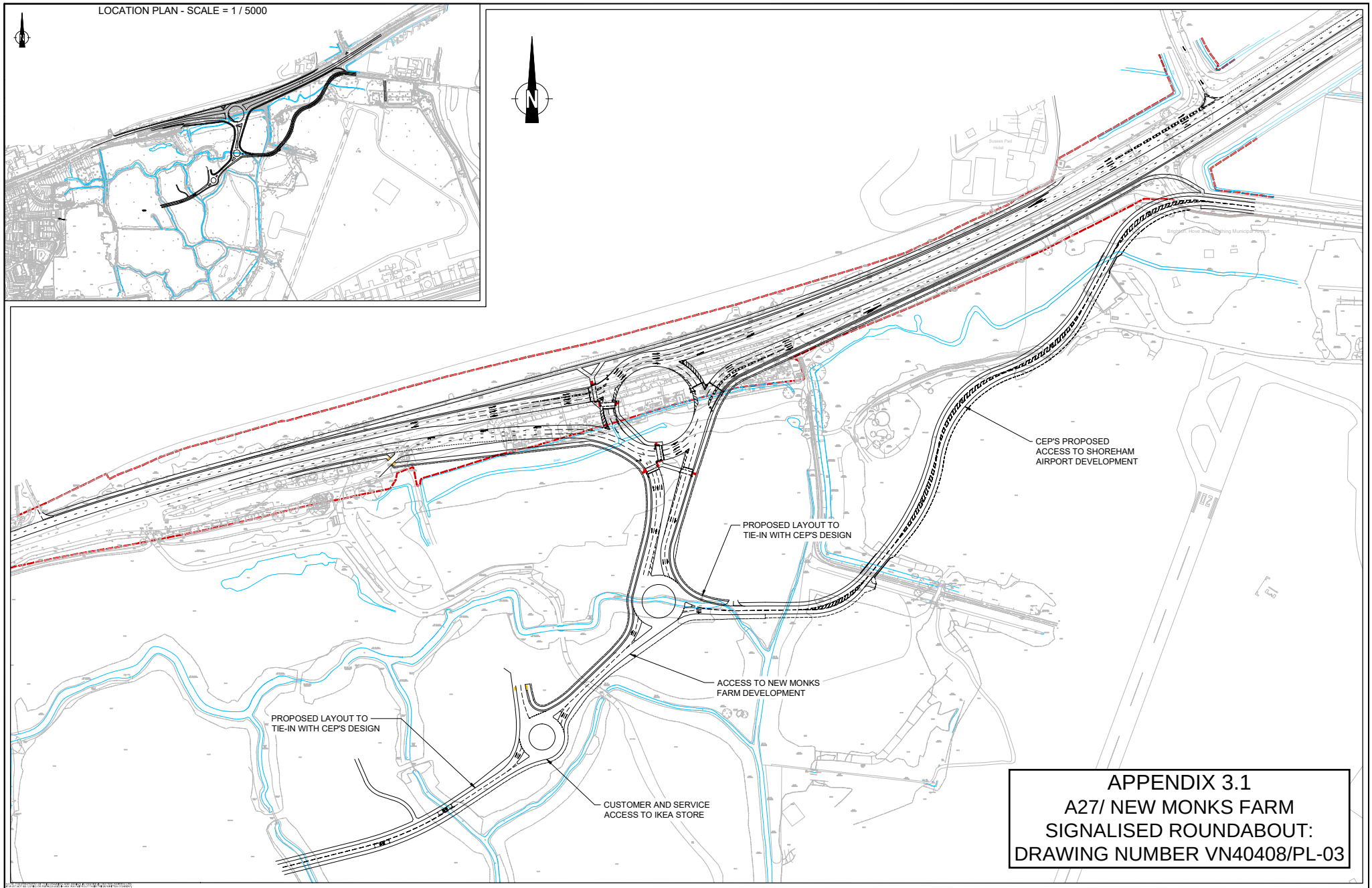
APPENDIX 3.0

COMMITTED HIGHWAY WORKS

3.1 A27 / New Monks Farm Signalised Roundabout: Drawing Number VN40408/PL-015 (Revision A)

3.2 A27 / New Monks Farm Signalised Roundabout: Drawing Number VN201557/PL-03 (Revision J)

3.3 Lancing Manor Roundabout: Drawing Number VN40408/PL-010 (Revision D)



APPENDIX 3.1
A27/ NEW MONKS FARM SIGNALISED ROUNDABOUT: DRAWING NUMBER VN40408/PL-03

REV.	DETAILS	DRAWN	CHECKED	DATE	REV.	DETAILS	DRAWN	CHECKED	DATE
A	Airport link road realigned to latest CEP 48/17 layout	DB	PM	25.05.17	-	-	-	-	-

Notes:
1.
2.
3.

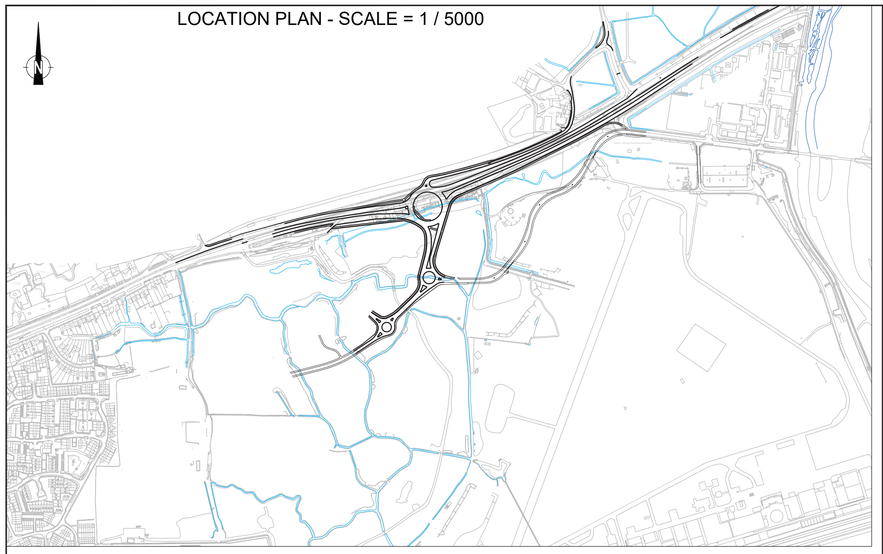
KEY

HIGHWAY BOUNDARY

DRAFT

PROJECT: New Monks Farm, Lancing	CLIENT: New Monks Farm Development
DRAWING TITLE: Proposed A27 Old Shoreham Road Improvements Development Access / Sussex Pad Works	vectos highway infrastructure specialists Oxford Place, 61 Oxford St, Manchester, M1 6EQ t: 0161 228 1008 e: manchester@vectos.co.uk
DRAWN: DB · CHECKED: CH · DATE: Jun. 2017 · SCALE: 1:1000 at A0	DRAWING NUMBER: VN40408/PL-015 · REVISION: A

LOCATION PLAN - SCALE = 1 / 5000



APPROXIMATE LOCATION FOR NORTH GATEWAY FEATURE

PROPOSED SUSSEX PAD LINK ROAD ALIGNED ADJACENT LANCING COLLEGE (FORMERLY SUSSEX PAD HOTEL)

COOMBES ROAD JUNCTION MODIFIED

BOUNDARY HEDGE TO BE REMOVED FOR NEW LANCING COLLEGE LINK ROAD

ACCESS TO CAR PARK RECONFIGURED TO NEW LINK ROAD TO PROVIDE JUNCTION VISIBILITY

BUILD-OUT REFUGE FOR SOUTHBOUND PRIORITY

CYCLISTS TO JOIN CARRIAGEWAY EAST OF PRIORITY BUILD-OUT, FOOTWAY REDUCED TO 2m WIDTH

APPROXIMATE LOCATION FOR SOUTH GATEWAY FEATURE

PROPOSED NORTH ARM OFF A27 ROUNDABOUT

3m SHARED FOOT/CYCLEWAY PLUS 500mm BUFFER STRIP ADJACENT CARRIAGEWAY

A27 SHOREHAM BYPASS

BUILD-OUT REFUGE FOR WESTBOUND PRIORITY

PROPOSED FOOTPATH/BRIDLEWAY ALONGSIDE A27 NORTHERN BOUNDARY TO BE DELIVERED AS PER PLANNING REFERENCE SDNP/18/00434/FUL

SUSSEX PAD MINOR ROAD JUNCTIONS CLOSED TO MOTOR VEHICLES

PROPOSED LAYOUT TO TIE-IN WITH CEP'S DESIGN

CEP'S PROPOSED ACCESS TO SHOREHAM AIRPORT DEVELOPMENT

ACCESS TO NEW MONKS FARM DEVELOPMENT

CUSTOMER AND SERVICE ACCESS TO IKEA STORE

PROPOSED LAYOUT TO TIE-IN WITH CEP'S DESIGN

APPENDIX 3.2
A27 / NEW MONKS FARM SIGNALISED ROUNDABOUT: DRAWING NUMBER VN201557/PL-03 (REVISION J)

NOTE: THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN VECTOS (NORTH) LTD. IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR PRIOR WRITTEN CONSENT.

REV	DETAILS	DRAWN	CHECKED	DATE
A	Changes to 4th arm alignment thru Lancing College Nursery	DLB	PW	17.06.20
B	The Drive/Coombes Rd junction re-prioritised; NMU link added to A27	DLB	PW	30.06.20
C	Proposed footpath between The Drive and Coombes Rd removed	DLB	PW	7.07.20
D	Traffic calming features, eg. gateways, colour marks added to 4th arm	DLB	PW	5.08.20
E	Alignment adjusted to topo survey; speed cushion added outside LCN	DLB	PW	8.09.20
F	Build-outs amended for staggered priority to 4th arm	DLB	PW	12.10.20
G	Anti-dazzle screen added between 4th arm and A27 EB reserve	DLB	PW	18.12.20
H	Amendments to 4th arm proposed traffic calming measures	DLB	PW	6.04.21
J	'keep clear' markings added to circ adjacent 4th arm entry	DLB	PW	26.05.21

Notes:
1.
2.

KEY
- HIGHWAY BOUNDARY
- VEHICLE RESTRAINT SYSTEM
- ANTI-DAZZLE SCREEN

DRAFT

PROJECT: New Monks Farm, Lancing

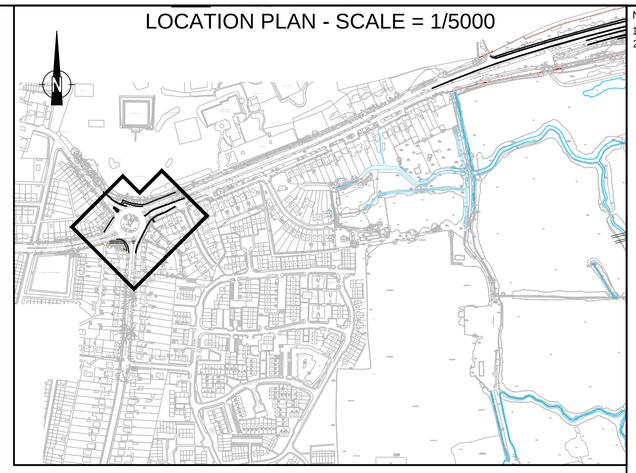
CLIENT: New Monks Farm Development

DRAWING TITLE: Proposed A27 Old Shoreham Road Improvements Development Access & Sussex Pad via Lancing College

vectos highway infrastructure specialists
Oxford Place, 61 Oxford St, Manchester, M1 6EQ
t: 0161 228 1008 e: manchester@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALE:	DRAWING NUMBER:	REVISION:
DB	PW	Mar 2020	1:1000 at A0	VN201557/PL-03	J

LOCATION PLAN - SCALE = 1/5000



Notes:
1.
2.

A27 UPPER BRIGHTON ROAD

A27 OLD SHOREHAM ROAD

A2025 GRINSTEAD LANE

MANOR ROAD

DRAFT

REV.	DETAILS	DRAWN	CHECKED	DATE
D	Changes to RSA1 Design Response recommendations	DLB	MS	19-03-18
C	Changes to RSA1 recommendations	DLB	CH	6-03-18
B	Changes to HE comments	DLB	CH	25-01-18
A	Manor Rd entry flare widened for 3rd lane	DLB	CH	13-12-17

CLIENT:

New Monks Farm Development

PROJECT:

New Monks Farm, Lancing

DRAWING TITLE:

A27 / Grinstead Lane
Junction Improvements

SCALES:

1:250 at A1

DRAWN:	CHECKED:	DATE:
DB	PW	Nov.2016

APPENDIX 3.3
LANCING MANOR ROUNDABOUT:
DRAWING NUMBER VN40408/PL-010
(REVISION D)

vectos
transport planning specialists

4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ
0161 228 1008 e: manchester@vectos.co.uk

DRAWING NUMBER: VN40408/PL-010

REVISION: D

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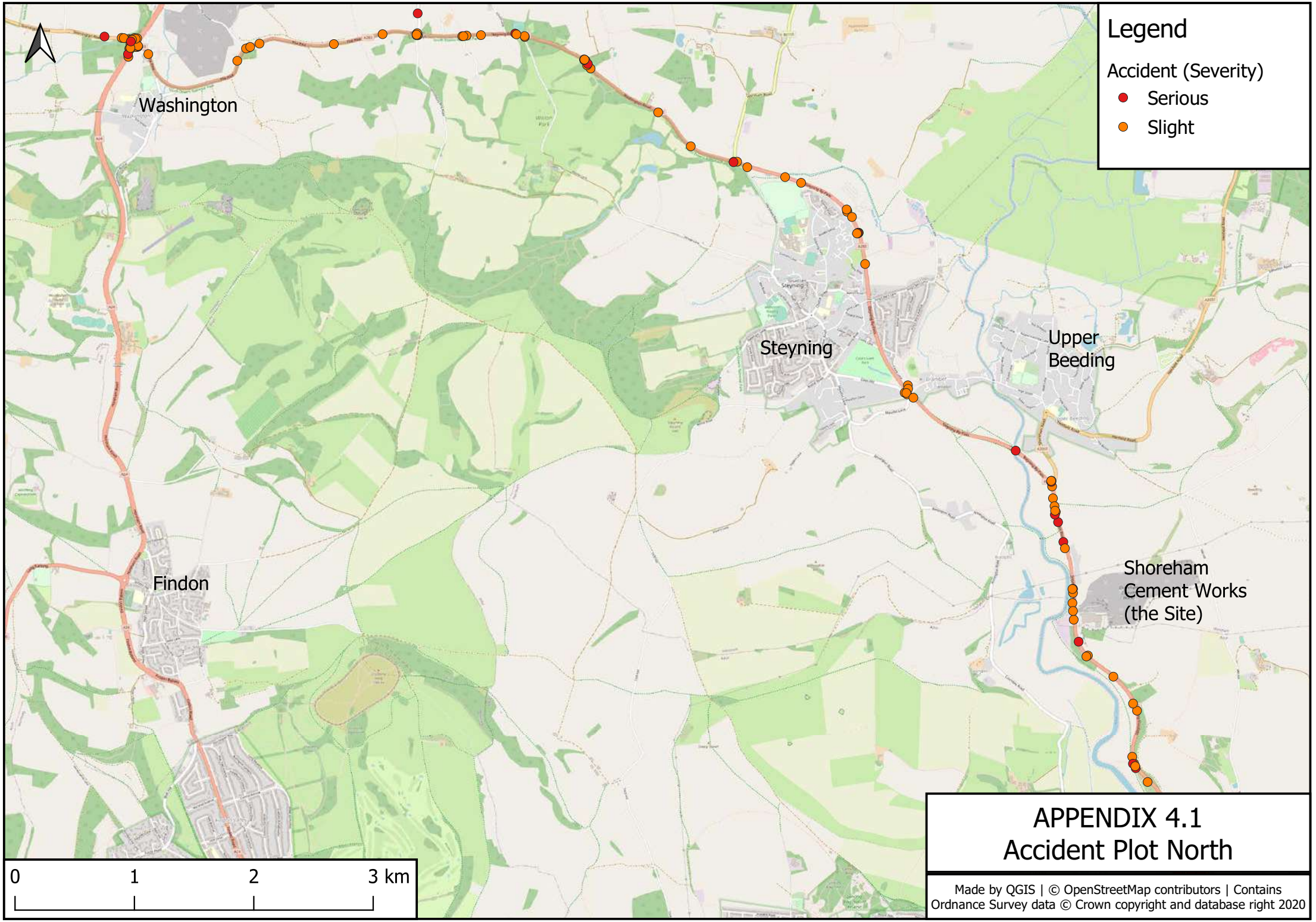
APPENDIX 4.0

ROAD SAFETY

4.1	Accident Plot - All
4.2	Official Accident Summary Report
4.3	Collision Cluster: Accident Plot
4.4	Collision Cluster: Full Reports


Legend
Accident (Severity)
Serious
Slight
Washington
Steyning
Upper Beeding
Findon
Shoreham Cement Works (the Site)
0
1
2
3 km
APPENDIX 4.1
Accident Plot North
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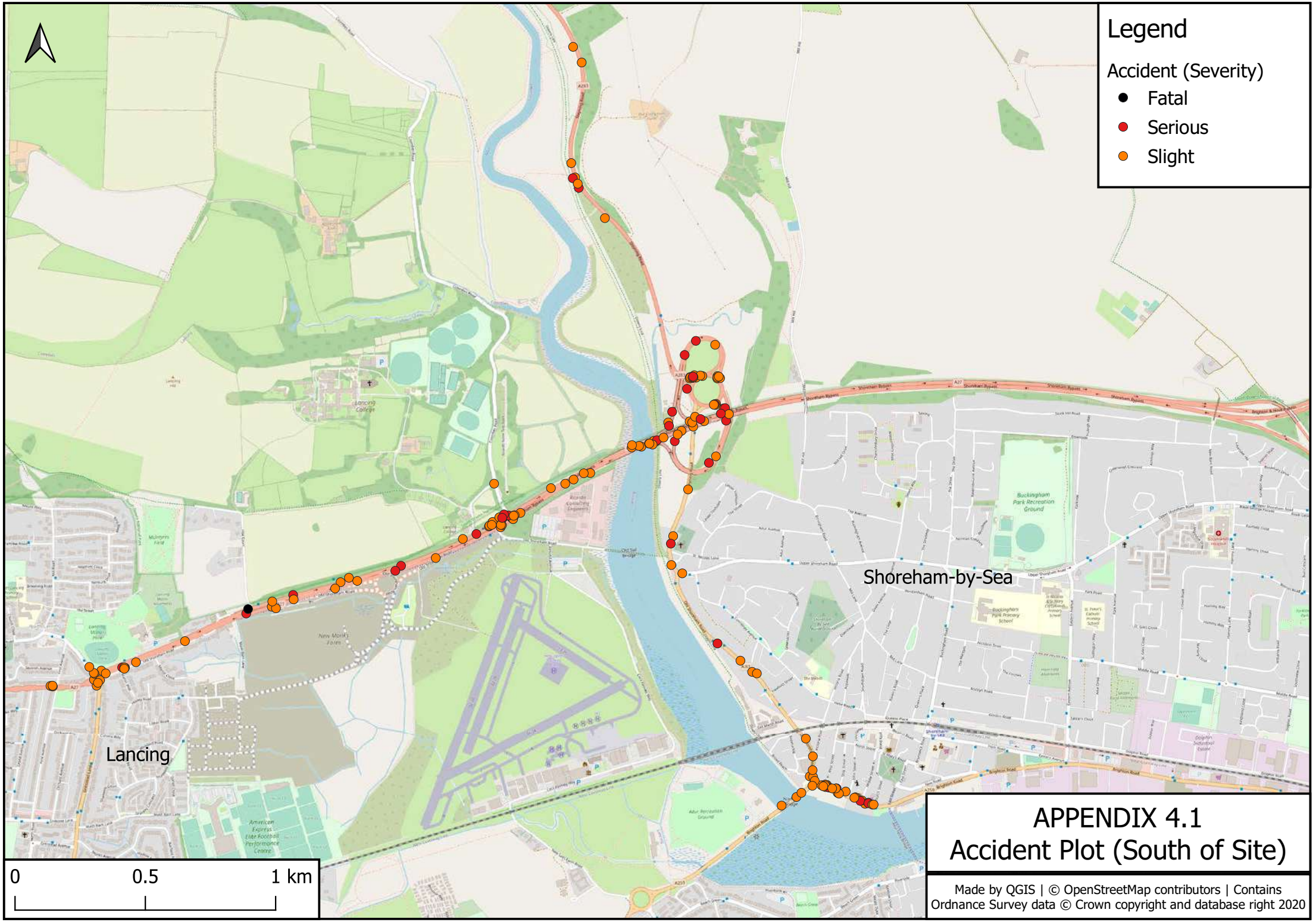

APPENDIX 4.1
Accident Plot (South of Site)

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PIA Search Ref 21092 - A283 - A27 - 5yrs to 31 Mar 2020

Accident Date BETWEEN '01-Apr-2015' AND '31-Mar-2020' AND Accident Severity IN LIST 1,2,3

APPENDIX 4.2
OFFICIAL ACCIDENT
SUMMARY REPORT

ACCIDENT SEVERITY UPTO 2020

	2015	2016	2017	2018	2019	2020	Total
Fatal	0	0	1	0	0	0	1
Serious	10	11	6	9	12	4	52
Slight	38	52	41	36	43	6	216
Damage	0	0	0	0	0	0	0
Total	48	63	48	45	55	10	269

ACCIDENTS BY MONTH AND YEAR UPTO 2020

	2015	2016	2017	2018	2019	2020	Total
January	0	6	3	3	2	6	20
February	0	3	3	4	4	3	17
March	0	7	4	2	3	1	17
April	6	4	2	5	4	0	21
May	6	2	3	2	8	0	21
June	6	10	9	7	4	0	36
July	9	9	4	4	8	0	34
August	5	5	6	2	4	0	22
September	5	5	4	3	2	0	19
October	2	5	5	2	3	0	17
November	3	3	4	7	8	0	25
December	6	4	1	4	5	0	20
Total	48	63	48	45	55	10	269
%	18%	23%	18%	17%	20%	4%	100%

ACCIDENTS BY DAY AND TIME

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Midnight - 00:59	0	0	0	0	0	1	1	2
01:00 - 01:59	0	0	0	0	0	1	0	1
02:00 - 02:59	1	0	0	0	0	0	1	2
03:00 - 03:59	0	0	1	0	0	0	0	1
04:00 - 04:59	0	0	0	0	0	0	0	0
05:00 - 05:59	1	1	0	0	0	0	0	2
06:00 - 06:59	1	0	3	1	2	1	2	10
07:00 - 07:59	0	2	0	4	2	4	0	12
08:00 - 08:59	0	3	4	2	4	3	1	17
09:00 - 09:59	0	3	5	2	2	1	0	13
10:00 - 10:59	1	5	3	1	1	1	2	14
11:00 - 11:59	1	2	2	2	2	3	6	18
12:00 - 12:59	4	3	0	0	3	3	0	13
13:00 - 13:59	3	1	1	4	3	2	2	16
14:00 - 14:59	2	1	4	2	0	5	0	14
15:00 - 15:59	3	3	2	2	3	1	2	16
16:00 - 16:59	1	5	10	3	4	4	3	30
17:00 - 17:59	4	4	4	8	5	0	1	26
18:00 - 18:59	4	2	5	4	3	6	3	27
19:00 - 19:59	1	4	3	3	1	0	0	12
20:00 - 20:59	2	1	0	1	1	2	0	7
21:00 - 21:59	1	1	2	1	0	0	2	7
22:00 - 22:59	0	0	0	3	0	1	0	4
23:00 - 23:59	1	0	1	0	1	0	2	5
Total	31	41	50	43	37	39	28	269
%	12%	15%	19%	16%	14%	14%	10%	100%

PIA Search Ref 21092 - A283 - A27 - 5yrs to 31 Mar 2020

Accident Date BETWEEN '01-Apr-2015' AND '31-Mar-2020' AND Accident Severity IN LIST 1,2,3

JUNCTION DETAIL	Number	%
SLIP ROAD	19	7
MULTIPLE JUNCTION	1	0
OTHER JUNCTION	1	0
CROSS ROADS	11	4
NOT AT JUNCTION	97	36
PRIVATE DRIVE	11	4
ROUNDABOUT AND MINI	68	25
T OR STAGGERED	61	23
TOTAL	**269**	

JUNCTION CONTROLS	Number	%
STOP SIGN	2	1
AUTOMATIC TRAFFIC SIG	18	7
GIVE WAY SIGN	152	57
NOT AT JUNCTION	97	36
TOTAL	**269**	

SPEED LIMIT	Number	%
20 MPH	3	1
30 MPH	53	20
40 MPH	27	10
50 MPH	15	6
60 MPH	103	38
70 MPH	68	25
TOTAL	**269**	

ROAD CLASS	Number	%
A	260	97
Unclassified	9	3
TOTAL	**269**	

NUMBER OF ACCIDENTS INVOLVING PEDESTRIANS	Number	%
	15	6

NUMBER OF ACCIDENTS INVOLVING SKIDDING	Number	%
	56	21

WEATHER	Number	%
FINE	230	86
RAIN	24	9
FINE WIND	2	1
RAIN WIND	5	2
OTHER	4	1
UNKNOWN	4	1
TOTAL	**269**	

ROAD SURFACE	Number	%
DRY	206	77
WET	61	23
ICE	2	1
TOTAL	**269**	

LIGHT CONDITIONS	Number	%
Light	207	77
Dark	62	23
TOTAL	**269**	

CASUALTY SEVERITY UPTO 2020

	2015	2016	2017	2018	2019	2020	Total
Fatal	0	0	1	0	0	0	1
Serious	10	11	6	13	13	5	58
Slight	54	73	58	58	67	11	321
Total	64	84	65	71	80	16	380
%	17%	22%	17%	19%	21%	4%	100%

CASUALTIES BY MONTH AND YEAR UPTO 2020

	2015	2016	2017	2018	2019	2020	Total
January	0	7	6	7	2	10	32
February	0	3	7	6	5	5	26
March	0	8	4	6	7	1	26
April	8	6	2	7	7	0	30
May	7	5	3	8	10	0	33
June	7	14	13	9	5	0	48
July	15	12	7	4	12	0	50
August	7	7	6	2	8	0	30
September	5	8	4	6	2	0	25
October	2	5	8	2	4	0	21
November	4	4	4	9	13	0	34
December	9	5	1	5	5	0	25
Total	64	84	65	71	80	16	380
%	17%	22%	17%	19%	21%	4%	100%

CASUALTIES BY DAY AND TIME

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Midnight - 00:59	0	0	0	0	0	2	1	3
01:00 - 01:59	0	0	0	0	0	1	0	1
02:00 - 02:59	1	0	0	0	0	0	1	2
03:00 - 03:59	0	0	1	0	0	0	0	1
04:00 - 04:59	0	0	0	0	0	0	0	0
05:00 - 05:59	1	3	0	0	0	0	0	4
06:00 - 06:59	1	0	4	1	5	1	2	14
07:00 - 07:59	0	2	0	4	5	4	0	15
08:00 - 08:59	0	3	4	2	5	4	1	19
09:00 - 09:59	0	3	5	2	2	1	0	13
10:00 - 10:59	1	9	4	2	1	1	6	24
11:00 - 11:59	2	4	2	2	3	5	6	24
12:00 - 12:59	7	5	0	0	5	4	0	21
13:00 - 13:59	5	2	1	4	6	2	3	23
14:00 - 14:59	4	1	5	2	0	7	0	19
15:00 - 15:59	3	5	4	3	3	1	2	21
16:00 - 16:59	2	6	15	5	4	7	8	47
17:00 - 17:59	4	7	7	10	6	0	2	36
18:00 - 18:59	6	3	5	7	3	8	6	38
19:00 - 19:59	1	5	5	4	1	0	0	16
20:00 - 20:59	3	2	0	1	1	2	0	9
21:00 - 21:59	1	1	2	1	0	0	5	10
22:00 - 22:59	0	0	0	5	0	4	0	9
23:00 - 23:59	3	0	2	0	1	0	5	11
Total	45	61	66	55	51	54	48	380
%	12%	16%	17%	14%	13%	14%	13%	100%

PIA Search Ref 21092 - A283 - A27 - 5yrs to 31 Mar 2020

Accident Date BETWEEN '01-Apr-2015' AND '31-Mar-2020' AND Accident Severity IN LIST 1,2,3

CASUALTIES BY TYPE AND AGE GROUPING

	Unknown Age	0 to 4	5 to 15	16 to 19	20 to 29	30 to 59	60 Plus	Total	%
Pedestrian	0	0	3	0	4	5	3	**15**	4
Pedal Cyclist	0	0	0	0	5	18	3	**26**	7
PTW Rider	0	0	0	6	20	29	4	**59**	16
Pillion Passenger	0	0	0	0	1	2	0	**3**	1
Car Driver	0	0	0	9	53	85	37	**184**	48
Car Passenger	0	4	9	15	13	13	15	**69**	18
Goods Driver	0	0	0	0	3	11	1	**15**	4
Goods Passenger	1	0	1	0	2	0	0	**4**	1
PSV Passenger	0	0	0	0	0	0	1	**1**	0
Hack/PRI Driver	0	0	0	0	0	1	0	**1**	0
Hack/PRI Passenger	0	0	0	2	0	1	0	**3**	1
TOTAL	**1**	**4**	**13**	**32**	**101**	**165**	**64**	**380**	
%	0	1	3	8	27	43	17		

Number of Casualties with unknown age: 1

VEHICLES INVOLVED BY TYPE AND AGE OF DRIVER

	1 to 15	16 to 19	20 to 29	30 to 59	60 Plus	Unknown	Total	%
Pedal Cycle	0	0	5	18	3	0	**26**	5
PTW	0	6	20	31	5	0	**62**	11
Car	0	16	88	192	74	19	**389**	70
Minibus	0	0	1	0	0	0	**1**	0
PSV	0	0	0	4	0	0	**4**	1
Goods < 3.5T	0	0	8	33	6	1	**48**	9
Goods > 3.5T	0	0	0	12	4	4	**20**	4
Hackney/Private	0	0	0	4	1	0	**5**	1
Other/Unknown	0	0	0	0	0	1	**1**	0
TOTAL	**0**	**22**	**122**	**294**	**93**	**25**	**556**	
%	0	4	22	53	17	4		

VEHICLE MANOEUVRES

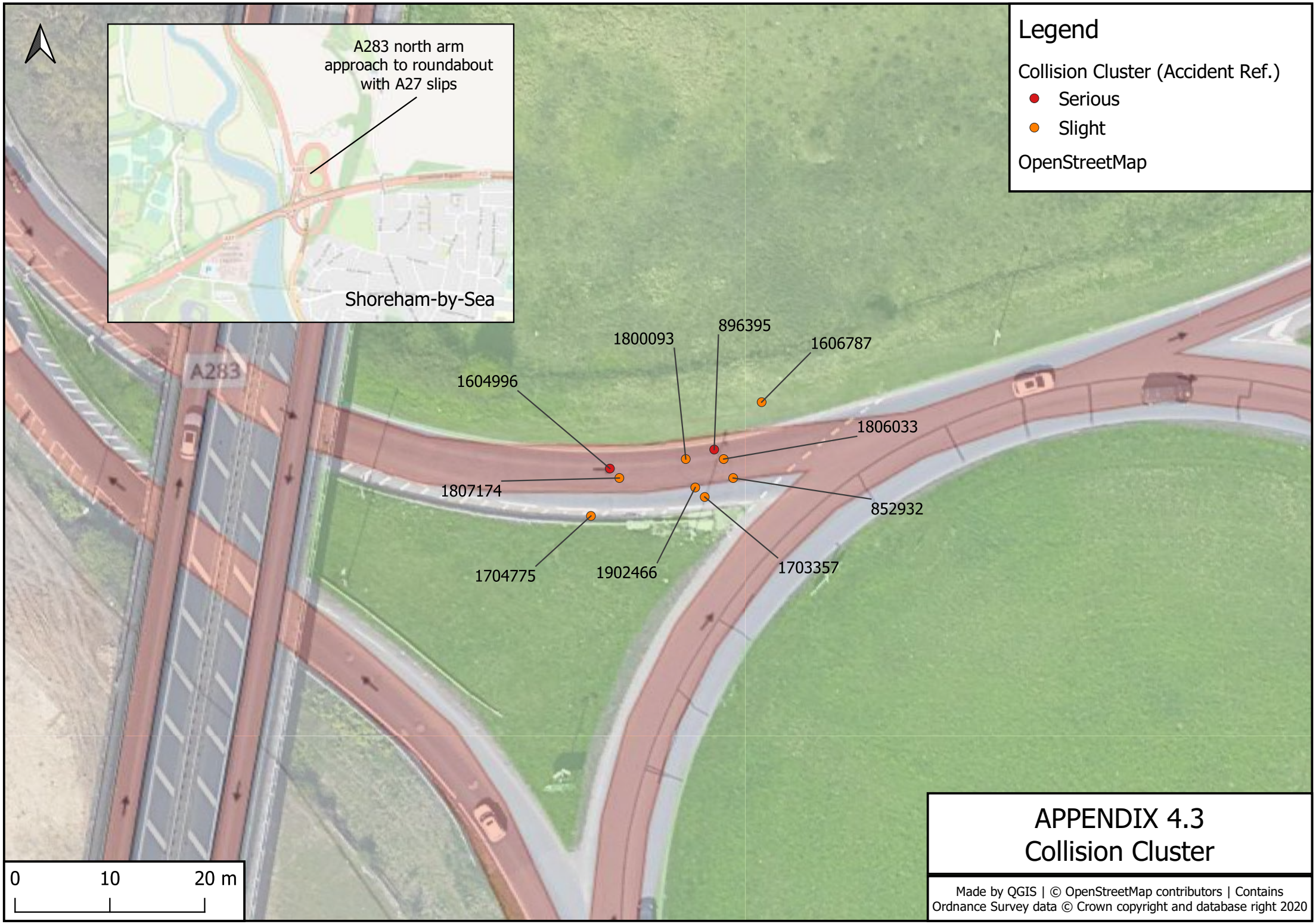
	Number	%
CHANGING LANE TO LEFT	3	1
CHANGING LANE TO RIGHT	6	1
GOING AHEAD LEFT HAND BEND	31	6
GOING AHEAD OTHER	246	44
GOING AHEAD RIGHT HAND BEND	12	2
STARTING	23	4
OVERTAKING MOVING VEHICLE ON ITS OFFSIDE	6	1
OVERTAKING ON NEARSIDE	3	1
OVERTAKING MOVING VEHICLE ON ITS NEARSIDE	6	1
PARKED	11	2
STOPPING	88	16
TURNING LEFT	20	4
TURNING RIGHT	40	7
U TURN	8	1
WAITING TO GO AHEAD BUT HELD UP	40	7
WAITING TO TURN LEFT	7	1
WAITING TO TURN RIGHT	6	1
TOTAL	**556**	

PIA Search Ref 21092 - A283 - A27 - 5yrs to 31 Mar 2020

Accident Date BETWEEN '01-Apr-2015' AND '31-Mar-2020' AND Accident Severity IN LIST 1,2,3

BREATH TEST

	Number	%
NOT APPLICABLE	19	3
POSITIVE	4	1
NEGATIVE	330	59
NOT REQUESTED	60	11
DRIVER NOT CONTACTED	130	23
MEDICAL REASONS	13	2
TOTAL	**556**	


A283 north arm approach to roundabout with A27 slips
Shoreham-by-Sea
A283
1800093
896395
1606787
1604996
1806033
1807174
852932
1704775
1902466
1703357
Legend
Collision Cluster (Accident Ref.)
Serious
Slight
OpenStreetMap
0
10
20 m
APPENDIX 4.3
Collision Cluster
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1.3 Accident Reference:1604996 Serious A283 STEYNING ROAD SHOREHAM AT JUNCTION OF A27 CLOVER LEAF Accident 94 of 269

1.7 Date & 1.9 Time.....Thursday 18/08/2016 16:01
1.11 Grid co-ordinates.....520841/106634
1.10 Local Authority.....Adur
1.12/1.13 1st road identity..A283
1.18/1.19 2nd road identity..A27
1.22 Weather.....Fine
1.21 Light conditions.....Daylight
1.20a Crossing(human).....No Human control within 50m
1.20b Crossing(physical).....No crossing facility within 5
1.15 Speed limit.....60 Mph
1.14 Road type.....Single c'way
1.16 Junction detail.....Roundabout
1.17 Junction control.....Give way sign or uncontrolled
1.24 Special conditions...None
1.25 Carriageway hazards..None
1.5 Number of vehicles...2
1.6 Number of casualties.1
1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
Failed to judge other person's path/speed (Driver/Rider - Error)	Vehicle 001	Very likely	Yes

Accident Description
V2 CAR APPROACHES ROUNDABOUT AND SLOWS IS HIT FROM BEHIND BY V1 CAR DAMAGE TO BOTH VEHICLES PLUS CAUSED INJURY LACERATION TO RIGHT CALF OF DRIVER V2

2 Vehicles

2.4 Veh ref no.....1
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....West East
2.7 Manoeuvres.....Going ahead other
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Front
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....50
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Journey as part of work

2.4 Veh ref no.....2
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....West East
2.7 Manoeuvres.....Stopping
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Back
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Female
2.22 Driver age.....69
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Unknown

1 Casualty

3.5 Cas ref no.....1
3.6 Casualty class.....Driver or Rider
3.7 Gender.....Female
3.8 Age.....69
3.9 Severity.....Serious
3.4 Vehicle no.....2
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....No
3.16 PSV passenger.....No
3.14 Seat belt usage.....Worn but not independently confirmed
3.17 School pupil.....Other (3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

APPENDIX 4.4
COLLISION CLUSTER
FULL REPORTS

1.3 Accident Reference:1606787 Slight A27 SHOREHAM-BY-SEA AT JUNCTION OF A283 OUTSIDE CLOVERLEAF ROUNDABOUT Accident 106 of 269

1.7 Date & 1.9 Time.....Friday 11/11/2016 14:20	1.15 Speed limit.....60 Mph
1.11 Grid co-ordinates.....520857/106641	1.14 Road type.....Slip road
1.10 Local Authority.....Adur	1.16 Junction detail.....Roundabout
1.12/1.13 1st road identity..A27	1.17 Junction control.....Give way sign or uncontrolled
1.18/1.19 2nd road identity..A283	1.24 Special conditions...None
1.22 Weather.....Fine	1.25 Carriageway hazards..None
1.21 Light conditions.....Daylight	1.5 Number of vehicles...2
1.20a Crossing(human).....No Human control within 50m	1.6 Number of casualties.2
1.20b Crossing(physical).....No crossing facility within 5	1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
Failed to look properly (Driver/Rider - Error)	Vehicle 001	Possible	Yes
Failed to judge other person's path/speed (Driver/Rider - Error)	Vehicle 001	Possible	

Accident Description

V1 DROVE INTO THE BACK OF V2 WHICH WAS WAITING AT THE JUNCTION OF THE ROUNDABOUT

2 Vehicles

2.4 Veh ref no.....1	
2.17 Other vehicle.....0	2.16 First impact.....Front
2.5 Vehicle class.....Car	2.12 Hit object in c'way..None
2.10 Junction location...Approaching or parked on approach	2.14 Hit object off c'way.None
2.9 Restricted location.On main carriageway	2.18 Parts damaged..... / /
2.8 Movement from/to....North West	2.21 Driver gender.....Male
2.7 Manoeuvres.....Stopping	2.22 Driver age.....41
2.11 Skidding.....No	
2.13 Left c'way.....Did not leave c'way	2.24 Hit and Run.....No
2.6 Towing.....No	2.23 Breath test.....Negative
2.28 Foreign vehicle.....Not foreign	2.29 Journey purpose.....Other

2.4 Veh ref no.....2	
2.17 Other vehicle.....0	2.16 First impact.....Back
2.5 Vehicle class.....Car	2.12 Hit object in c'way..None
2.10 Junction location...Entering roundabout	2.14 Hit object off c'way.None
2.9 Restricted location.On main carriageway	2.18 Parts damaged..... / /
2.8 Movement from/to....North West	2.21 Driver gender.....Female
2.7 Manoeuvres.....Waiting to go ahead but held up	2.22 Driver age.....56
2.11 Skidding.....No	
2.13 Left c'way.....Did not leave c'way	2.24 Hit and Run.....No
2.6 Towing.....No	2.23 Breath test.....Not requested
2.28 Foreign vehicle.....Not foreign	2.29 Journey purpose.....Other

2 Casualties

3.5 Cas ref no.....1	3.15 Car passenger.....No
3.6 Casualty class.....Driver or Rider	3.16 PSV passenger.....No
3.7 Gender.....Female	3.14 Seat belt usage.....Worn but not independently confirmed
3.8 Age.....56	3.13 School pupil.....Other (3.19 School .....)
3.9 Severity.....Slight	3.10 Pedestrian location..Not a pedestrian
3.4 Vehicle no.....2	3.11 Pedestrian movement..Not a pedestrian
3.12 Ped Direction.....Not a pedestrian	3.19 Roadworker injured...No

3.5 Cas ref no.....2	3.15 Car passenger.....Front
3.6 Casualty class.....Passenger	3.16 PSV passenger.....No
3.7 Gender.....Male	3.14 Seat belt usage.....Unknown
3.8 Age.....59	3.13 School pupil.....Other (3.19 School .....)
3.9 Severity.....Slight	3.10 Pedestrian location..Not a pedestrian
3.4 Vehicle no.....2	3.11 Pedestrian movement..Not a pedestrian
3.12 Ped Direction.....Not a pedestrian	3.19 Roadworker injured...No

1.3 Accident Reference:1703357 Slight A283 STEYNING ROAD SHOREHAM AT JUNCTION OF A27 SHOREHAM BY PASS Accident 131 of 269

1.7 Date & 1.9 Time.....Sunday 18/06/2017 18:30	1.15 Speed limit.....60 Mph
1.11 Grid co-ordinates.....520851/106631	1.14 Road type.....Roundabout
1.10 Local Authority.....Adur	1.16 Junction detail.....Roundabout
1.12/1.13 1st road identity..A283	1.17 Junction control.....Give way sign or uncontrolled
1.18/1.19 2nd road identity..A27	1.24 Special conditions...None
1.22 Weather.....Fine	1.25 Carriageway hazards..None
1.21 Light conditions.....Daylight	1.5 Number of vehicles...2
1.20a Crossing(human).....No Human control within 50m	1.6 Number of casualties.2
1.20b Crossing(physical).....No crossing facility within 5	1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
			No - reported over the counter

Accident Description

VEH 2 STATIONERY AT ROUNDABOUT WAITING FOR GAP TO MANOEUVRE OFF, VEH 1 APPROACHING THE SAME ROUNDABOUT BUT FAILED TO STOP AND HITTING VEH 2 FROM THE REAR. CAUSING DAMAGE TO VEH 2 AND INJURY TO DRIVER AND PASSENGER.

2 Vehicles

2.4 Veh ref no.....1	
2.17 Other vehicle.....0	2.16 First impact.....Front
2.5 Vehicle class.....Car	2.12 Hit object in c'way..None
2.10 Junction location...Approaching or parked on approach	2.14 Hit object off c'way.None
2.9 Restricted location.On main carriageway	2.18 Parts damaged..... / /
2.8 Movement from/to....North South	2.21 Driver gender.....Female
2.7 Manoeuvres.....Going ahead other	2.22 Driver age.....20
2.11 Skidding.....No	
2.13 Left c'way.....Did not leave c'way	2.24 Hit and Run.....No
2.6 Towing.....No	2.23 Breath test.....Not contacted
2.28 Foreign vehicle.....Not foreign	2.29 Journey purpose.....Unknown

2.4 Veh ref no.....2	
2.17 Other vehicle.....0	2.16 First impact.....Back
2.5 Vehicle class.....Car	2.12 Hit object in c'way..None
2.10 Junction location...Approaching or parked on approach	2.14 Hit object off c'way.None
2.9 Restricted location.On main carriageway	2.18 Parts damaged..... / /
2.8 Movement from/to....North South	2.21 Driver gender.....Female
2.7 Manoeuvres.....Waiting to go ahead but held up	2.22 Driver age.....44
2.11 Skidding.....No	
2.13 Left c'way.....Did not leave c'way	2.24 Hit and Run.....No
2.6 Towing.....No	2.23 Breath test.....Not requested
2.28 Foreign vehicle.....Not foreign	2.29 Journey purpose.....Unknown

2 Casualties

3.5 Cas ref no.....1	3.15 Car passenger.....No
3.6 Casualty class.....Driver or Rider	3.16 PSV passenger.....No
3.7 Gender.....Female	3.14 Seat belt usage.....Unknown
3.8 Age.....44	3.13 School pupil.....Other
	(3.19 School .....)
3.9 Severity.....Slight	3.10 Pedestrian location..Not a pedestrian
3.4 Vehicle no.....2	3.11 Pedestrian movement..Not a pedestrian
3.12 Ped Direction.....Not a pedestrian	3.19 Roadworker injured...No

3.5 Cas ref no.....2	3.15 Car passenger.....Front
3.6 Casualty class.....Passenger	3.16 PSV passenger.....No
3.7 Gender.....Female	3.14 Seat belt usage.....Unknown
3.8 Age.....15	3.13 School pupil.....Other
	(3.19 School .....)
3.9 Severity.....Slight	3.10 Pedestrian location..Not a pedestrian
3.4 Vehicle no.....2	3.11 Pedestrian movement..Not a pedestrian
3.12 Ped Direction.....Not a pedestrian	3.19 Roadworker injured...No

1.3 Accident Reference:1704775 Slight A283 SHOREHAM-BY-SEA AT JUNCTION OF A283 Accident 143 of 269

1.7 Date & 1.9 Time.....Wednesday 23/08/2017 18:00
1.11 Grid co-ordinates.....520839/106629
1.10 Local Authority.....Adur
1.12/1.13 1st road identity..A283
1.18/1.19 2nd road identity..A283
1.22 Weather.....Fine
1.21 Light conditions.....Daylight
1.20a Crossing(human).....No Human control within 50m
1.20b Crossing(physical).....No crossing facility within 5
1.15 Speed limit.....60 Mph
1.14 Road type.....Roundabout
1.16 Junction detail.....Roundabout
1.17 Junction control.....Give way sign or uncontrolled
1.24 Special conditions...None
1.25 Carriageway hazards..None
1.5 Number of vehicles...3
1.6 Number of casualties.1
1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
Failed to judge other person's path/speed (Driver/Rider - Error)	Vehicle 001	Very likely	Yes

Accident Description

V3 A MARKED POLICE VEHICLE WAS RESPONDING WITH BLUE LIGHTS TO ASSIST A COLLEAGUE WITH STOPPING A VEHICLE OF INTEREST. V2 STOPPED AT ROUNDABOUT TO GIVE WAY TO V3. V1 FAILED TO NOTICE THAT V2 HAD STOPPED AND COLLIDED WITH THE REAR OF V2 TWICE.

3 Vehicles

2.4 Veh ref no.....1
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....West East
2.7 Manoeuvres.....Going ahead other
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Front
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....56
2.24 Hit and Run.....No
2.23 Breath test.....Not requested
2.29 Journey purpose.....Unknown

2.4 Veh ref no.....2
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Approaching or parked on approach
2.9 Restricted location.On main carriageway
2.8 Movement from/to....West East
2.7 Manoeuvres.....Stopping
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Back
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....23
2.24 Hit and Run.....No
2.23 Breath test.....Not requested
2.29 Journey purpose.....Unknown

2.4 Veh ref no.....3
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....South North
2.7 Manoeuvres.....Going ahead other
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Did not impact
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....34
2.24 Hit and Run.....No
2.23 Breath test.....Not requested
2.29 Journey purpose.....Journey as part of work

1 Casualty

3.5 Cas ref no.....1
3.6 Casualty class.....Passenger
3.7 Gender.....Female
3.8 Age.....58
3.9 Severity.....Slight
3.4 Vehicle no.....1
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....Rear
3.16 PSV passenger.....No
3.14 Seat belt usage.....Worn but not independently confirmed
3.17 School pupil.....Other
(3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

1.3 Accident Reference:1800093 Slight A283 STEYNING ROAD SHOREHAM AT JUNCTION OF A27 Accident 161 of 269

1.7 Date & 1.9 Time.....Saturday 06/01/2018 10:17
1.11 Grid co-ordinates.....520849/106635
1.10 Local Authority.....Adur
1.12/1.13 1st road identity..A283
1.18/1.19 2nd road identity..A27
1.22 Weather.....Fine
1.21 Light conditions.....Daylight
1.20a Crossing(human).....No Human control within 50m
1.20b Crossing(physical).....No crossing facility within 5
1.15 Speed limit.....60 Mph
1.14 Road type.....Single c'way
1.16 Junction detail.....Roundabout
1.17 Junction control.....Give way sign or uncontrolled
1.24 Special conditions...None
1.25 Carriageway hazards..None
1.5 Number of vehicles...2
1.6 Number of casualties.5
1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
Failed to look properly (Driver/Rider - Error)	Vehicle 001	Very likely	Yes

Accident Description

VEHICLE 2 WAS STATIONARY, GIVING WAY, ON STEYNING ROAD SOUTHBOUND ENTRANCE TO ROUNDABOUT, VEHICLE 1 TRAVELLING SOUTH ON STEYNING ROAD FAILED TO RECOGNISE AND REACT TO THE PRESENCE OF VEHICLE 2 AND COLLIDED WITH THE REAR. THERE WAS MINIMAL BRAKING PRIOR TO IMPACT AND SIGNIFICANT DAMAGE WAS CAUSED TO BOTH VEHICLES TO AN EXTENT IT WOULD BE EXPECTED THAT ALL OCCUPANTS OF ALL VEHICLES WOULD SUSTAIN WHIPLASH TYPE INJURIES. ABSOLUTE LIABILITY LAYS WITH THE DRIVER OF V1

2 Vehicles

2.4 Veh ref no.....1
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Approaching or parked on approach
2.9 Restricted location.On main carriageway
2.8 Movement from/to....North west East
2.7 Manoeuvres.....Going ahead other
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Front
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....29
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Other

2.4 Veh ref no.....2
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....North west East
2.7 Manoeuvres.....Starting
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Back
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....45
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Other

1.3 Accident Reference:1806033 Slight A283 STEYNING ROAD SHOREHAM AT JUNCTION OF A283 Accident 194 of 269

1.7 Date & 1.9 Time.....Thursday 01/11/2018 13:31
1.11 Grid co-ordinates.....520853/106635
1.10 Local Authority.....Adur
1.12/1.13 1st road identity..A283
1.18/1.19 2nd road identity..A283
1.22 Weather.....Fine
1.21 Light conditions.....Daylight
1.20a Crossing(human).....No Human control within 50m
1.20b Crossing(physical).....No crossing facility within 5
1.15 Speed limit.....50 Mph
1.14 Road type.....Single c'way
1.16 Junction detail.....Roundabout
1.17 Junction control.....Give way sign or uncontrolled
1.24 Special conditions...None
1.25 Carriageway hazards..None
1.5 Number of vehicles...2
1.6 Number of casualties.1
1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
Failed to look properly (Driver/Rider - Error)	Vehicle 001	Very likely	Yes

Accident Description

V1 AND V2 BOTH TRAVELLED SOUTH ON A283 AND APPROACHED ROUNDABOUT WHICH BOTH VEHICLES SLOWED ON THE APPROACH TO. V2 STOPPED AT GIVE WAY TO YIELD FOR VEHICLES APPROACHING FROM THE RIGHT, V1 DID THE SAME HOWEVER THE DRIVER OF V1 DID NOT STOP, MAINTAINED FORWARD MOTION FAILING TO SEE THAT V2 HAD COME TO A HALT. V1 COLLIDED WITH THE REAR OF V2 CAUSING DAMAGE TO BOTH VEHICLES AND INJURY TO FRONT SEAT PASSENGER OF V1. DRIVER OF V1 ACCEPTED RESPONSIBILITY AT SCENE.

2 Vehicles

2.4 Veh ref no.....1
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....North East
2.7 Manoeuvres.....Going ahead left hand bend
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Front
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....66
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Other

2.4 Veh ref no.....2
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....North East
2.7 Manoeuvres.....Stopping
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Back
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Female
2.22 Driver age.....47
2.24 Hit and Run.....No
2.23 Breath test.....Not requested
2.29 Journey purpose.....Other

1 Casualty

3.5 Cas ref no.....1
3.6 Casualty class.....Passenger
3.7 Gender.....Female
3.8 Age.....56
3.9 Severity.....Slight
3.4 Vehicle no.....1
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....Rear
3.16 PSV passenger.....No
3.14 Seat belt usage.....Worn and independently confirmed
3.13 School pupil.....Other
(3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

1.3 Accident Reference:1807174 Slight A283 STEYNING ROAD SHOREHAM BY SEA AT JUNCTION OF A27 SHOREHAM BY PASS

1.7 Date & 1.9 Time.....Monday 24/12/2018 09:19
1.11 Grid co-ordinates.....520842/106633
1.10 Local Authority.....Adur
1.12/1.13 1st road identity..A283
1.18/1.19 2nd road identity..A27
1.22 Weather.....Unknown
1.21 Light conditions.....Daylight
1.20a Crossing(human).....No Human control within 50m
1.20b Crossing(physical).....No crossing facility within 5
1.15 Speed limit.....30 Mph
1.14 Road type.....Single c'way
1.16 Junction detail.....Roundabout
1.17 Junction control.....Give way sign or uncontrolled
1.24 Special conditions...None
1.25 Carriageway hazards..None
1.5 Number of vehicles...2
1.6 Number of casualties.1
1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
			No - reported over the counter

Accident Description

VEH2 WAS WAITING AT THE JUNCTION UNDER SHOREHAM BYPASS. STATIONARY AT ROUNDABOUT. WAS WAITING TO TURN LEFT, FEMALE DRIVER WAS IN FRONT WHO WAS CAUTIOUS AND HER VIEW WAS OBSTRUCTED BY ANOTHER VEH, A WHITE VAN. THE WHITE VAN ALLOWED HER TO GO INFRONT AND WITHOUT LOOKING, HAS HIT VEH2 FROM THE REAR.

2 Vehicles

2.4 Veh ref no.....1
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....West North east
2.7 Manoeuvres.....Starting
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Front
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Female
2.22 Driver age.....27
2.24 Hit and Run.....No
2.23 Breath test.....Not requested
2.29 Journey purpose.....Unknown

2.4 Veh ref no.....2
2.17 Other vehicle.....0
2.5 Vehicle class.....M/cycle > 500cc
2.10 Junction location...Approaching or parked on approach
2.9 Restricted location.On main carriageway
2.8 Movement from/to....West North east
2.7 Manoeuvres.....Waiting to go ahead but held up
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Back
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....48
2.24 Hit and Run.....No
2.23 Breath test.....Not requested
2.29 Journey purpose.....Unknown

1 Casualty

3.5 Cas ref no.....1
3.6 Casualty class.....Driver or Rider
3.7 Gender.....Male
3.8 Age.....48
3.9 Severity.....Slight
3.4 Vehicle no.....2
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....No
3.16 PSV passenger.....No
3.14 Seat belt usage.....Not applicable
3.13 School pupil.....Other
(3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

1.3 Accident Reference:1902466 Slight A283 SHOREHAM AT JUNCTION OF A27 BRIGHTON ON SLIP Accident 221 of 269

1.7 Date & 1.9 Time.....Monday 13/05/2019 15:45
1.11 Grid co-ordinates.....520850/106632
1.10 Local Authority.....Adur
1.12/1.13 1st road identity..A283
1.18/1.19 2nd road identity..A27
1.22 Weather.....Fine
1.21 Light conditions.....Daylight
1.20a Crossing(human).....No Human control within 50m
1.20b Crossing(physical).....No crossing facility within 5
1.15 Speed limit.....60 Mph
1.14 Road type.....Single c'way
1.16 Junction detail.....Roundabout
1.17 Junction control.....Give way sign or uncontrolled
1.24 Special conditions...None
1.25 Carriageway hazards..None
1.5 Number of vehicles...2
1.6 Number of casualties.1
1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
Careless/Reckless (Driver/Rider - Behaviour)	Vehicle 001	Very likely	
Junction overshoot (Driver/Rider - Error)	Vehicle 001	Very likely	
Nervous/Uncertain (Driver/Rider - Behaviour)	Vehicle 002	Very likely	Yes

Accident Description

VEHICLE 1 ON APPROACH TO ROUNDABOUT FAILED TO NOTICE VEHICLE 2 HAD NOT DEPARTED FROM GIVE WAY AND COLLIDED WITH THE REAR OF VEHICLE 2 CAUSING MINOR INJURY.

2 Vehicles

2.4 Veh ref no.....1
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Approaching or parked on approach
2.9 Restricted location.On main carriageway
2.8 Movement from/to....West East
2.7 Manoeuvres.....Stopping
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Front
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....23
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Other

2.4 Veh ref no.....2
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Approaching or parked on approach
2.9 Restricted location.On main carriageway
2.8 Movement from/to....West East
2.7 Manoeuvres.....Waiting to go ahead but held up
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Back
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Female
2.22 Driver age.....52
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Other

1 Casualty

3.5 Cas ref no.....1
3.6 Casualty class.....Driver or Rider
3.7 Gender.....Female
3.8 Age.....52
3.9 Severity.....Slight
3.4 Vehicle no.....2
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....No
3.16 PSV passenger.....No
3.14 Seat belt usage.....Worn but not independently confirmed
3.17 School pupil.....Other
(3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

1.3 Accident Reference:0852932 Slight STEYNING ROAD (A283) NEAR JUNCTION WITH SHOREHAM BY-PASS (A27) Accident 230 of 269

1.7 Date & 1.9 Time.....Monday 01/07/2019 10:30
1.11 Grid co-ordinates.....520854/106633
1.10 Local Authority.....Adur
1.12/1.13 1st road identity..A283
1.18/1.19 2nd road identity..A27
1.22 Weather.....Fine
1.21 Light conditions.....Daylight
1.20a Crossing(human).....No Human control within 50m
1.20b Crossing(physical).....No crossing facility within 5
1.15 Speed limit.....60 Mph
1.14 Road type.....Dual c'way
1.16 Junction detail.....Roundabout
1.17 Junction control.....Give way sign or uncontrolled
1.24 Special conditions...None
1.25 Carriageway hazards..None
1.5 Number of vehicles...2
1.6 Number of casualties.3
1.23 Surface.....Dry

Contributory Factors	Participant	Confidence	Did a police officer attend?
Sudden braking (Driver/Rider - Error)	Vehicle 001	Very likely	Yes
Failed to judge other person's path/speed (Driver/Rider - Error)	Vehicle 001	Possible	
Following too close (Driver/Rider - Injudicious)	Vehicle 002	Very likely	
Failed to look properly (Driver/Rider - Error)	Vehicle 002	Possible	

Accident Description

VEH1 AND VEH2 WERE TRAVELLING SOUTHBOUND ON THE A283, STEYNING ROAD. VEH1 STOPPED AT THE ROUNDABOUT BELOW THE A27 SHOREHAM-BY-SEA, WITH VEH2 BEHIND, ALSO STATIONARY. VEH1 BEGAN TO DRIVE FORWARD ON TO THE ROUNDABOUT BUT ANOTHER VEHICLE CAME ROUND THEROUNDABOUT FASTER THAN EXPECTED, AND SO VEH1 STOPPED BEFORE JOINING THE ROUNDABOUT. VEH2 SAW THS OTHER VEHICLE AND BRAKED TOO, BUT DROVE INTO THE REAR OF VEH1 AT ROUGHLY 10MPH. THIS CAUSED DAMAGE THE REAR BUMPER AND TWO REAR DOORS OF VEH1 AND DAMAGEO THE FRONT BUMPER OF VEH2. VEH2 HAS BEEN DEEMED A WRITE OFF BY THE INSURANCE COMPANY.

2 Vehicles

2.4 Veh ref no.....1
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....North South east
2.7 Manoeuvres.....Starting
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Back
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....24
2.24 Hit and Run.....No
2.23 Breath test.....Not requested
2.29 Journey purpose.....Unknown

2.4 Veh ref no.....2
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....North South east
2.7 Manoeuvres.....Starting
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Front
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....55
2.24 Hit and Run.....No
2.23 Breath test.....Not requested
2.29 Journey purpose.....Other

3 Casualties

3.5 Cas ref no.....1
3.6 Casualty class.....Passenger
3.7 Gender.....Female
3.8 Age.....57
3.9 Severity.....Slight
3.4 Vehicle no.....2
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....Front
3.16 PSV passenger.....No
3.14 Seat belt usage.....Worn and independently
3.13 School pupil.....Other
(3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

3.5 Cas ref no.....2
3.6 Casualty class.....Driver or Rider
3.7 Gender.....Male
3.8 Age.....24
3.9 Severity.....Slight
3.4 Vehicle no.....1
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....No
3.16 PSV passenger.....No
3.14 Seat belt usage.....Unknown
3.13 School pupil.....Other
(3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

3.5 Cas ref no.....3
3.6 Casualty class.....Passenger
3.7 Gender.....Male
3.8 Age.....41
3.9 Severity.....Slight
3.4 Vehicle no.....1
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....Front
3.16 PSV passenger.....No
3.14 Seat belt usage.....Unknown
3.13 School pupil.....Other
(3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

1.3 Accident Reference:0896395 Serious STEYNING ROAD (A283) NEAR JUNCTION WITH SHOREHAM BY-PASS (A27) Accident 248 of 269

1.7 Date & 1.9 Time.....Thursday 07/11/2019 16:49
1.11 Grid co-ordinates.....520852/106636
1.10 Local Authority.....Adur
1.12/1.13 1st road identity..A283
1.18/1.19 2nd road identity..A27
1.22 Weather.....Fine
1.21 Light conditions.....Daylight
1.20a Crossing(human).....No Human control within 50m
1.20b Crossing(physical).....No crossing facility within 5
1.15 Speed limit.....60 Mph
1.14 Road type.....Dual c'way
1.16 Junction detail.....Roundabout
1.17 Junction control.....Give way sign or uncontrolled
1.24 Special conditions...None
1.25 Carriageway hazards..None
1.5 Number of vehicles...2
1.6 Number of casualties.1
1.23 Surface.....Wet

Contributory Factors	Participant	Confidence	Did a police officer attend?
Aggressive driving (Driver/Rider - Behaviour)	Vehicle 001	Possible	Yes
Exceeding speed limit (Driver/Rider - Injudicious)	Vehicle 001	Possible	

Accident Description

VEHICLE 1 WAS DRIVING SOUTH BOUND ON A283 TOWARDS SHOREHAM FLYOVER, THE DRIVER HAD BEEN DRIVING AT A RELATIVE SPEED AND SLOWED FOR THE BEND AND ROUNDABOUT WHILE IN THE INSIDE LANE. THE DRIVER HAD SLOWED DOWN BUT WAS LOOKING TO THE RIGHT TO ANTICIPATE AN ENTRY O TO THE ROUND ABOUT BUT HADN'T SEEN VEHICLE 2 STOPPED AT THE GIVE WAY LINES AND SWERVED SHARPLY TO AVOID COLLISION HOWEVER HE CONNECTED WITH THE REAR OFF SIDE OF VEHICLE 2 AND DAMAGED THIS AND THE FRONT NEARSIDE OF VEHICLE 1.

2 Vehicles

2.4 Veh ref no.....1
2.17 Other vehicle.....0
2.5 Vehicle class.....Van/Goods < 3.5t
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....North west East
2.7 Manoeuvres.....O/T stat.vehicle on its O/S
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Front
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Male
2.22 Driver age.....54
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Journey as part of work

2.4 Veh ref no.....2
2.17 Other vehicle.....0
2.5 Vehicle class.....Car
2.10 Junction location...Entering roundabout
2.9 Restricted location.On main carriageway
2.8 Movement from/to....North west East
2.7 Manoeuvres.....Starting
2.11 Skidding.....No
2.13 Left c'way.....Did not leave c'way
2.6 Towing.....No
2.28 Foreign vehicle.....Not foreign
2.16 First impact.....Back
2.12 Hit object in c'way..None
2.14 Hit object off c'way.None
2.18 Parts damaged..... / /
2.21 Driver gender.....Female
2.22 Driver age.....33
2.24 Hit and Run.....No
2.23 Breath test.....Negative
2.29 Journey purpose.....Taking pupil to/from school

1 Casualty

3.5 Cas ref no.....1
3.6 Casualty class.....Driver or Rider
3.7 Gender.....Female
3.8 Age.....33
3.9 Severity.....Serious
3.4 Vehicle no.....2
3.12 Ped Direction.....Not a pedestrian
3.15 Car passenger.....No
3.16 PSV passenger.....No
3.14 Seat belt usage.....Worn and independently confirmed
3.17 School pupil.....Other (3.19 School .....)
3.10 Pedestrian location..Not a pedestrian
3.11 Pedestrian movement..Not a pedestrian
3.19 Roadworker injured...No

APPENDIX 5.0

PERMITTED TRIP GENERATION

5.1 TRICS: Vehicle Repair Garages
5.2 TRICS: Commercial Warehousing
5.3 TRICS: Industrial Unit
5.4 Traffic Flows: Permitted Development (AM Peak Hour)
5.5 Traffic Flows: Permitted Development (PM Peak Hour)

Calculation Reference: AUDIT-733701-210725-0756

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 15 - VEHICLE SERVICES
Category : A - VEHICLE REPAIR GARAGE (SLOW FIT)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HF	HERTFORDSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	2 days
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 290 to 5100 (units: sqm)
Range Selected by User: 136 to 5100 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 28/06/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	2 days
Wednesday	2 days
Thursday	2 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	8

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	1
Residential Zone	2
No Sub Category	1

APPENDIX 5.1
TRICS: VEHICLE REPAIR GARAGES

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	3 days
10,001 to 15,000	2 days
15,001 to 20,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Not Known	1 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	8 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CA-15-A-01 GARAGE CAMBRIDGESHIRE
FENGATE
PETERBOROUGH

Edge of Town
Industrial Zone
Total Gross floor area: 900 sqm
Survey date: TUESDAY *16/10/12* *Survey Type: MANUAL*

2 HF-15-A-01 GARAGE HERTFORDSHIRE
LEYDEN ROAD
STEVENAGE

Edge of Town
Industrial Zone
Total Gross floor area: 290 sqm
Survey date: FRIDAY *28/06/19* *Survey Type: MANUAL*

3 LE-15-A-01 GARAGE LEICESTERSHIRE
FLECKNEY ROAD
NEAR LEICESTER
KIBWORTH BEAUCHAMP
Edge of Town
Residential Zone
Total Gross floor area: 333 sqm
Survey date: TUESDAY *10/05/05* *Survey Type: MANUAL*

4 LE-15-A-02 BMW & MINI GARAGE LEICESTERSHIRE
MERIDIAN EAST
LEICESTER
BRAUNSTONE
Edge of Town
Commercial Zone
Total Gross floor area: 5100 sqm
Survey date: THURSDAY *25/06/09* *Survey Type: MANUAL*

5 LN-15-A-01 VEHICLE REPAIR LINCOLNSHIRE
SADLER ROAD
LINCOLN
BIRCHWOOD
Edge of Town
Industrial Zone
Total Gross floor area: 735 sqm
Survey date: WEDNESDAY *16/06/04* *Survey Type: MANUAL*

6 TW-15-A-01 COMMERCIAL VEHICLE GARAGE TYNE & WEAR
HENDON STREET
SUNDERLAND
HENDON
Edge of Town
Industrial Zone
Total Gross floor area: 400 sqm
Survey date: FRIDAY *24/05/19* *Survey Type: MANUAL*

7 WO-15-A-01 AUTOCENTRE WORCESTERSHIRE
BIRMINGHAM ROAD
NEAR BROMSGROVE
MARLBROOK
Edge of Town
Residential Zone
Total Gross floor area: 500 sqm
Survey date: THURSDAY *06/06/02* *Survey Type: MANUAL*

8 WY-15-A-01 FORD GARAGE WEST YORKSHIRE
WHITEHALL ROAD
LEEDS

Edge of Town
No Sub Category
Total Gross floor area: 1746 sqm
Survey date: WEDNESDAY *14/09/05* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 15 - VEHICLE SERVICES/A - VEHICLE REPAIR GARAGE (SLOW FIT)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.250	1	400	0.000	1	400	0.250
07:00 - 08:00	4	1673	0.478	4	1673	0.149	4	1673	0.627
08:00 - 09:00	8	1251	1.220	8	1251	0.670	8	1251	1.890
09:00 - 10:00	8	1251	1.180	8	1251	0.940	8	1251	2.120
10:00 - 11:00	8	1251	0.940	8	1251	0.740	8	1251	1.680
11:00 - 12:00	8	1251	0.920	8	1251	0.640	8	1251	1.560
12:00 - 13:00	8	1251	0.680	8	1251	0.900	8	1251	1.580
13:00 - 14:00	8	1251	0.750	8	1251	0.830	8	1251	1.580
14:00 - 15:00	8	1251	0.760	8	1251	0.960	8	1251	1.720
15:00 - 16:00	8	1251	0.740	8	1251	1.050	8	1251	1.790
16:00 - 17:00	8	1251	0.690	8	1251	0.990	8	1251	1.680
17:00 - 18:00	8	1251	0.530	8	1251	0.850	8	1251	1.380
18:00 - 19:00	8	1251	0.220	8	1251	0.470	8	1251	0.690
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			9.358			9.189			18.547

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	290 - 5100 (units: sqm)
Survey date date range:	01/01/00 - 28/06/19
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 15 - VEHICLE SERVICES/A - VEHICLE REPAIR GARAGE (SLOW FIT)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.000	1	400	0.000	1	400	0.000
07:00 - 08:00	4	1673	0.000	4	1673	0.000	4	1673	0.000
08:00 - 09:00	8	1251	0.070	8	1251	0.040	8	1251	0.110
09:00 - 10:00	8	1251	0.030	8	1251	0.060	8	1251	0.090
10:00 - 11:00	8	1251	0.010	8	1251	0.020	8	1251	0.030
11:00 - 12:00	8	1251	0.020	8	1251	0.030	8	1251	0.050
12:00 - 13:00	8	1251	0.010	8	1251	0.020	8	1251	0.030
13:00 - 14:00	8	1251	0.030	8	1251	0.030	8	1251	0.060
14:00 - 15:00	8	1251	0.040	8	1251	0.030	8	1251	0.070
15:00 - 16:00	8	1251	0.040	8	1251	0.090	8	1251	0.130
16:00 - 17:00	8	1251	0.010	8	1251	0.020	8	1251	0.030
17:00 - 18:00	8	1251	0.030	8	1251	0.020	8	1251	0.050
18:00 - 19:00	8	1251	0.000	8	1251	0.010	8	1251	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.290			0.370			0.660

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210725-0752

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BD	BEDFORDSHIRE	1 days
	EX	ESSEX	1 days
	KC	KENT	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days
10	WALES		
	BG	BRIDGEND	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 190 to 37530 (units: sqm)
Range Selected by User: 190 to 80066 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 25/11/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Wednesday	1 days
Thursday	2 days
Friday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	10

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	9
Commercial Zone	1

APPENDIX 5.2
TRICS: COMMERCIAL WAREHOUSING

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village,

Secondary Filtering selection:

Use Class:

n/a	2 days
B8	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	3 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	2 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	6 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	10 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	10 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 BD-02-F-02 DRINKS WHOLESALER BEDFORDSHIRE
CAMBRIDGE ROAD
BEDFORD

Edge of Town
Industrial Zone
Total Gross floor area: 3500 sqm
Survey date: THURSDAY *15/10/20* *Survey Type: MANUAL*

2 BG-02-F-01 LOGISTICS COMPANY BRIDGEND
PARC CRESCENT
BRIDGEND
WATERTON IND. EST.
Edge of Town
Industrial Zone
Total Gross floor area: 3050 sqm
Survey date: MONDAY *13/10/14* *Survey Type: MANUAL*

3 DV-02-F-01 OPTICS WAREHOUSE DEVON
ALDERS WAY
PAIGNTON

Edge of Town
Industrial Zone
Total Gross floor area: 190 sqm
Survey date: FRIDAY *29/03/19* *Survey Type: MANUAL*

4 EX-02-F-01 SPORTS SUPPLEMENTS ESSEX
BRUNEL WAY
COLCHESTER
SEVERALLS INDUSTRIAL PK
Edge of Town
Industrial Zone
Total Gross floor area: 6560 sqm
Survey date: FRIDAY *18/05/18* *Survey Type: MANUAL*

5 KC-02-F-02 COMMERCIAL WAREHOUSING KENT
MILLS ROAD
AYLESFORD
QUARRY WOOD
Edge of Town
Industrial Zone
Total Gross floor area: 11200 sqm
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

6 SF-02-F-03 ROAD HAULAGE SUFFOLK
CENTRAL AVENUE
IPSWICH
WARREN HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 4700 sqm
Survey date: FRIDAY *18/09/15* *Survey Type: MANUAL*

7 TW-02-F-01 ASDA DISTRIBUTION CENTRE TYNE & WEAR
MANDARIN WAY
WASHINGTON
PATTISON IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 31000 sqm
Survey date: FRIDAY *13/11/15* *Survey Type: MANUAL*

8 WM-02-F-02 LOGISTICS FIRM WEST MIDLANDS
SOVEREIGN ROAD
BIRMINGHAM
KINGS NORTON
Edge of Town
Commercial Zone
Total Gross floor area: 3625 sqm
Survey date: MONDAY *09/11/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	WO-02-F-03 COTSWOLD WAY WORCESTER	THERMOTECHNOLOGY	WORCESTERSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	37530 sqm	
	Survey date: WEDNESDAY	*14/10/20*	*Survey Type: MANUAL*
10	WY-02-F-02 STAITHGATE LANE BRADFORD NEWHALL Edge of Town Industrial Zone Total Gross floor area:	DISTRIBUTION COMPANY 10446 sqm	WEST YORKSHIRE
	Survey date: THURSDAY	*14/03/19*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	3	4712	0.318	3	4712	0.134	3	4712	0.452
06:00 - 07:00	4	12917	0.252	4	12917	0.062	4	12917	0.314
07:00 - 08:00	10	11180	0.215	10	11180	0.085	10	11180	0.300
08:00 - 09:00	10	11180	0.217	10	11180	0.097	10	11180	0.314
09:00 - 10:00	10	11180	0.165	10	11180	0.072	10	11180	0.237
10:00 - 11:00	10	11180	0.106	10	11180	0.092	10	11180	0.198
11:00 - 12:00	10	11180	0.110	10	11180	0.110	10	11180	0.220
12:00 - 13:00	10	11180	0.109	10	11180	0.108	10	11180	0.217
13:00 - 14:00	10	11180	0.131	10	11180	0.111	10	11180	0.242
14:00 - 15:00	10	11180	0.112	10	11180	0.128	10	11180	0.240
15:00 - 16:00	10	11180	0.106	10	11180	0.128	10	11180	0.234
16:00 - 17:00	10	11180	0.089	10	11180	0.185	10	11180	0.274
17:00 - 18:00	10	11180	0.078	10	11180	0.224	10	11180	0.302
18:00 - 19:00	10	11180	0.039	10	11180	0.155	10	11180	0.194
19:00 - 20:00	4	12917	0.033	4	12917	0.221	4	12917	0.254
20:00 - 21:00	4	12917	0.021	4	12917	0.141	4	12917	0.162
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.101			2.053			4.154

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	190 - 37530 (units: sqm)
Survey date date range:	01/01/13 - 25/11/20
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	3	4712	0.064	3	4712	0.092	3	4712	0.156
06:00 - 07:00	4	12917	0.025	4	12917	0.037	4	12917	0.062
07:00 - 08:00	10	11180	0.030	10	11180	0.050	10	11180	0.080
08:00 - 09:00	10	11180	0.039	10	11180	0.054	10	11180	0.093
09:00 - 10:00	10	11180	0.040	10	11180	0.033	10	11180	0.073
10:00 - 11:00	10	11180	0.044	10	11180	0.045	10	11180	0.089
11:00 - 12:00	10	11180	0.042	10	11180	0.047	10	11180	0.089
12:00 - 13:00	10	11180	0.047	10	11180	0.033	10	11180	0.080
13:00 - 14:00	10	11180	0.040	10	11180	0.039	10	11180	0.079
14:00 - 15:00	10	11180	0.034	10	11180	0.027	10	11180	0.061
15:00 - 16:00	10	11180	0.049	10	11180	0.038	10	11180	0.087
16:00 - 17:00	10	11180	0.047	10	11180	0.040	10	11180	0.087
17:00 - 18:00	10	11180	0.045	10	11180	0.031	10	11180	0.076
18:00 - 19:00	10	11180	0.023	10	11180	0.018	10	11180	0.041
19:00 - 20:00	4	12917	0.004	4	12917	0.012	4	12917	0.016
20:00 - 21:00	4	12917	0.006	4	12917	0.010	4	12917	0.016
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.579			0.606			1.185

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210725-0736

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
08	NORTH WEST		
	LC	LANCASHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days
11	SCOTLAND		
	SR	STIRLING	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1010 to 3000 (units: sqm)
Range Selected by User: 500 to 4000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 22/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	3 days
Thursday	2 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	7

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	6
Commercial Zone	1

APPENDIX 5.3
TRICS: INDUSTRIAL UNIT

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known	7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	7 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	7 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BR-02-C-02 STAINLESS FITTINGS BRISTOL CITY
SOUTH LIBERTY LANE
BRISTOL

Edge of Town
Industrial Zone
Total Gross floor area: 1475 sqm
Survey date: TUESDAY 22/09/15 Survey Type: MANUAL

2 CB-02-C-01 DOMINO'S PIZZA CUMBRIA
COWPER ROAD
PENRITH
GILWILLY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 2950 sqm
Survey date: TUESDAY 10/06/14 Survey Type: MANUAL

3 HC-02-C-01 ENGINEERING COMPANY HAMPSHIRE
JAYS CLOSE
BASINGSTOKE

Edge of Town
Industrial Zone
Total Gross floor area: 3000 sqm
Survey date: THURSDAY 16/06/16 Survey Type: MANUAL

4 HE-02-C-02 THERMAL PROCESSING HEREFORDSHIRE
COLLEGE ROAD
HEREFORD
BURCOTT
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm
Survey date: TUESDAY 22/10/13 Survey Type: MANUAL

5 LC-02-C-04 POWDER COATINGS LANCASHIRE
CHORLEY ROAD
BLACKPOOL
LITTLE CARLETON
Edge of Town
Industrial Zone
Total Gross floor area: 1010 sqm
Survey date: THURSDAY 20/06/19 Survey Type: MANUAL

6 SF-02-C-01 JOINERY SUFFOLK
ANSON ROAD
IPSWICH
MARTLESHAM HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 1100 sqm
Survey date: FRIDAY 12/07/13 Survey Type: MANUAL

7 SR-02-C-01 SPECIALIST MODEL MAKING STIRLING
BORROWMEADOW ROAD
STIRLING

Edge of Town
Industrial Zone
Total Gross floor area: 2350 sqm
Survey date: MONDAY 16/06/14 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BD-02-C-01	survey undertaken during covid restrictions

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	2950	0.102	1	2950	0.000	1	2950	0.102
06:00 - 07:00	2	2650	0.189	2	2650	0.019	2	2650	0.208
07:00 - 08:00	7	1966	0.487	7	1966	0.080	7	1966	0.567
08:00 - 09:00	7	1966	0.509	7	1966	0.087	7	1966	0.596
09:00 - 10:00	7	1966	0.312	7	1966	0.160	7	1966	0.472
10:00 - 11:00	7	1966	0.262	7	1966	0.225	7	1966	0.487
11:00 - 12:00	7	1966	0.138	7	1966	0.160	7	1966	0.298
12:00 - 13:00	7	1966	0.189	7	1966	0.167	7	1966	0.356
13:00 - 14:00	7	1966	0.276	7	1966	0.312	7	1966	0.588
14:00 - 15:00	7	1966	0.131	7	1966	0.203	7	1966	0.334
15:00 - 16:00	7	1966	0.116	7	1966	0.232	7	1966	0.348
16:00 - 17:00	7	1966	0.065	7	1966	0.298	7	1966	0.363
17:00 - 18:00	7	1966	0.044	7	1966	0.479	7	1966	0.523
18:00 - 19:00	7	1966	0.094	7	1966	0.225	7	1966	0.319
19:00 - 20:00	1	2950	0.203	1	2950	0.203	1	2950	0.406
20:00 - 21:00	1	2950	0.102	1	2950	0.136	1	2950	0.238
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.219			2.986			6.205

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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Parameter summary

Trip rate parameter range selected:	1010 - 3000 (units: sqm)
Survey date date range:	01/01/13 - 22/10/20
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

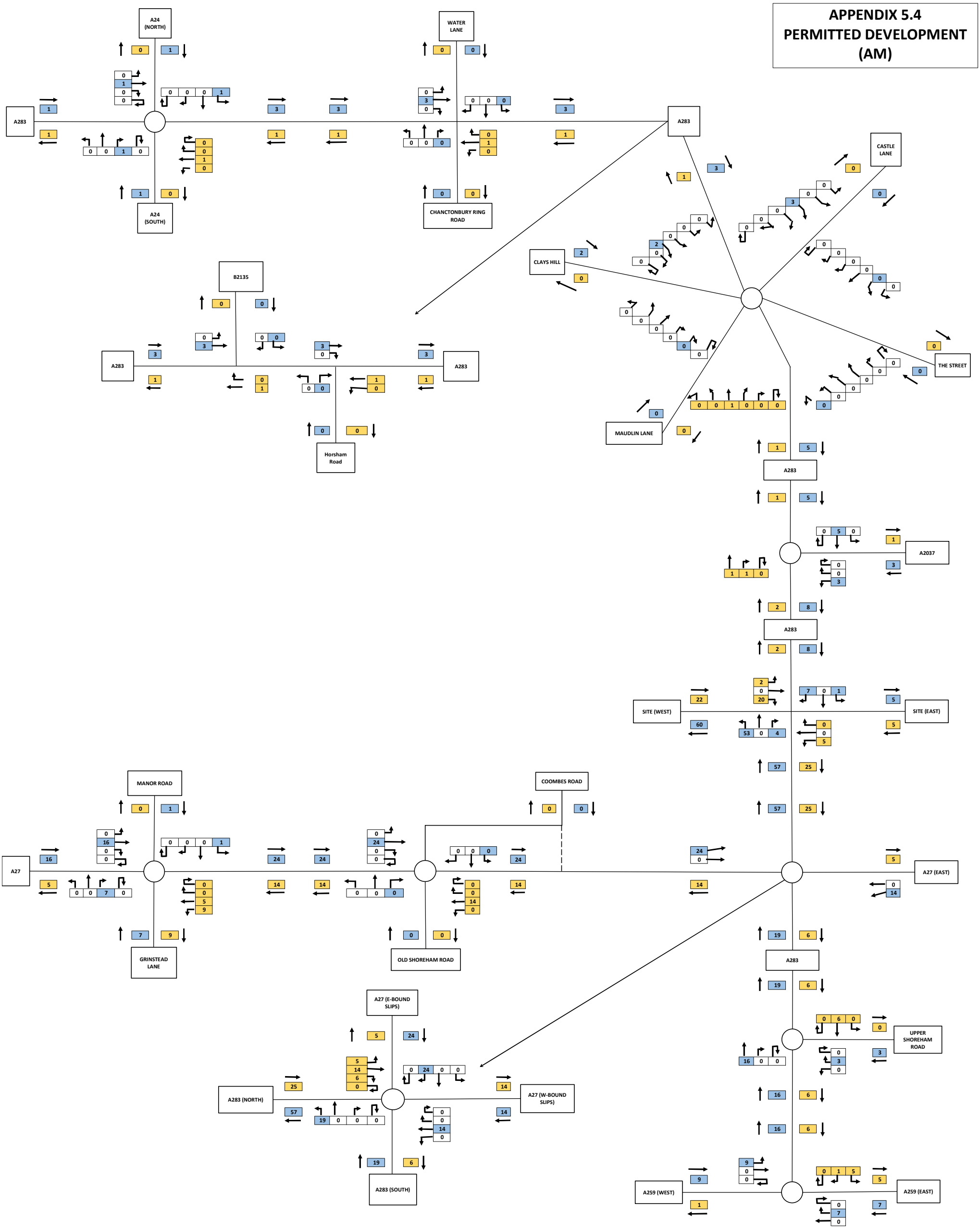
TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 07:00	2	2650	0.038	2	2650	0.000	2	2650	0.038
07:00 - 08:00	7	1966	0.015	7	1966	0.015	7	1966	0.030
08:00 - 09:00	7	1966	0.058	7	1966	0.007	7	1966	0.065
09:00 - 10:00	7	1966	0.029	7	1966	0.036	7	1966	0.065
10:00 - 11:00	7	1966	0.051	7	1966	0.051	7	1966	0.102
11:00 - 12:00	7	1966	0.029	7	1966	0.029	7	1966	0.058
12:00 - 13:00	7	1966	0.015	7	1966	0.022	7	1966	0.037
13:00 - 14:00	7	1966	0.022	7	1966	0.015	7	1966	0.037
14:00 - 15:00	7	1966	0.000	7	1966	0.007	7	1966	0.007
15:00 - 16:00	7	1966	0.015	7	1966	0.015	7	1966	0.030
16:00 - 17:00	7	1966	0.022	7	1966	0.015	7	1966	0.037
17:00 - 18:00	7	1966	0.015	7	1966	0.015	7	1966	0.030
18:00 - 19:00	7	1966	0.007	7	1966	0.007	7	1966	0.014
19:00 - 20:00	1	2950	0.000	1	2950	0.203	1	2950	0.203
20:00 - 21:00	1	2950	0.000	1	2950	0.102	1	2950	0.102
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.316			0.539			0.855

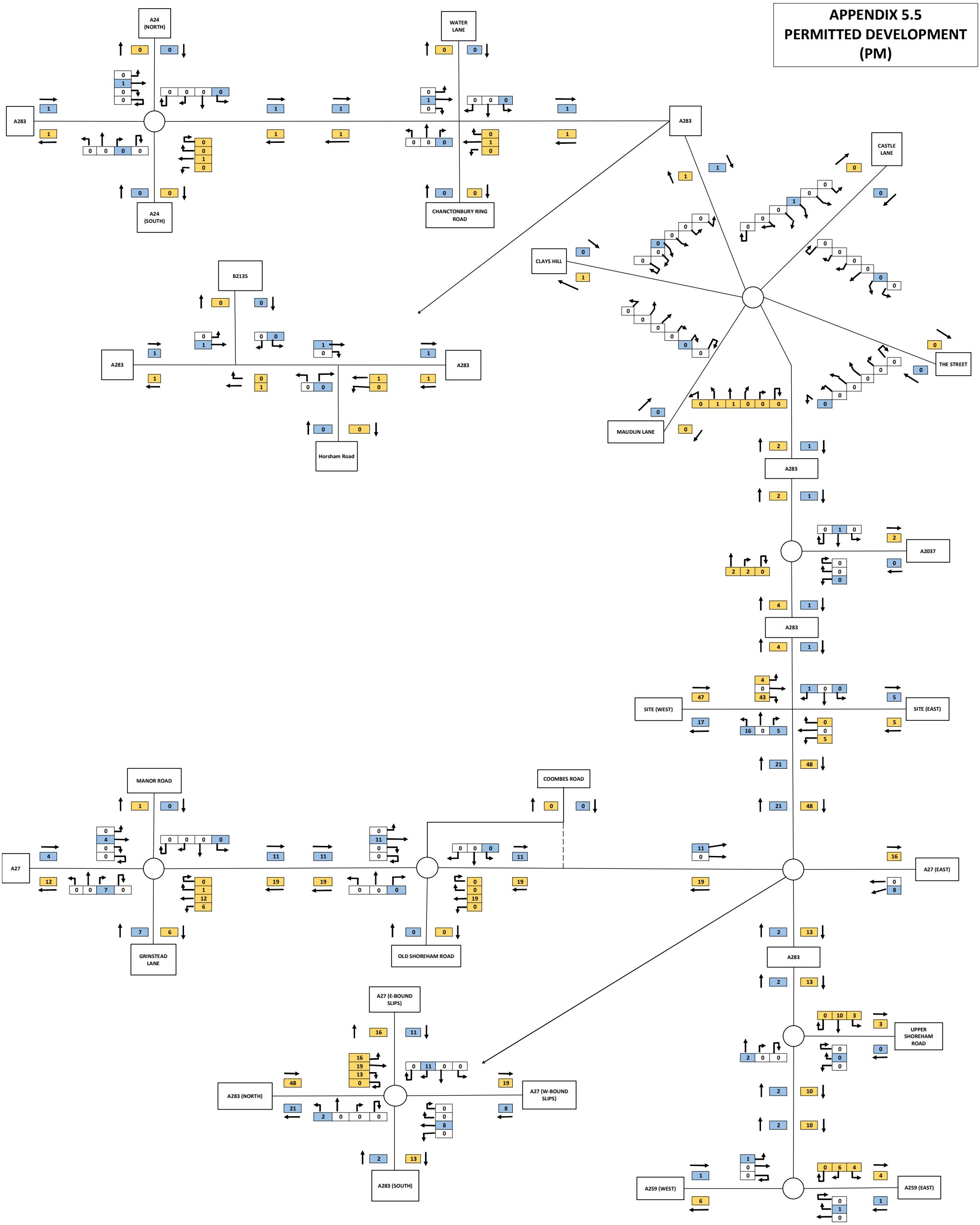
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

APPENDIX 5.4
PERMITTED DEVELOPMENT (AM)



APPENDIX 5.5
PERMITTED DEVELOPMENT (PM)

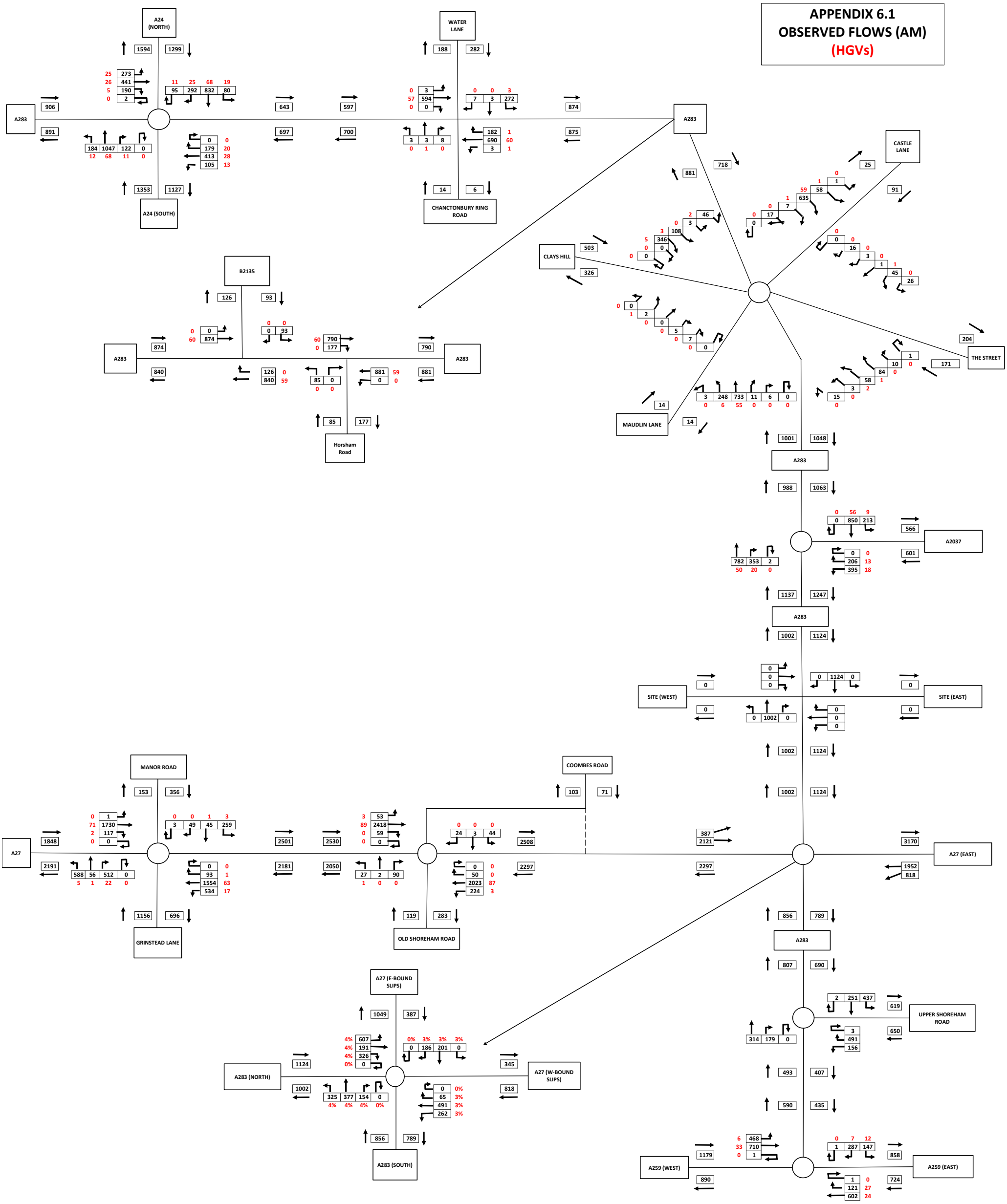


APPENDIX 6.0

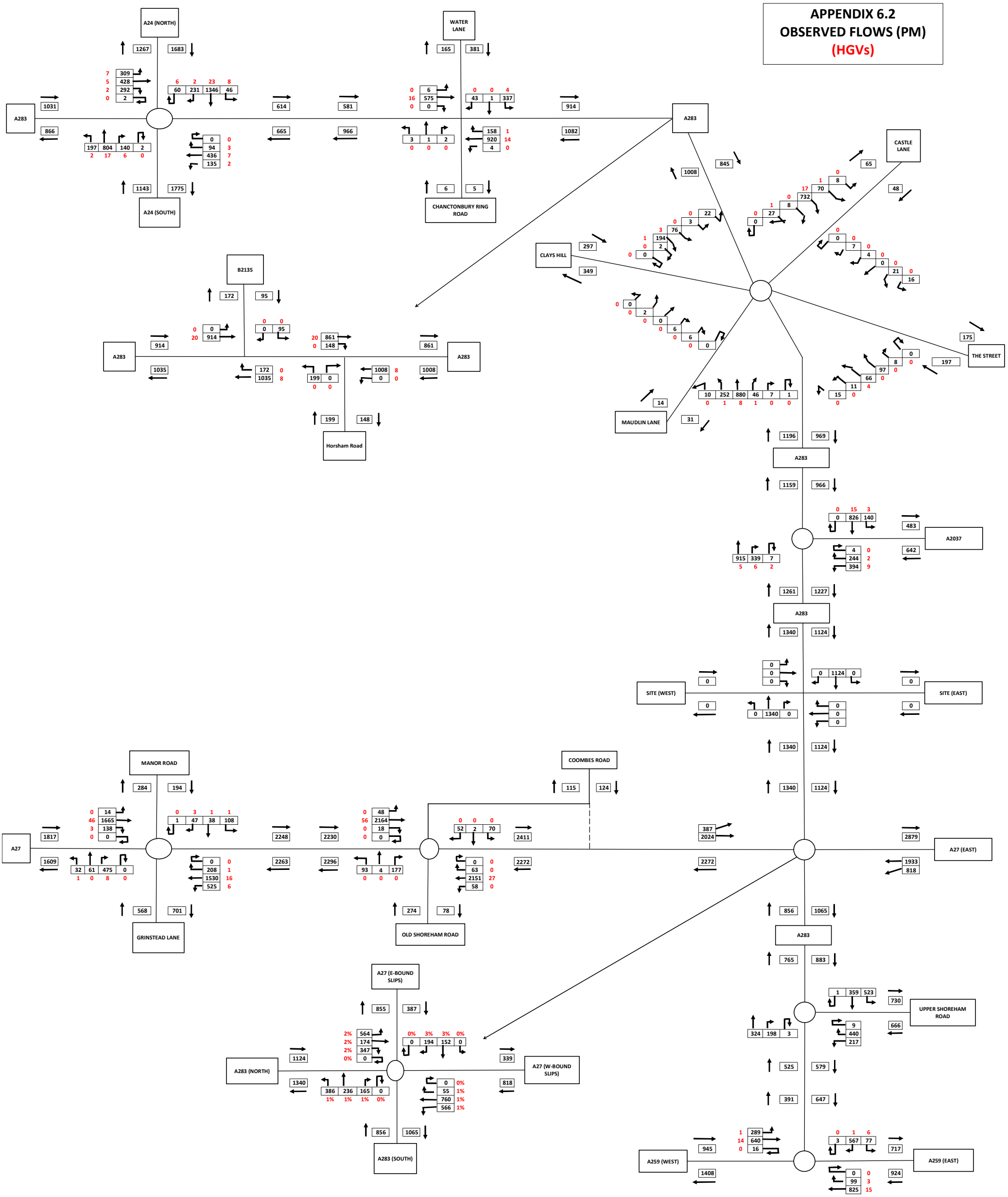
BASELINE TRAFFIC SITUATION

6.1	Traffic Flows: Observed (AM Peak Hour)
6.2	Traffic Flows: Observed (PM Peak Hour)
6.3	List of Committed Development and Local Plan Allocations
6.4	Traffic Flows: 2033 (Without Major Committed Development) (AM Peak Hour)
6.5	Traffic Flows: 2033 (Without Major Committed Development) (PM Peak Hour)
6.6	Traffic Flows: New Monks Farm (Residential) (AM Peak Hour)
6.7	Traffic Flows: New Monks Farm (Residential) (PM Peak Hour)
6.8	Traffic Flows: New Monks Farm Employment (AM Peak Hour)
6.9	Traffic Flows: New Monks Farm IKEA (PM Peak Hour)
6.10	Traffic Flows: Shoreham Airport (AM Peak Hour)
6.11	Traffic Flows: Shoreham Airport (PM Peak Hour)
6.12	Traffic Flows: Total Committed Development (AM Peak Hour)
6.13	Traffic Flows: Total Committed Development (PM Peak Hour)
6.14	Traffic Flows: 2033 Baseline (AM Peak Hour)
6.15	Traffic Flows: 2033 Baseline (PM Peak Hour)

APPENDIX 6.1
OBSERVED FLOWS (AM)
(HGVs)



APPENDIX 6.2
OBSERVED FLOWS (PM)
(HGVs)



REFVAL	reformat	PROPOSAL	DATEDECISS	DCSTAT	DTYPNUMBCO	DCSSLACODE	Number of houses	number of Jobs	Notes
AWDM/0764/17	Kingsway Hotel 117 - 119 Marine Parade Worthing West Sussex BN11 3QQ	Redevelopment and partial conversion of The (former) Kingsway Hotel and No.120 Marine Parade including the retention of the main facades facing Marine Parade, the erection of a two, three and four storey development at the rear and roof extension to provide 1 no. one-bedroom apartment, 8 no. two-bedroom apartments, 4 no. three-bedroom apartments and 1 no. four-bedroom apartment and the demolition of the annexe at No. 1 Queens Road and erection of a two/three storey building to provide 1 no. two-bedroom dwellinghouse and 1 no. three-bedroom dwellinghouse. Nine parking spaces and cycle parking to the rear.	26-Feb-18	APP	Q01	Worthing BC	16		
AWDM/0969/17	The Luxor Centre Station Parade South Street Lancing West Sussex BN15 8AA	Conversion and enlargement (including second- floor roof extension and enlargement of rear tower) to provide 12 no. self-contained flats on rear ground, first, second and third floors including associated elevation alterations, balconies and roof terrace together with rear parking, bin and cycle storage, replacement shopfront and new entrance lobby to flats.	05-Apr-18	APP	Q01	Adur DC	12		
AWDM/0144/18	Church House Church Road Worthing West Sussex	Retention and conversion of existing coach house and stables to provide 1 no. affordable residential unit and refuse and cycle store. Demolition of existing two-storey residential building and re-development to provide 13 no. affordable residential units with associated parking, landscaping and retention and improvement of existing access.	20-Apr-18	APP	Q01	Worthing BC	14		
AWDM/0098/18	Land South Of Units 1 To 7 Lady Bee Industrial Park Albion Street Southwick West Sussex	Erection of 14 commercial units in three blocks for use classes B1 (business) and B8 (storage or distribution) with associated car parking, cycle storage and landscaping.	24-Apr-18	APP	Q02	Adur DC		33	Total commercial floorspace = 1,275 sqm. 1 staff per 39sqm.
AWDM/0220/18	Land North Of Tesco Store Fulbeck Way Worthing West Sussex	Relocation of New Life Church from Salvington Road to corner of Fulbeck Avenue and Fulbeck Way to provide new place of worship comprising 250 seat auditorium, chapel and ancillary accommodation, 42 car parking spaces, motorcycle and cycle parking.	01-Jun-18	APP	Q06	Worthing BC			Only 1 vehicular trip during AM and PM peak hour
AWDM/1497/17	Free Wharf Brighton Road Shoreham-By-Sea West Sussex	Redevelopment of the site to provide ten buildings, containing 540 new homes (of which two will be studios, 179 x one bed, 323 x two bed and 38 x three bed), 2,707sqm of commercial floorspace at ground floor level within use classes, A1 (retail), A3 (cafes and restaurants), B1 (business) and D1 (non-residential institutions). The development also includes 512 parking spaces, of which 438 will be for residents and 74 will be for the commercial space/visitors, reconstruction of the river wall, construction of mooring pontoons and observation platform at the end of Humphrey's Gap, provision of a riverside pedestrian/cycle route, areas of semi-private and publicly accessible open space, internal access roads, 596 cycle parking spaces and associated ancillary areas.	09-Aug-18	APP	Q01	Adur DC	540	177	A1 = 533 sqm; A3 = 746 sqm; B1 = 1,340 sqm; D1 = 88 sqm
AWDM/0178/18	Unit B Lyons Farm Retail Park Lyons Way Worthing West Sussex BN14 9LA	Change of use of the retail unit (A1) to use as a gym/health and fitness centre (D2) and installation of a mezzanine level.	09-Aug-18	APP	Q06	Worthing BC		14	gym = 1347 sqm. WSCC stated that gym will not have a material increase in traffic over the existing uses
AWDM/0063/17	7 The Steyne Worthing West Sussex BN11 3DS	Conversion of No.7 The Steyne to provide 3 no. two bedroom apartments and 1 no. two bedroom maisonette (and allied alterations) and erection of infill building to provide 3 no. three bedroom apartments and 3 no. two bedroom apartments with 8 parking spaces at ground floor level	04-Sep-18	APP	Q01	Worthing BC	10		
AWDM/1688/18	Caxton House Ham Road Shoreham-By-Sea West Sussex BN43 6QD	Demolition of existing building (mixed use Office B1 and general industrial B2) and construction of new building providing 14 residential units comprising 1 no. 1 bedroom flat; 12 no. two bedroom and 1 no. three bedroom flats with undercroft parking. Parking for 5 vehicles and 16 cycles.	10-Dec-18	APP	Q01	Adur DC	14		
AWDM/1529/18	19 - 23 South Street Worthing West Sussex BN11 3AN	The creation of 45 new residential apartments through the extension and change of use of the existing buildings including 3 additional storeys to Liverpool Buildings, elevation balconies at second and third floor levels and roof terrace at fourth floor. New shopfronts and external alterations to the elevation of Liverpool Buildings. New shopfronts and additional floor to South Street elevation with new windows at third and fourth floor. The creation of up to seven new retail units from existing retail floorspace with flexible A1/A2 use and the change of use of an existing A1 unit to flexible A1/A2/A3 use, car parking and associated works.	17-Jan-19	APP	Q01	Worthing BC	45	352	A1/A2 = 6000 sqm. 1 staff per 17sqm
AWDM/1742/18	Cecil Norris House Ravens Road Shoreham-By-Sea West Sussex	Demolition of existing building and construction of new building consisting of 5 x 1-bed flats and 10 x 2-bed flats over 3 levels, with associated parking, cycle and bin storage and landscaping.	13-Feb-19	APP	Q01	Adur DC	15		
AWDM/1763/18	105 - 109 Montague Street Worthing West Sussex BN11 3BP	Demolition of existing building and redevelopment set over 4no. floors, comprising A1 retail floor space at ground floor, 26no. 1, 2 and 3 bedroom units with communal courtyard and balconies at 1st floor to West elevation, cycle store, underground surface-water tanks and associated landscaping	01-May-19	APP	Q01	Worthing BC	26	22	A1 = 379sqm. 1 staff per 17.5sqm
AWDM/1480/18	Columbia House Columbia Drive Worthing West Sussex	Construction of 3 new blocks to provide 46 flats and 226.3 sqm mixed use commercial / non-residential space (Classes A1, A2, B1, D1) including the addition of two floors to existing Columbia House to provide 10 flats and external upgrading of Columbia House. Also associated two new pedestrian access points, parking, landscaping and amenity space.	23-May-19	APP	Q01	Worthing BC	56	15	Mixed commercial = 226.3sqm. 1 staff per 15sqm.

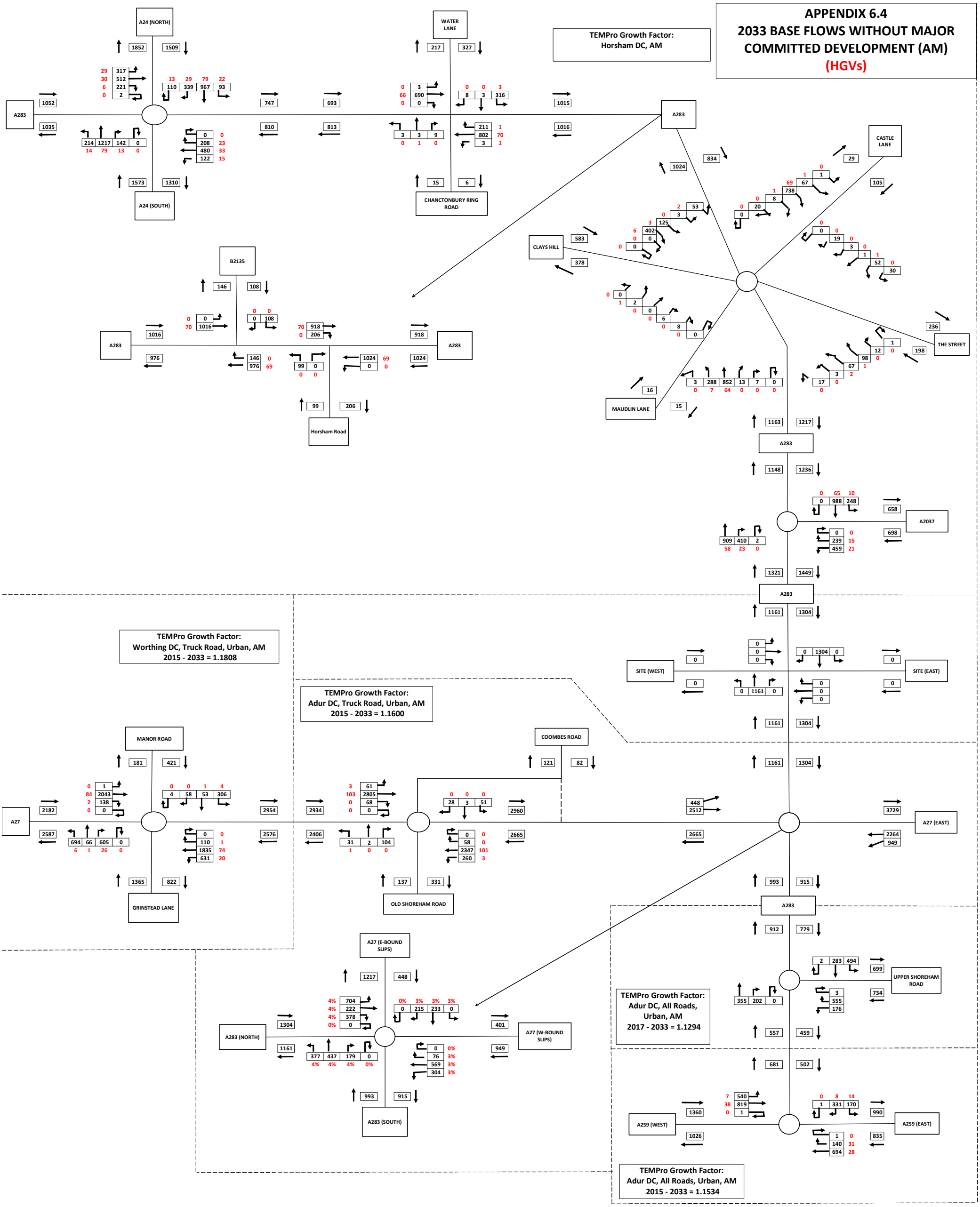
APPENDIX 6.3
LIST OF COMMITTED DEVELOPMENT AND LOCAL PLAN ALLOCATIONS

AWDM/0848/19	151 Rowlands Road Worthing West Sussex BN11 3LE	Conversion of existing care home (Class C2) to provide 19 no. affordable residential units (Class C3) comprising 4 x 2 bedroom flats, 14 x 1 bedroom flats and 1 x bedsit) involving two storey extension replacing conservatory, single-storey infill extension, enlarged dormer and flat roof dormer to South elevation; flat roof dormer, single-storey extension and roof light to West elevation; mechanical smoke extract outlet to roof; alterations to fenestration and internal alterations. 7no. parking spaces.	20-Sep-19	APP	Q01	Worthing BC	19		
AWDM/0393/19	Teville Gate House Railway Approach Worthing West Sussex BN11 1UR	Demolition of existing building and redevelopment with 5-storey office building for Use Class B1a (Business) with associated parking, access and landscaping.	08-Nov-19	APP	Q02	Worthing BC		794	b1a=9207sqm. 1 staff per 11.6 sqm
AWDM/1882/16	Land To The South And East And West Of The Coach And Horses Arundel Road Worthing West Sussex	Outline application for up to 240 dwellings with associated vehicular, pedestrian and cycle routes; parking; service infrastructure and sustainable drainage features; and strategic landscaping including noise bund / attenuation to the A27; all vehicular access to be via the strategic development to the south.	18-Dec-19	APP	Q01	Worthing BC	240		
AWDM/1794/19	Development Site At Part Of First Floor Guildbourne Centre Worthing West Sussex	Change of Use of 1st floor premises from Class A1 (Shops/Retail) to mixed Class B1a (Office) / D1 (Non-Residential Institution) / D2 (Assembly and Leisure) use to accommodate a flexible working space, conference centre, church and general community space, run by the Jubilee Community Church charity.	04-Mar-20	APP	Q06	Worthing BC		125	Mixed B1a/D1/D2 = 1451sqm. 1 staff per 11.6 sqm
AWDM/1743/19	Sussex Clinic 44 - 48 Shelley Road Worthing West Sussex BN11 4BX	Demolition of existing building and construction of 50 bedroom care home (Class C2) with associated facilities, hard and soft landscaping including new access arrangements from Shelley Road.	17-Mar-20	APP	Q06	Worthing BC		10	Assumed 1 staff per 5 bedrooms
AWDM/1008/19	Former Edf Car Park Southdownview Road Worthing West Sussex	Construction of 5 no. buildings providing 22no. light industrial units (Class B1c) with associated car parking and landscaping.	27-Apr-20	APP	Q02	Worthing BC		56	B1c = 2608.5sqm. 1 staff per 47sqm.
AWDM/0954/18	Land At 7 To 27 Albion Street Southwick West Sussex	Demolition of 11-27 Albion Street and redevelopment to provide a total of 55 affordable flats within two blocks of 4-6 storeys in height and the refurbishment of 7-9 Albion Street, with 31 parking spaces.	05-May-20	APP	Q01	Adur DC	55		
AWDM/0607/19	The Aquarena Brighton Road Worthing West Sussex BN11 2EN	Details of Development: Application for minor material amendments to vary to Condition 1 of approved AWDM/1633/16 including revision to floor layouts, elevations, material treatments, window and door openings, plant arrangements, smoke ventilation equipment and removal of solar PV's at roof level.	14-May-20	APP	Q01	Worthing BC	141	63	Commerical unit = 641sqm, Café = 138sqm. Assumed Commercial unit as B1a
AWDM/0769/20	Development Site At 106 To 108 Warren Road Worthing West Sussex	Demolition of No's. 106 and 108 and construction of a three and a half storey 82no. bedroom care home (C2 Use) and associated car parking and facilities including works to public right of way.	11-Sep-20	APP	Q06	Worthing BC		17	Assumed 1 staff per 5 bedrooms
AWDM/0805/20	Site Of Clinic And Land Plus Car Park West Of Assembly Hall Stoke Abbott Road Worthing West Sussex	Demolition of Central Clinic (Use Class D1) and erection of an integrated Care Centre (Use Class D1) up to 4 storeys in height plus rooftop plant and a multi-storey car park (6 levels of parking).	01-Oct-20	APP	Q06	Worthing BC		247	GP practice/Clinic = 6920sqm. 1 staff per 28sqm based on TRICS
AWDM/0300/20	Garage Block North Of St Peters Place Western Road Sompting West Sussex	Full Planning Application for the demolition of existing garages and the erection of 18no. 1-bedroom apartments (including 30% affordable) within a 3-storey building with associated car parking and landscaping and PV panels on flat roof. Retention of existing flat block to the south and provision of additional car parking spaces for existing flats.	29-Oct-20	APP	Q01	Adur DC	18		
AWDM/0762/19	19 Manor Road Worthing West Sussex BN11 3RT	Demolition of existing building and replacement with 10no. one and two bedroom apartments set over four floors, with balconies to West, East and South elevations, accessed from Manor Road with parking for 6no. cars.	30-Nov-20	APP	Q01	Worthing BC	10		
AWDM/0204/20	Kingston Wharf Brighton Road Shoreham-By-Sea West Sussex	Mixed-use redevelopment comprised of three blocks of residential dwellings (4 to 8 storeys) and mixed-use business centre (office, storage and cafe uses) - incorporating riverside walk, landscaping and ancillary car and cycle parking.	29-Jan-21	APP	Q01	Adur DC	255	382	B1 = 2276sqm, B1 (A/b/c) = 1927sqm, B8 - 4188sqm
AWDM/2015/20	Cecil Norris House 2A Ravens Road Shoreham-By-Sea West Sussex	Application to vary conditions 1, 12 and 13 of previously approved AWDM/1742/18: Amendments: A gantry has been added to provide access to the roof; Rainwater downpipes have been added to drawings; the main entrance lobby has been set back in the south elevation; glazing to the entrance lobby and stairwell has been simplified and reduced; glazed side of the hall is no longer present; rooflight over the entrance lobby has also been reduced; dimensions of the bike and bin store have been reduced and are now proposed to be timber clad rather than brick; minor amendments to the fenestration in the west elevation; Transoms have been added to some of the windows in the north elevation; High level windows in the north elevation are now openable to a maximum of 100mm; Windows to the ground floor in the northern elevation will now be clear glazed; The reglit wall previously proposed in the northern elevation has been removed and replaced with smaller, traditional windows; The terrace and balconies at the south-west corner of the building have been reduced; The green wall previously proposed to part of the north elevation has now been removed; Solar panels in place of green roof on the western part of the building.	10-Feb-21	APP	Q01	Adur DC	15		

AWDM/0947/20	Land East Of Shadwells Road At Mash Barn Estate Mash Barn Lane Lancing West Sussex	Application to vary condition 1 of previously approved AWDM/0961/17. Amendment: Reconfiguration of 21 residential dwellings located in the north west corner. No increase in number of dwellings and the number of parking spaces is unaffected.	22-Feb-21	APP	Q06	Adur DC	21		
AWDM/2134/20	Car Park Montague Centre Liverpool Gardens Worthing Central Worthing West Sussex	Demolition of existing building (12-14 Liverpool Gardens) and proposed temporary accommodation for relocated Central Clinic and creation of additional car parking and landscaping.	06-Apr-21	APP	Q06	Worthing BC			
Beeches Avenue = 90 houses						Worthing Local Plan	90		
Titnore Way = 100 houses						Worthing Local Plan	100		
Centenary House = 250 houses and 10,000 sqm employment floorspace						Worthing Local Plan	250	256	1 staff per 39 sqm (B1a/b/c, B2, B8)
Stoke Abbott Road = 7000sqm						Worthing Local Plan		250	1 staff per 28sqm based on TRICS
Decoy Farm = 18000 sqm employment						Worthing Local Plan		461	1 staff per 39 sqm (B1a/b/c, B2, B8)
Fulbeck Avenue = 120 homes						Worthing Local Plan	120		
Grafton = 150 homes, 2500 sqm commerical						Worthing Local Plan	150	64	1 staff per 39 sqm (B1a/b/c, B2, B8)
Barrington Road = 250 homes,						Worthing Local Plan	250		
Lyndhurst Road = 150 homes						Worthing Local Plan	150		
Martlets Way = 10,000 sqm employment						Worthing Local Plan		256	1 staff per 39 sqm (B1a/b/c, B2, B8)
Marine Parade = 60 homes and 2000 sqm of commercial						Worthing Local Plan	60	51	1 staff per 39 sqm (B1a/b/c, B2, B8)
Teville Gate = 250 homes, 4,000 sqm of commerical						Worthing Local Plan	250	103	1 staff per 39 sqm (B1a/b/c, B2, B8)
Titnore Lane = 60 homes						Worthing Local Plan	60		
Union Place = 150 homes, 700 sqm of commercial						Worthing Local Plan	150	18	
Upper Brighton Road = 123 homes						Worthing Local Plan	123		
Shoreham Harbour Regeneration 1100 minus the Free Wharf and Kingston Wharf consents						Adur Local Plan	305		
AWDM/0323/19	Land at West Sompting					Adur DC	469		
AWDM/ 2139/20	Pilot Pub					Adur DC	34		
						TOTAL	4083	3766	

APPENDIX 6.4
2033 BASE FLOWS WITHOUT MAJOR COMMITTED DEVELOPMENT (AM)
(HGVs)

TEMPro Growth Factor:
Horsham DC, AM



TEMPro Growth Factor:
Worthing DC, Truck Road, Urban, AM
2015 - 2033 = 1.1808

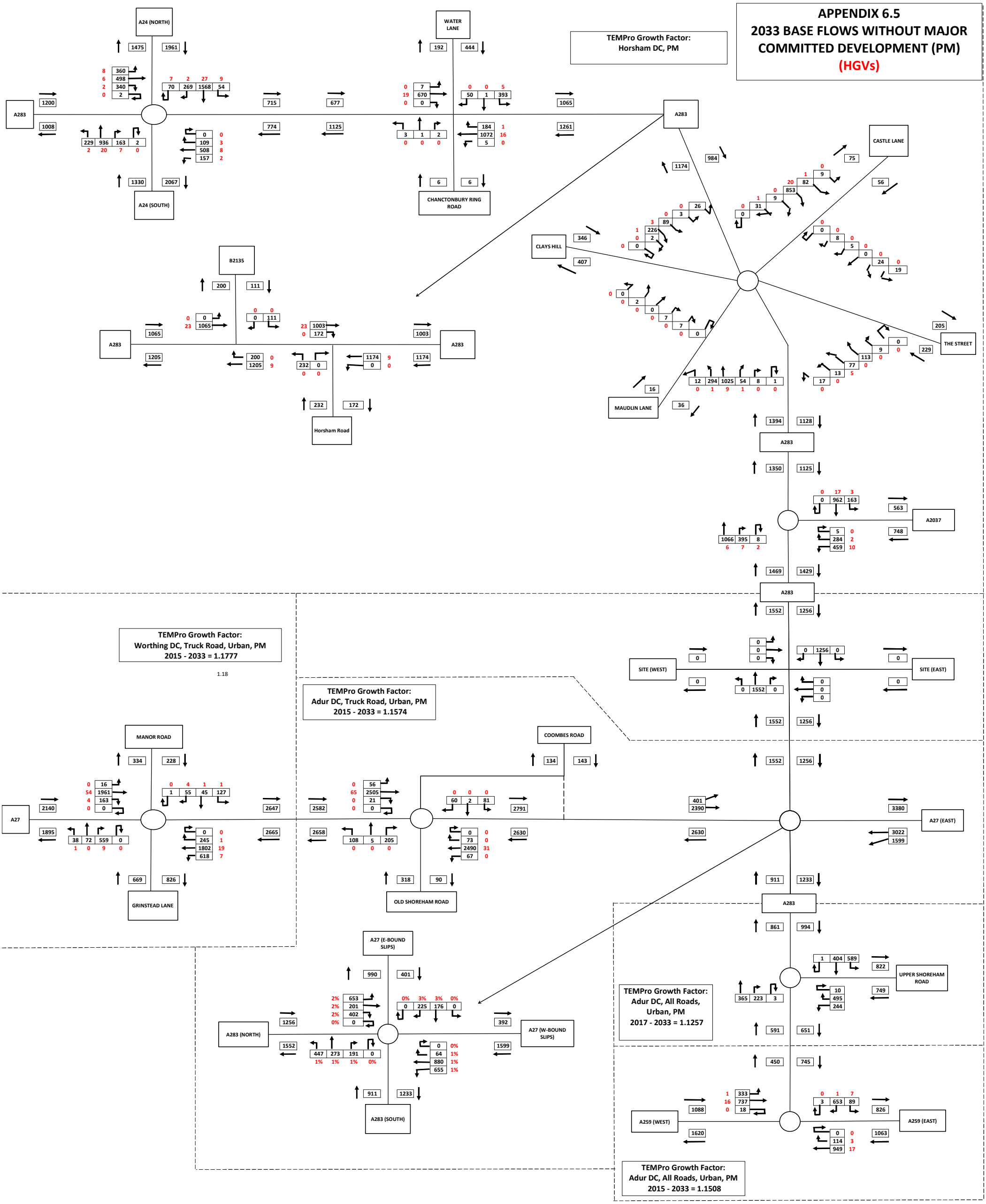
TEMPro Growth Factor:
Adur DC, Truck Road, Urban, AM
2015 - 2033 = 1.1600

TEMPro Growth Factor:
Adur DC, All Roads, Urban, AM
2017 - 2033 = 1.1294

TEMPro Growth Factor:
Adur DC, All Roads, Urban, AM
2015 - 2033 = 1.1534

APPENDIX 6.5
2033 BASE FLOWS WITHOUT MAJOR COMMITTED DEVELOPMENT (PM)
(HGVs)

TEMPro Growth Factor:
Horsham DC, PM



TEMPro Growth Factor:
Worthing DC, Truck Road, Urban, PM
2015 - 2033 = 1.1777

1.18

TEMPro Growth Factor:
Adur DC, Truck Road, Urban, PM
2015 - 2033 = 1.1574

TEMPro Growth Factor:
Adur DC, All Roads, Urban, PM
2017 - 2033 = 1.1257

TEMPro Growth Factor:
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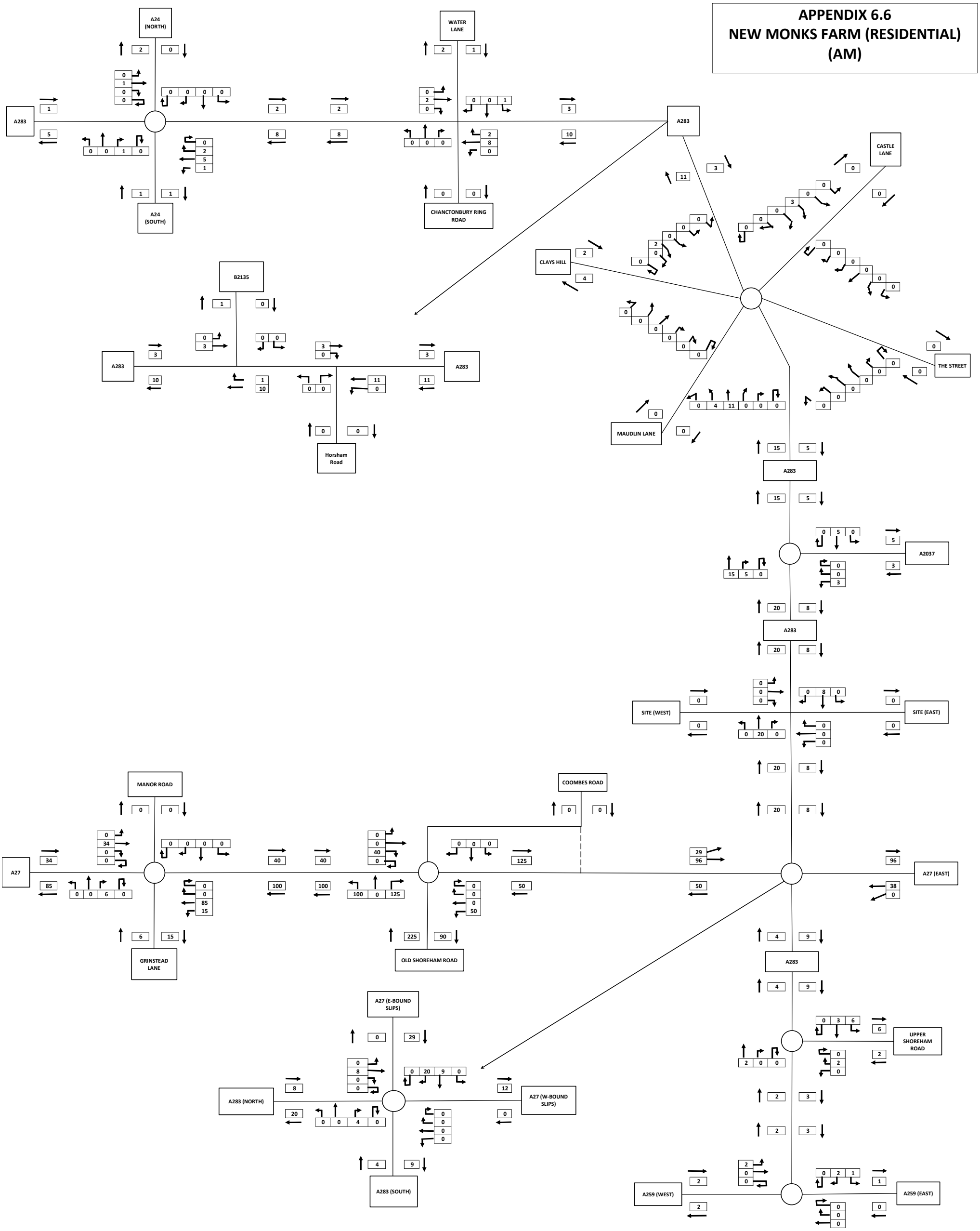
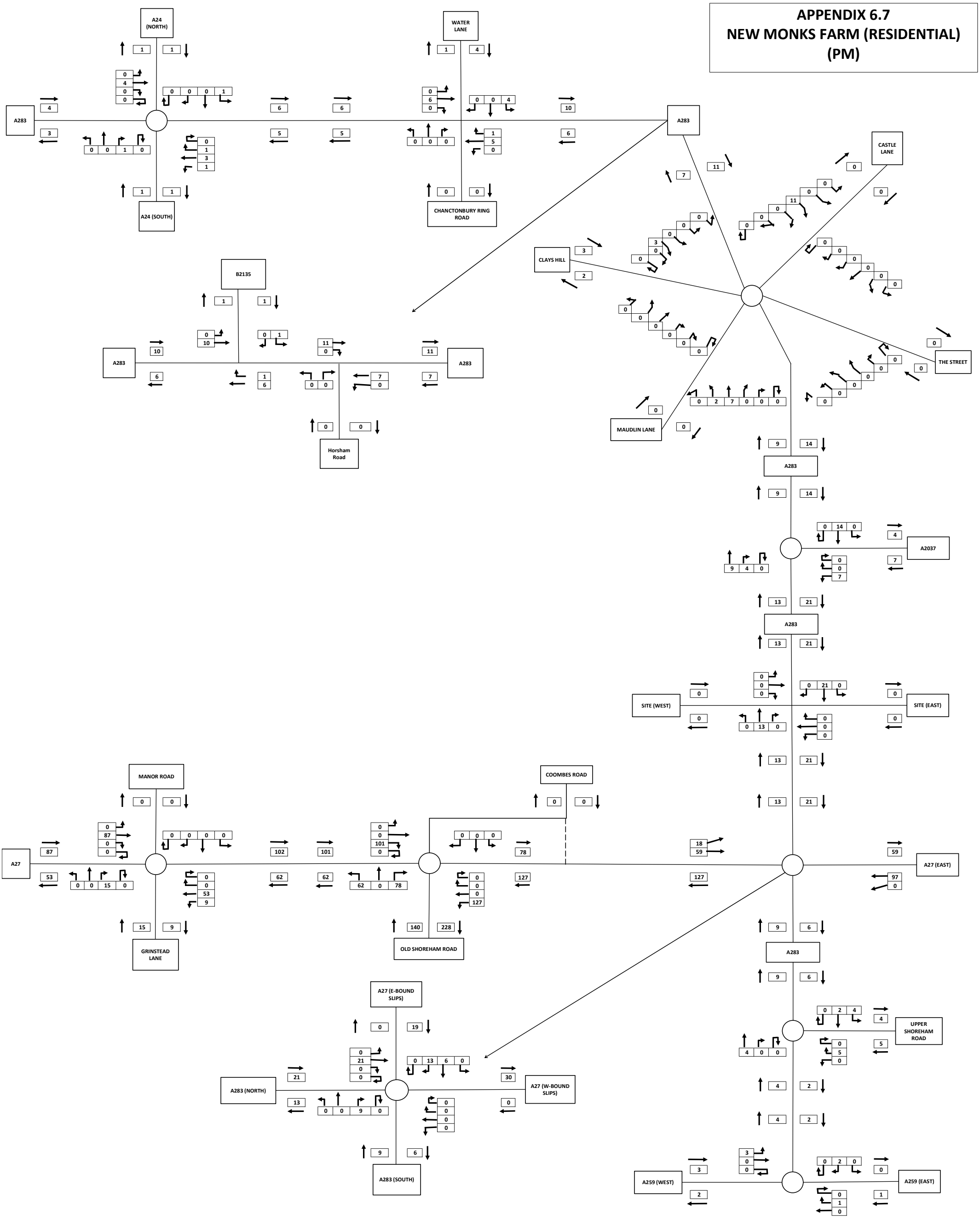
2015 - 2033 = 1.1508

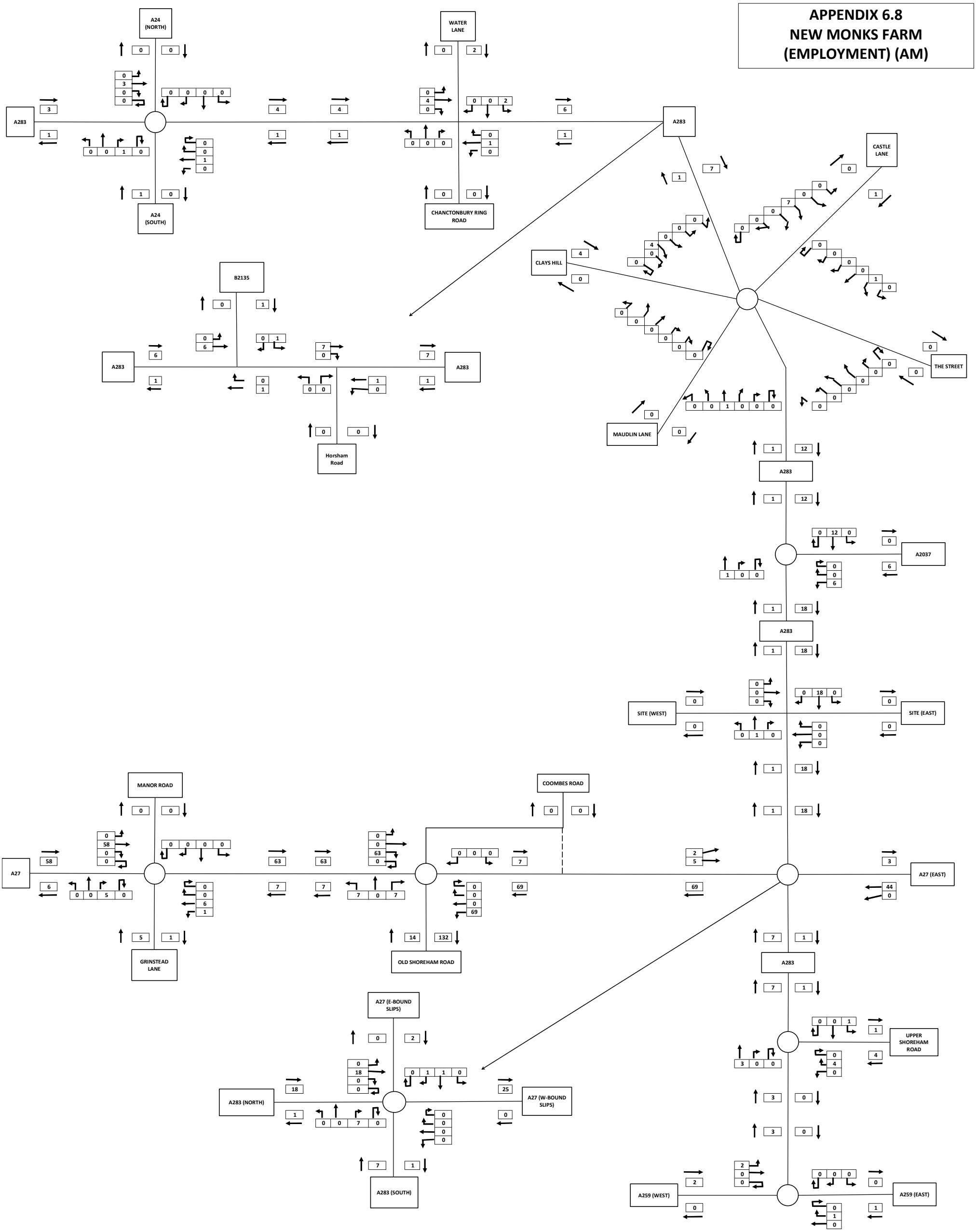
APPENDIX 6.6
NEW MONKS FARM (RESIDENTIAL)
(AM)



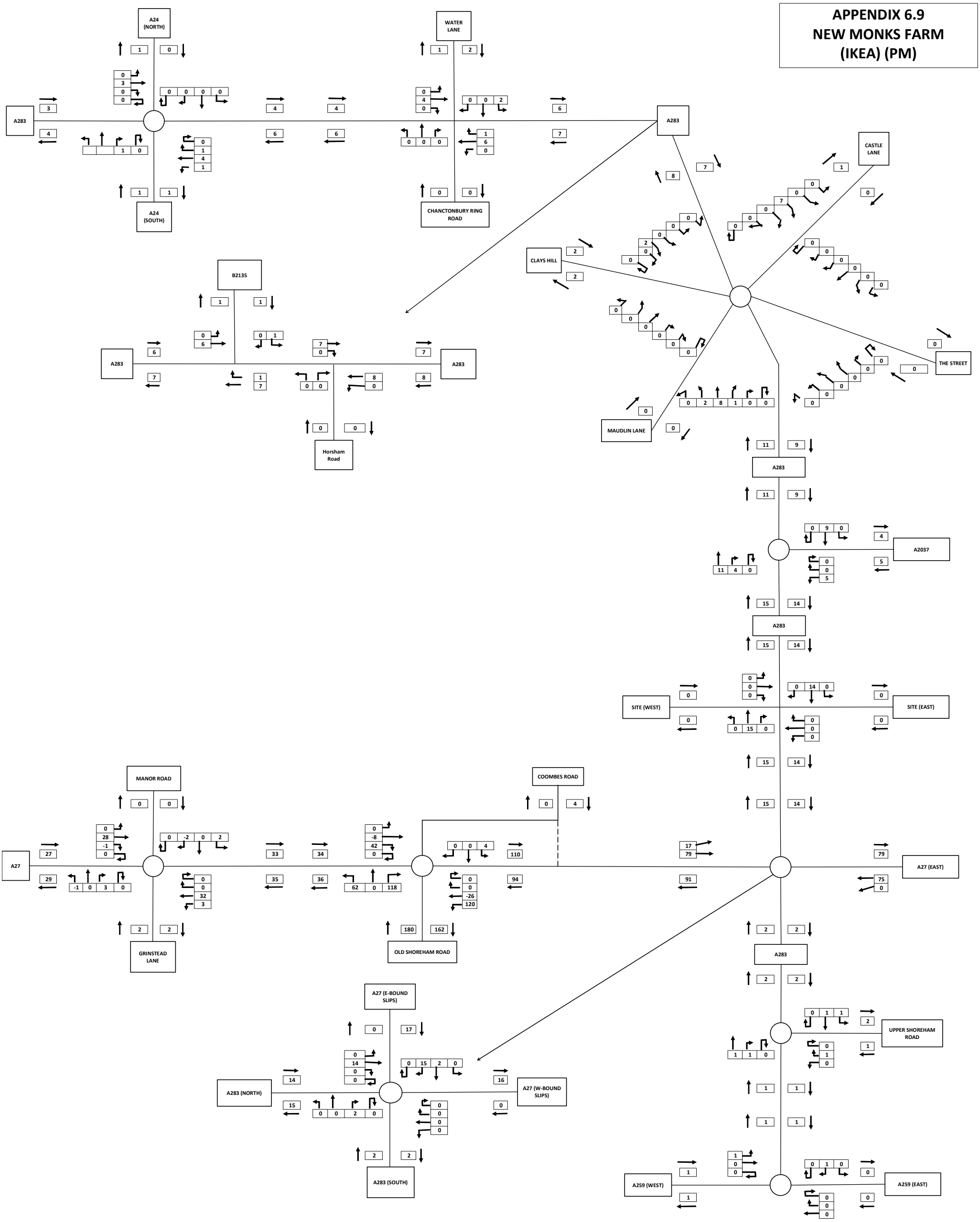
APPENDIX 6.7
NEW MONKS FARM (RESIDENTIAL)
(PM)



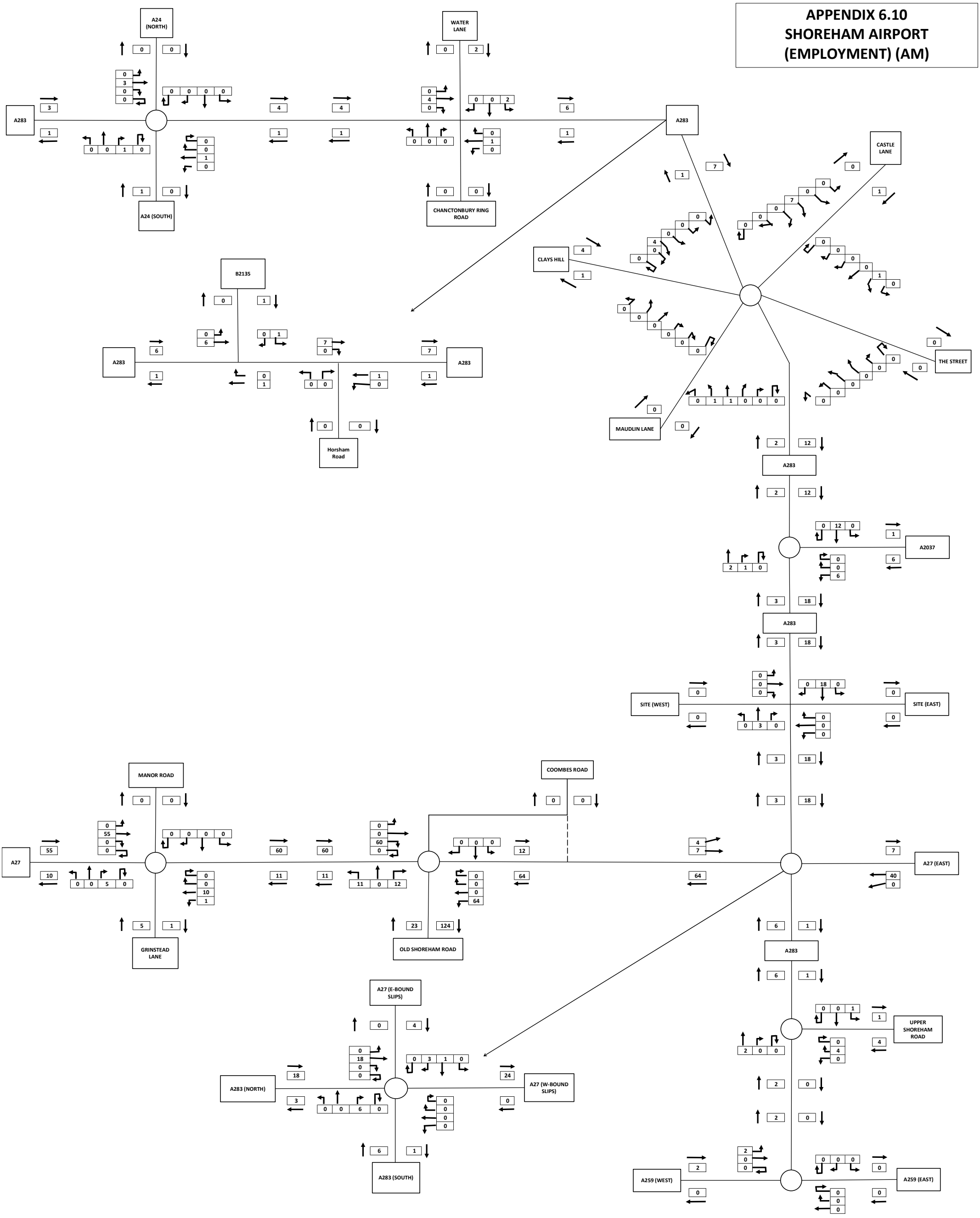
APPENDIX 6.8
NEW MONKS FARM
(EMPLOYMENT) (AM)



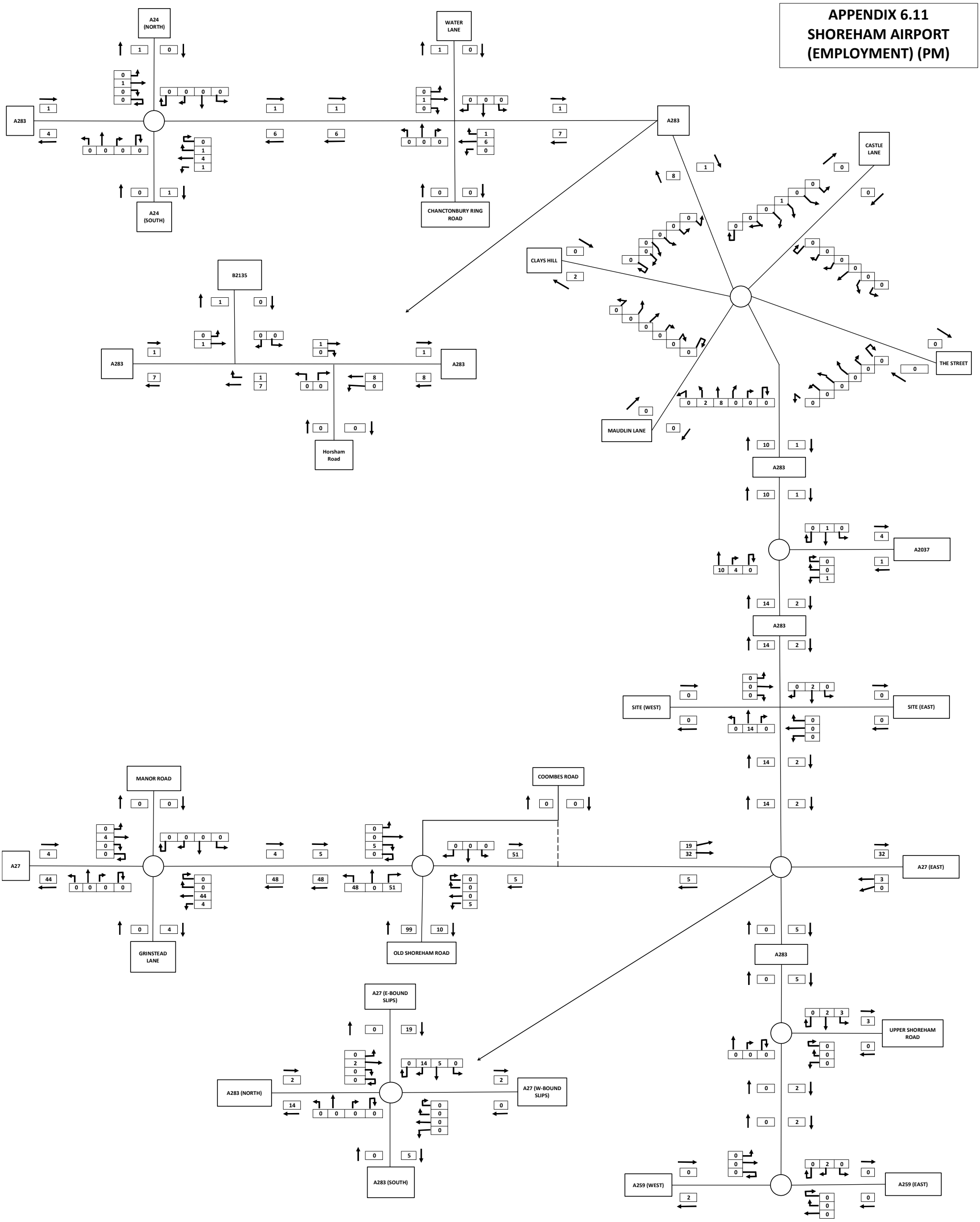
APPENDIX 6.9
NEW MONKS FARM
(IKEA) (PM)



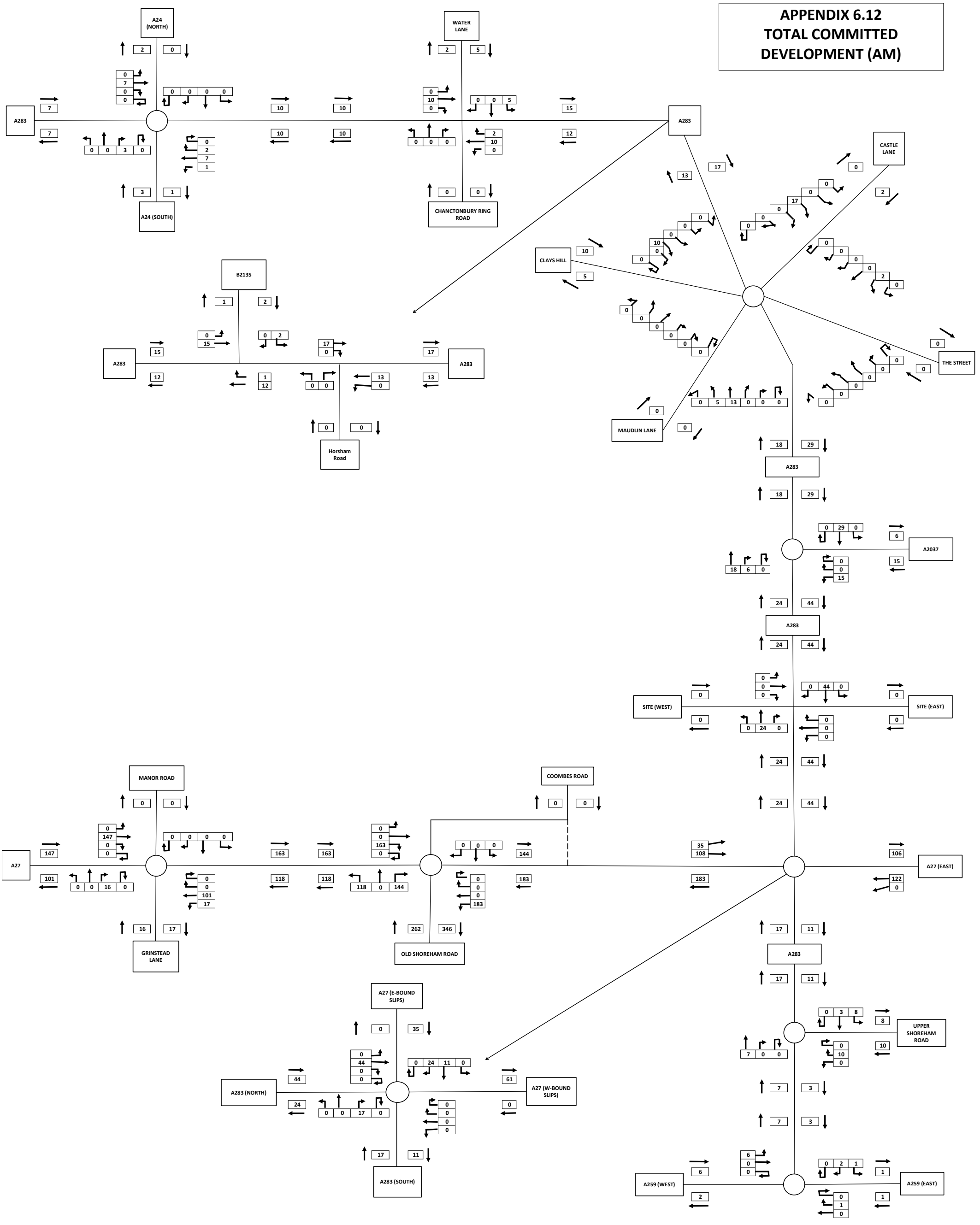
APPENDIX 6.10
SHOREHAM AIRPORT
(EMPLOYMENT) (AM)



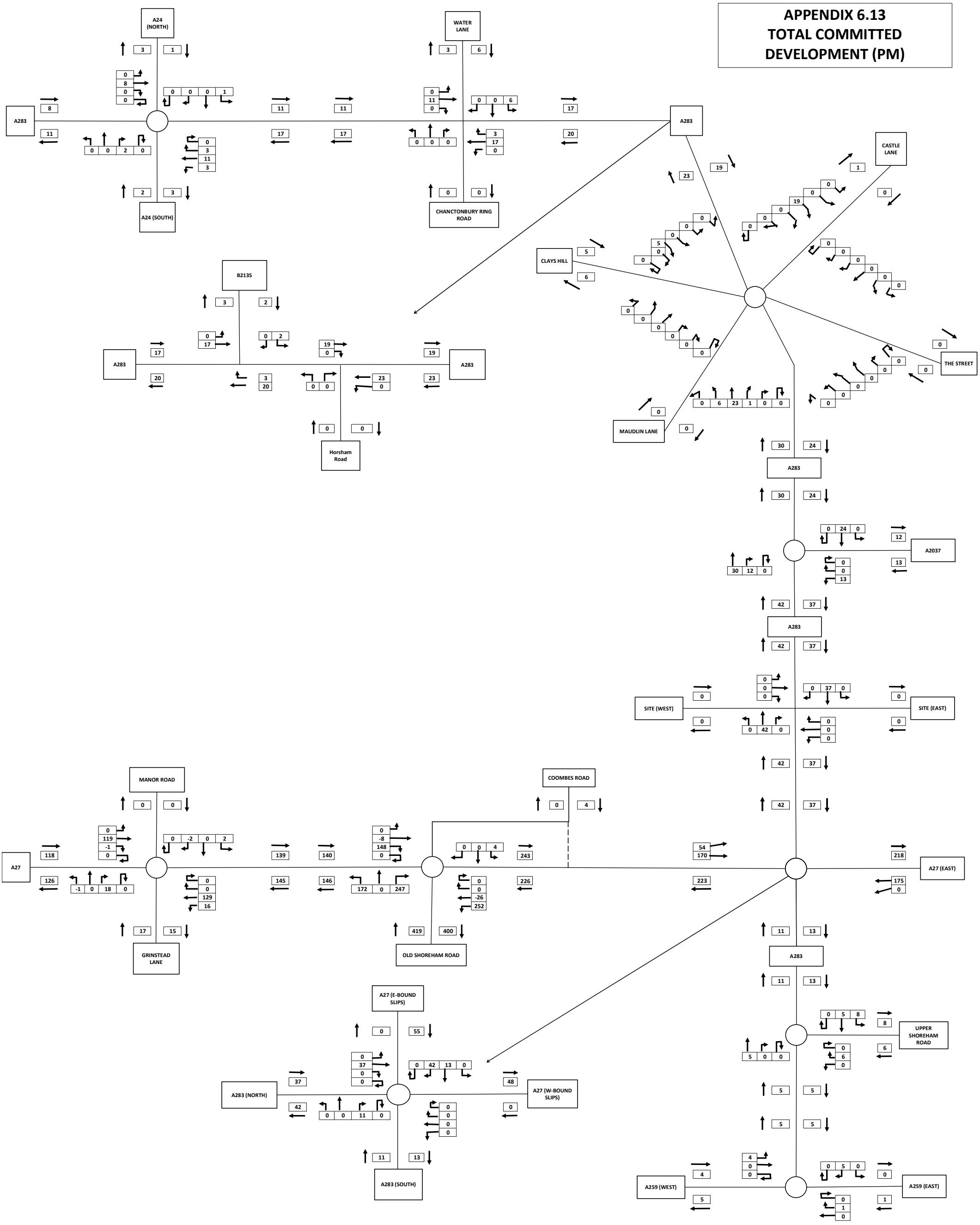
APPENDIX 6.11
SHOREHAM AIRPORT
(EMPLOYMENT) (PM)



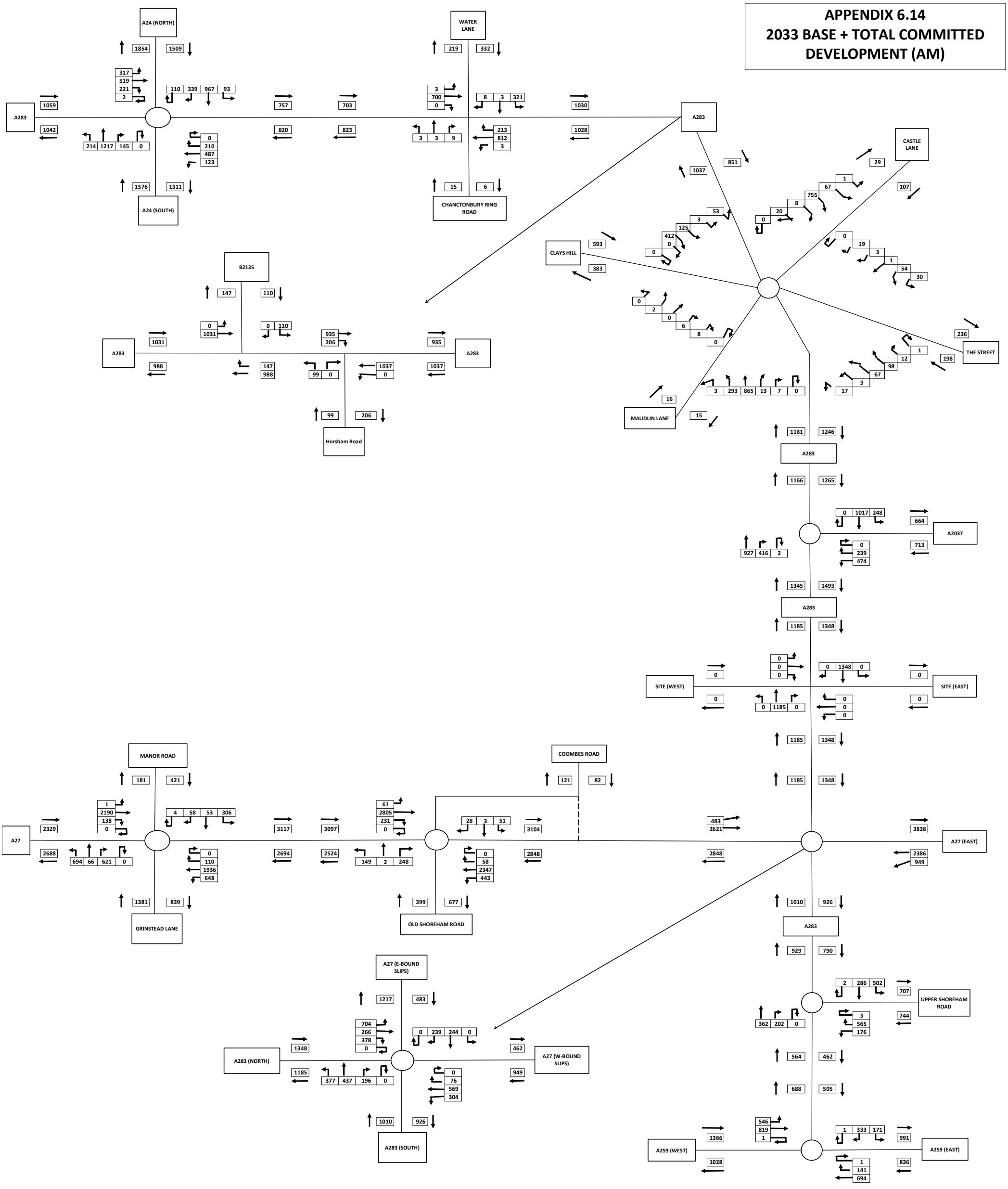
APPENDIX 6.12
TOTAL COMMITTED DEVELOPMENT (AM)



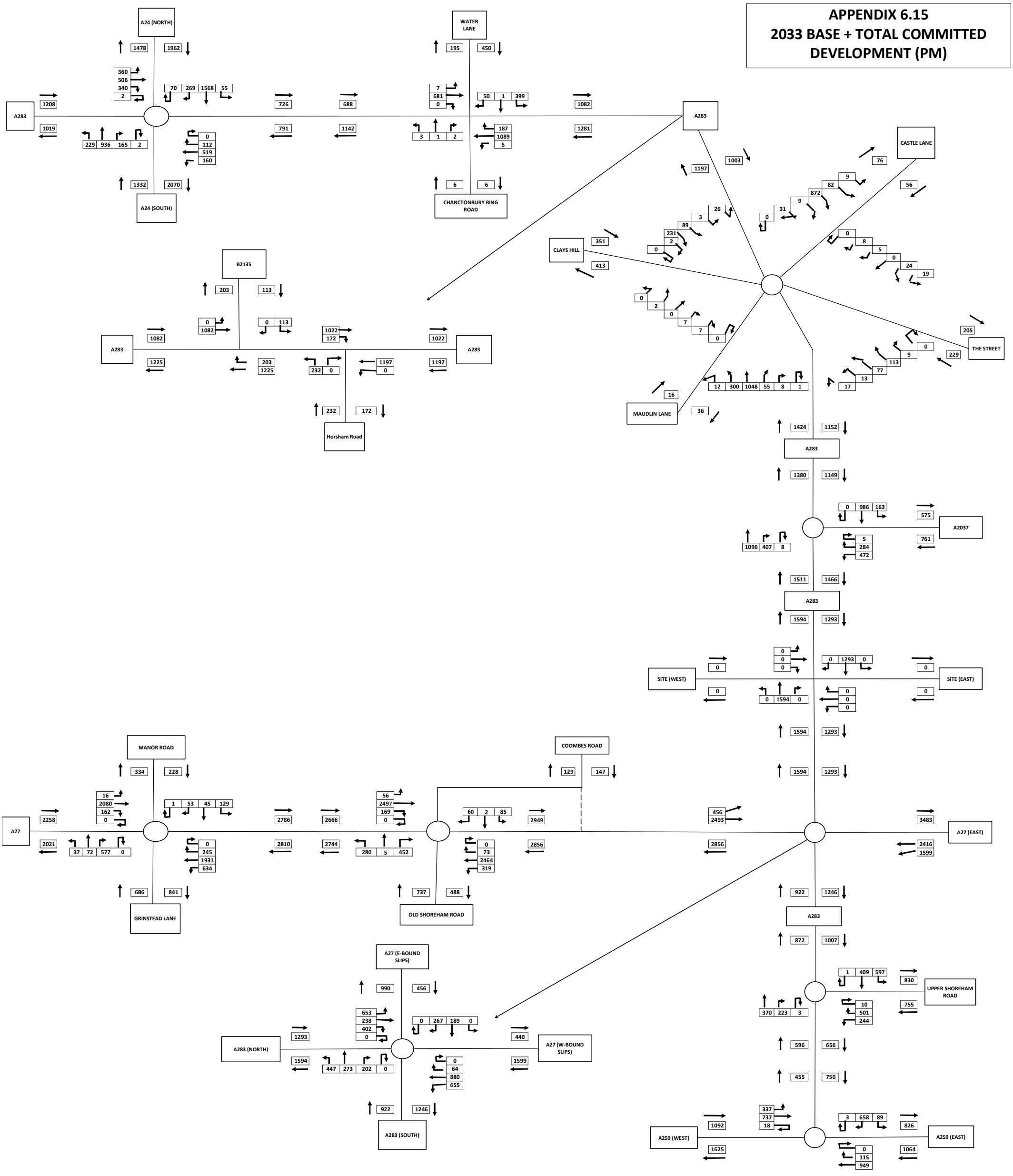
APPENDIX 6.13
TOTAL COMMITTED DEVELOPMENT (PM)



APPENDIX 6.14
2033 BASE + TOTAL COMMITTED DEVELOPMENT (AM)



APPENDIX 6.15
2033 BASE + TOTAL COMMITTED DEVELOPMENT (PM)



APPENDIX 7.0

SPEED SURVEY DATA

7.1 ATC 1: Northern Site Access
7.2 ATC 2: Southern Site Access

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Northbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Fri 16-Jul-21																
00:00	**49**	62	51.7	9.2	0	0	0	0	3	13	13	4	7	6	1	2
01:00	**18**	64.8	56.8	9.5	0	0	0	1	0	1	1	6	2	5	1	1
02:00	**13**	59.8	55	8.6	0	0	0	0	1	1	1	3	6	0	0	1
03:00	**21**	61.6	56.4	6	0	0	0	0	0	0	2	11	4	3	0	1
04:00	**38**	62.5	54.9	6.9	0	0	0	0	0	3	9	10	8	6	2	0
05:00	**103**	63.1	55.5	8.6	0	1	0	0	1	5	22	27	26	12	2	7
06:00	**340**	59	50.6	8.9	0	1	15	6	12	50	62	103	66	23	2	0
07:00	**797**	53.7	47.1	6.9	0	0	16	25	87	172	285	169	33	7	1	2
08:00	**822**	53.1	47.7	5	0	0	0	1	53	242	342	146	35	3	0	0
09:00	**716**	52.6	44.6	8.7	0	8	48	51	83	158	224	113	25	5	1	0
10:00	**713**	52	46	6.4	0	0	17	35	62	191	278	116	14	0	0	0
11:00	**852**	50.6	45.7	5.3	0	1	0	17	106	329	295	84	17	2	0	1
12:00	**902**	49.7	43.4	6.8	0	7	29	62	161	324	245	62	11	1	0	0
13:00	**881**	51.4	46.3	5.7	0	1	7	23	91	267	350	118	22	2	0	0
14:00	**985**	50.4	42.5	8.8	0	12	113	66	132	268	280	94	18	1	1	0
15:00	**1016**	50	44.9	5.4	0	1	11	24	149	405	340	73	13	0	0	0
16:00	**1174**	48.7	42.8	5.6	0	0	19	95	278	464	263	48	7	0	0	0
17:00	**1048**	47.8	38.4	9.7	1	43	203	118	162	311	144	59	7	0	0	0
18:00	**716**	53	45.5	8.2	0	7	43	20	67	200	228	108	36	7	0	0
19:00	**497**	55.9	50.3	5.8	0	0	0	1	13	103	155	152	61	10	2	0
20:00	**451**	55.2	49.7	5.8	0	0	0	0	22	87	172	121	37	9	2	1
21:00	**392**	55.3	48.7	6.7	0	0	2	5	38	87	118	97	36	7	1	1
22:00	**263**	56	49.1	6.6	0	0	0	1	24	63	78	57	35	3	1	1
23:00	**154**	56.9	49.8	7.2	0	0	0	1	17	27	43	39	18	7	1	1
12H,7-19	**10622**	**50.8**	**44.3**	**7.5**	**1**	**80**	**506**	**537**	**1431**	**3331**	**3274**	**1190**	**238**	**28**	**3**	**3**
16H,6-22	**12302**	**52**	**45.1**	**7.6**	**1**	**81**	**523**	**549**	**1516**	**3658**	**3781**	**1663**	**438**	**77**	**10**	**5**
18H,6-24	**12719**	**52.3**	**45.2**	**7.6**	**1**	**81**	**523**	**551**	**1557**	**3748**	**3902**	**1759**	**491**	**87**	**12**	**7**
24H,0-24	**12961**	**52.6**	**45.4**	**7.8**	**1**	**82**	**523**	**552**	**1562**	**3771**	**3950**	**1820**	**544**	**119**	**18**	**19**

APPENDIX 7.1
ATC 1: NORTHERN SITE ACCESS

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Northbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Sat 17-Jul-21																
00:00	**66**	62.6	54.8	8	0	0	0	1	1	3	14	25	10	5	4	3
01:00	**29**	64.2	53.3	10.2	0	0	0	2	2	3	3	8	3	5	3	0
02:00	**16**	64.4	57.3	7.1	0	0	0	0	0	1	1	7	0	6	1	0
03:00	**13**	63.8	58.9	8.6	0	0	0	0	0	1	2	1	3	4	1	1
04:00	**22**	67	54.9	10.8	0	0	0	0	2	2	6	2	5	1	1	3
05:00	**54**	61.5	54.5	9.2	0	1	0	0	0	7	5	20	12	4	3	2
06:00	**111**	62.6	54.2	9.1	0	2	0	0	0	10	27	27	24	12	6	3
07:00	**291**	58.2	50.8	8.1	0	3	0	10	21	25	69	97	50	12	3	1
08:00	**445**	56.1	50	7.2	0	6	0	3	21	66	141	140	56	11	0	1
09:00	**595**	53.6	47.6	6.6	0	8	4	3	44	131	243	138	20	4	0	0
10:00	**828**	50.5	45	6.4	0	5	17	35	94	293	290	80	13	1	0	0
11:00	**934**	50.4	44.8	6	0	3	13	35	146	329	304	93	9	2	0	0
12:00	**830**	50.4	43.9	7.2	0	5	35	58	136	235	271	78	11	1	0	0
13:00	**785**	53.1	45.3	8.8	2	19	42	11	73	204	255	145	31	3	0	0
14:00	**722**	52.6	46.8	6	0	0	13	9	52	237	263	120	24	1	3	0
15:00	**671**	53.8	47.4	6.7	0	0	16	16	56	138	269	135	35	4	0	2
16:00	**612**	54.3	47.6	7	0	0	24	2	43	140	226	130	42	5	0	0
17:00	**691**	53.2	46.2	7.4	0	2	25	34	58	180	230	130	27	3	1	1
18:00	**563**	54.4	48.5	5.7	0	0	0	4	50	112	226	126	40	5	0	0
19:00	**407**	56.9	50.3	6.7	0	0	1	3	19	80	123	110	50	16	3	2
20:00	**454**	55	49.1	6.1	0	1	0	1	25	104	169	106	35	11	1	1
21:00	**413**	54.2	47.6	6.6	0	0	2	10	45	96	159	60	33	5	2	1
22:00	**275**	53.7	47.2	6.3	0	0	0	4	32	90	78	54	13	2	0	2
23:00	**195**	56	50.1	6.7	0	0	0	6	10	34	47	68	26	2	2	0
12H,7-19	**7967**	**53.3**	**46.5**	**7.2**	**2**	**51**	**189**	**220**	**794**	**2090**	**2787**	**1412**	**358**	**52**	**7**	**5**
16H,6-22	**9352**	**53.7**	**46.9**	**7.2**	**2**	**54**	**192**	**234**	**883**	**2380**	**3265**	**1715**	**500**	**96**	**19**	**12**
18H,6-24	**9822**	**53.8**	**47**	**7.2**	**2**	**54**	**192**	**244**	**925**	**2504**	**3390**	**1837**	**539**	**100**	**21**	**14**
24H,0-24	**10022**	**54**	**47.2**	**7.3**	**2**	**55**	**192**	**247**	**930**	**2521**	**3421**	**1900**	**572**	**125**	**34**	**23**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Northbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Sun 18-Jul-21																
00:00	**80**	59.1	51.9	7.8	0	0	0	3	2	9	23	20	17	3	1	2
01:00	**31**	58.4	53	6.4	0	0	0	0	1	0	12	10	6	1	0	1
02:00	**17**	65.9	55.9	10	0	0	0	0	2	0	3	4	3	2	2	1
03:00	**10**	-	60	10.1	0	0	0	0	0	0	3	1	1	2	1	2
04:00	**15**	59.8	51	11	0	0	1	0	2	1	2	4	3	1	1	0
05:00	**43**	64.4	55.7	8.2	0	0	0	0	1	3	11	6	11	6	4	1
06:00	**84**	62.9	54.6	10.6	0	2	0	3	0	4	11	33	16	5	2	8
07:00	**189**	60.7	52.1	9.1	0	3	0	4	8	20	41	59	27	19	5	3
08:00	**350**	58.8	50.6	9.3	0	7	3	2	10	69	97	82	48	16	6	10
09:00	**524**	54.3	46.6	7.8	0	5	11	8	83	126	141	109	33	7	1	0
10:00	**663**	51.4	43.7	8.9	0	11	54	32	90	192	177	79	21	5	2	0
11:00	**836**	50.3	44.1	7.1	0	3	37	38	129	307	226	73	19	2	1	1
12:00	**778**	49.5	42.1	7.9	1	12	47	70	164	228	198	46	11	1	0	0
13:00	**740**	51.4	45.3	7.3	0	1	40	28	60	239	253	89	26	3	1	0
14:00	**636**	52.8	46.2	6.7	0	0	9	28	76	189	206	89	32	6	1	0
15:00	**603**	52.9	46.4	6.6	0	0	5	25	71	187	190	89	28	4	3	1
16:00	**655**	53	47.9	5.2	0	0	0	5	45	158	304	110	28	3	1	1
17:00	**577**	54.7	49.1	5.9	0	0	0	6	27	125	222	149	37	5	3	3
18:00	**609**	53.9	48.1	5.4	0	0	0	3	37	173	228	132	29	7	0	0
19:00	**542**	53.8	46.9	7.6	0	5	9	19	56	122	187	113	21	6	2	2
20:00	**478**	55.3	49.6	6.1	0	2	0	2	19	91	180	131	42	9	2	0
21:00	**420**	54.1	47.7	6.2	0	0	0	4	47	117	142	75	27	6	1	1
22:00	**208**	58	50	7.4	0	0	0	2	20	36	70	38	26	12	3	1
23:00	**72**	62.9	53.5	8.6	0	0	0	0	5	9	15	17	11	10	3	2
12H,7-19	**7160**	**53.2**	**46.2**	**7.6**	**1**	**42**	**206**	**249**	**800**	**2013**	**2283**	**1106**	**339**	**78**	**24**	**19**
16H,6-22	**8684**	**53.6**	**46.5**	**7.6**	**1**	**51**	**215**	**277**	**922**	**2347**	**2803**	**1458**	**445**	**104**	**31**	**30**
18H,6-24	**8964**	**53.8**	**46.7**	**7.6**	**1**	**51**	**215**	**279**	**947**	**2392**	**2888**	**1513**	**482**	**126**	**37**	**33**
24H,0-24	**9160**	**54**	**46.8**	**7.7**	**1**	**51**	**216**	**282**	**955**	**2405**	**2942**	**1558**	**523**	**141**	**46**	**40**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Northbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Mon 19-Jul-21																
00:00	**36**	63.1	53.8	8.4	0	0	0	0	1	7	6	8	6	5	3	0
01:00	**18**	60.7	51.8	8.5	0	0	0	0	3	0	7	1	4	3	0	0
02:00	**11**	58.1	52.6	8.7	0	0	0	0	0	2	4	2	2	0	0	1
03:00	**14**	65	54.9	10.7	0	0	0	0	1	3	1	3	1	3	1	1
04:00	**32**	63.1	54.8	8.2	0	0	0	0	0	4	9	5	7	4	2	1
05:00	**114**	62.4	54.9	9	0	2	0	0	0	9	19	35	28	12	3	6
06:00	**331**	59.1	52.3	7.4	0	1	3	6	6	28	82	114	66	19	3	3
07:00	**817**	54.2	46.6	8.4	0	9	42	23	79	148	273	185	54	4	0	0
08:00	**806**	53.8	48.2	5.6	0	1	0	9	60	169	349	171	39	8	0	0
09:00	**679**	53.9	49.1	4.8	0	0	0	0	22	117	340	166	30	1	1	2
10:00	**633**	52.7	46.1	7.6	0	12	11	18	54	172	233	113	15	3	0	2
11:00	**679**	50.9	46.6	5.4	0	0	4	17	48	218	295	74	20	3	0	0
12:00	**636**	53.2	46.1	7.6	0	2	28	20	52	195	196	109	24	8	2	0
13:00	**637**	52.7	45.7	7.9	0	8	30	15	73	143	235	107	23	3	0	0
14:00	**738**	52.3	45.9	6.4	0	3	4	28	117	196	248	119	21	2	0	0
15:00	**892**	50.7	45.2	6.1	0	1	11	35	134	307	286	105	6	5	1	1
16:00	**981**	50.1	43.5	8.1	0	33	20	61	142	341	288	70	20	6	0	0
17:00	**1006**	50.8	45.1	6.1	0	0	17	40	170	299	345	123	10	2	0	0
18:00	**685**	54.2	48.6	5.5	0	0	0	3	40	164	264	172	32	8	1	1
19:00	**486**	55.1	47.4	9	0	3	35	11	17	112	131	125	38	12	1	1
20:00	**435**	56.3	50.3	6.5	0	0	0	0	26	82	134	124	48	17	1	3
21:00	**315**	56.3	49.7	6.2	0	0	0	0	16	69	118	62	37	12	1	0
22:00	**238**	59.5	51.3	8	0	0	0	3	11	49	61	61	24	16	10	3
23:00	**92**	59.4	51.7	7.6	0	0	0	1	6	14	21	24	17	6	3	0
12H,7-19	**9189**	**52.6**	**46.2**	**6.9**	**0**	**69**	**167**	**269**	**991**	**2469**	**3352**	**1514**	**294**	**53**	**5**	**6**
16H,6-22	**10756**	**53.4**	**46.7**	**7.1**	**0**	**73**	**205**	**286**	**1056**	**2760**	**3817**	**1939**	**483**	**113**	**11**	**13**
18H,6-24	**11086**	**53.6**	**46.9**	**7.2**	**0**	**73**	**205**	**290**	**1073**	**2823**	**3899**	**2024**	**524**	**135**	**24**	**16**
24H,0-24	**11311**	**53.8**	**47**	**7.3**	**0**	**75**	**205**	**290**	**1078**	**2848**	**3945**	**2078**	**572**	**162**	**33**	**25**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Northbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Tue 20-Jul-21																
00:00	**53**	60.4	51.2	8.4	0	0	0	0	6	7	16	12	4	4	4	0
01:00	**15**	59.3	54.5	5.9	0	0	0	0	1	0	1	7	5	1	0	0
02:00	**12**	60.1	56.4	5.2	0	0	0	0	0	1	0	3	7	1	0	0
03:00	**22**	62.5	54.4	7.8	0	0	0	0	0	5	1	7	4	4	1	0
04:00	**40**	59.5	51.2	9.6	0	1	0	0	0	9	12	8	5	1	4	0
05:00	**105**	64.6	56.9	8.6	0	1	0	0	1	4	11	36	22	19	3	8
06:00	**283**	59.2	51.9	8.1	0	5	3	3	4	18	86	73	75	16	0	0
07:00	**844**	51.9	45.8	7	0	1	11	76	81	206	323	108	25	13	0	0
08:00	**829**	52.8	45.3	8.6	0	1	80	45	32	188	308	140	30	3	2	0
09:00	**687**	52.6	46.6	6.6	0	3	23	3	40	220	258	111	27	2	0	0
10:00	**764**	50.5	44.5	7.4	0	14	21	30	94	263	252	69	17	4	0	0
11:00	**739**	51.5	46.5	5.1	0	1	0	2	71	286	258	106	11	3	1	0
12:00	**665**	53.6	47.2	6.2	0	0	0	5	84	213	216	91	40	14	1	1
13:00	**673**	53.6	47.1	6.5	0	0	3	24	67	189	239	97	43	8	3	0
14:00	**736**	51.3	41.5	10.8	0	38	105	46	65	172	193	101	16	0	0	0
15:00	**915**	50.6	45.4	5.7	0	1	12	15	138	322	313	97	15	2	0	0
16:00	**1043**	50.3	44.9	5.6	0	1	2	46	185	371	326	92	18	2	0	0
17:00	**1066**	50.4	43.4	7.8	0	7	78	55	168	339	297	105	13	2	2	0
18:00	**765**	51.5	45	7.7	0	1	43	44	79	205	269	92	25	5	2	0
19:00	**542**	54.6	48.3	6.7	0	2	0	18	28	135	195	113	41	5	3	2
20:00	**545**	54.1	47.5	7.2	0	3	9	16	48	108	215	103	34	6	2	1
21:00	**430**	54.3	48.1	6.4	0	1	0	7	35	105	169	73	27	11	2	0
22:00	**254**	56.5	49.5	7.2	0	1	1	1	20	48	88	53	31	7	2	2
23:00	**91**	59.8	53.4	6.4	0	0	0	0	0	10	22	32	17	6	4	0
12H,7-19	**9726**	**51.4**	**45.2**	**7.4**	**0**	**68**	**378**	**391**	**1104**	**2974**	**3252**	**1209**	**280**	**58**	**11**	**1**
16H,6-22	**11526**	**52.3**	**45.7**	**7.4**	**0**	**79**	**390**	**435**	**1219**	**3340**	**3917**	**1571**	**457**	**96**	**18**	**4**
18H,6-24	**11871**	**52.6**	**45.8**	**7.5**	**0**	**80**	**391**	**436**	**1239**	**3398**	**4027**	**1656**	**505**	**109**	**24**	**6**
24H,0-24	**12118**	**52.9**	**46**	**7.6**	**0**	**82**	**391**	**436**	**1247**	**3424**	**4068**	**1729**	**552**	**139**	**36**	**14**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Northbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Wed 21-Jul-21																
00:00	**49**	62.4	52.5	8.5	0	0	0	0	3	8	13	11	5	4	5	0
01:00	**19**	59.7	54.8	5.7	0	0	0	0	1	0	1	10	5	2	0	0
02:00	**13**	59.8	55	6.1	0	0	0	0	0	2	0	4	6	1	0	0
03:00	**22**	63.7	56.2	7.3	0	0	0	0	0	3	1	7	4	6	1	0
04:00	**35**	60	52.6	9.4	0	1	0	0	0	5	8	8	9	2	2	0
05:00	**117**	65.3	57.3	8.9	0	1	0	0	1	7	12	33	26	22	5	10
06:00	**300**	59.4	52	8.3	0	6	2	3	4	22	88	80	72	21	2	0
07:00	**829**	51.1	45.5	6.8	0	1	13	70	86	220	312	97	21	9	0	0
08:00	**797**	53.3	45.8	8.5	0	1	65	43	37	168	299	142	32	7	3	0
09:00	**676**	52.9	46.6	6.8	0	5	21	2	41	215	245	120	24	3	0	0
10:00	**763**	50.5	44.4	7.6	0	18	18	33	87	266	249	72	16	4	0	0
11:00	**732**	51.3	46.5	5	0	1	0	1	69	275	269	102	11	3	1	0
12:00	**677**	53.4	47.1	6.1	0	0	0	7	88	208	226	97	37	12	1	1
13:00	**669**	53.7	47.2	6.5	0	0	4	22	64	180	245	98	45	8	3	0
14:00	**762**	50.9	40.9	11.2	0	50	116	43	65	174	202	98	13	1	0	0
15:00	**883**	50.7	45.3	5.9	0	1	13	20	140	300	293	99	15	2	0	0
16:00	**1023**	50.4	44.9	5.7	0	1	2	43	183	363	312	97	20	2	0	0
17:00	**1099**	50.3	43.2	8.1	0	11	92	48	168	353	304	105	14	2	2	0
18:00	**787**	51.8	45.1	7.6	0	2	42	43	72	230	263	104	25	5	1	0
19:00	**538**	54.6	48.3	6.6	0	2	0	16	27	141	191	111	37	9	2	2
20:00	**542**	54.3	47.7	7.4	0	4	9	17	38	106	218	102	38	7	2	1
21:00	**416**	54.2	47.9	6.4	0	1	0	8	40	100	160	70	26	9	2	0
22:00	**263**	56	49	7.3	0	1	2	2	21	53	97	47	30	6	2	2
23:00	**91**	60.6	53.7	7.3	0	0	0	0	0	12	23	27	16	5	7	1
12H,7-19	**9697**	**51.5**	**45.1**	**7.5**	**0**	**91**	**386**	**375**	**1100**	**2952**	**3219**	**1231**	**273**	**58**	**11**	**1**
16H,6-22	**11493**	**52.4**	**45.6**	**7.6**	**0**	**104**	**397**	**419**	**1209**	**3321**	**3876**	**1594**	**446**	**104**	**19**	**4**
18H,6-24	**11847**	**52.6**	**45.8**	**7.6**	**0**	**105**	**399**	**421**	**1230**	**3386**	**3996**	**1668**	**492**	**115**	**28**	**7**
24H,0-24	**12102**	**53**	**46**	**7.8**	**0**	**107**	**399**	**421**	**1235**	**3411**	**4031**	**1741**	**547**	**152**	**41**	**17**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Northbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Thu 22-Jul-21																
00:00	**45**	61.9	51.8	9	0	0	0	0	5	8	9	10	5	4	4	0
01:00	**15**	60.1	54.8	6.3	0	0	0	0	1	0	1	7	4	2	0	0
02:00	**16**	60.4	55.7	7.9	0	0	0	0	0	3	0	4	7	1	0	1
03:00	**21**	63.4	56.4	7	0	0	0	0	0	2	2	6	5	5	1	0
04:00	**39**	60.4	52.9	9.5	0	1	0	0	0	5	10	9	8	3	3	0
05:00	**118**	64.3	56.1	8.7	0	1	0	0	2	6	18	35	26	18	4	8
06:00	**325**	59.8	52.4	8.1	0	4	3	5	4	24	83	99	71	29	2	1
07:00	**864**	51.4	45.6	6.8	0	1	14	66	94	232	318	105	26	8	0	0
08:00	**824**	53.3	45.8	8.3	0	1	64	40	49	180	297	153	33	5	2	0
09:00	**686**	53.1	46.8	6.8	0	5	21	2	39	207	253	132	24	3	0	0
10:00	**744**	50.6	44.4	7.7	0	20	15	31	85	260	242	75	12	3	0	1
11:00	**735**	51.2	46.6	5	0	1	0	1	64	278	277	96	13	4	1	0
12:00	**712**	52.8	46.8	6	0	0	0	6	100	229	235	97	34	9	1	1
13:00	**665**	53.3	47.8	5.3	0	0	2	10	30	183	282	125	30	3	0	0
14:00	**731**	52.2	46.3	5.7	0	0	2	20	90	230	250	118	20	1	0	0
15:00	**884**	52.2	46.4	5.7	0	0	0	27	106	274	308	144	21	3	0	1
16:00	**1091**	50.6	42.1	8.9	0	18	96	118	198	285	228	115	26	6	0	1
17:00	**1059**	50.5	44	7.1	0	4	43	66	167	352	297	115	10	2	2	1
18:00	**811**	52.2	46	6.9	0	0	19	44	84	219	297	106	31	9	2	0
19:00	**564**	55.2	48.9	6.7	0	3	1	9	35	113	205	135	50	9	3	1
20:00	**500**	55.8	49.5	6.5	0	1	1	9	21	107	160	132	57	10	2	0
21:00	**314**	56.5	50.2	6.9	0	0	0	0	29	50	93	91	37	7	4	3
22:00	**203**	59	51	7.2	0	0	0	0	6	46	65	42	22	16	4	2
23:00	**84**	62.3	53	8.9	0	0	3	0	3	9	14	25	13	15	2	0
12H,7-19	**9806**	**51.9**	**45.5**	**7.1**	**0**	**50**	**276**	**431**	**1106**	**2929**	**3284**	**1381**	**280**	**56**	**8**	**5**
16H,6-22	**11509**	**53**	**46.2**	**7.2**	**0**	**58**	**281**	**454**	**1195**	**3223**	**3825**	**1838**	**495**	**111**	**19**	**10**
18H,6-24	**11796**	**53.2**	**46.3**	**7.3**	**0**	**58**	**284**	**454**	**1204**	**3278**	**3904**	**1905**	**530**	**142**	**25**	**12**
24H,0-24	**12050**	**53.5**	**46.5**	**7.4**	**0**	**60**	**284**	**454**	**1212**	**3302**	**3944**	**1976**	**585**	**175**	**37**	**21**

Data produced by
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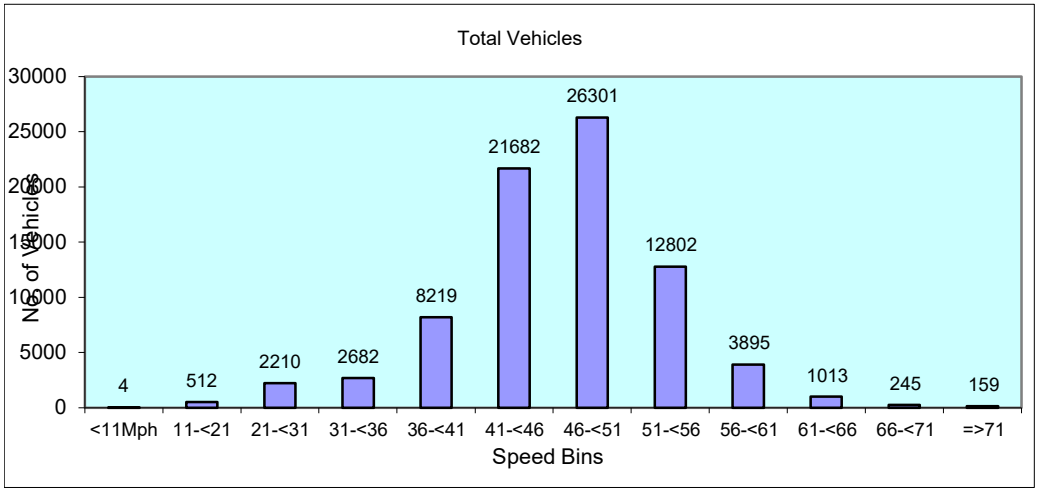
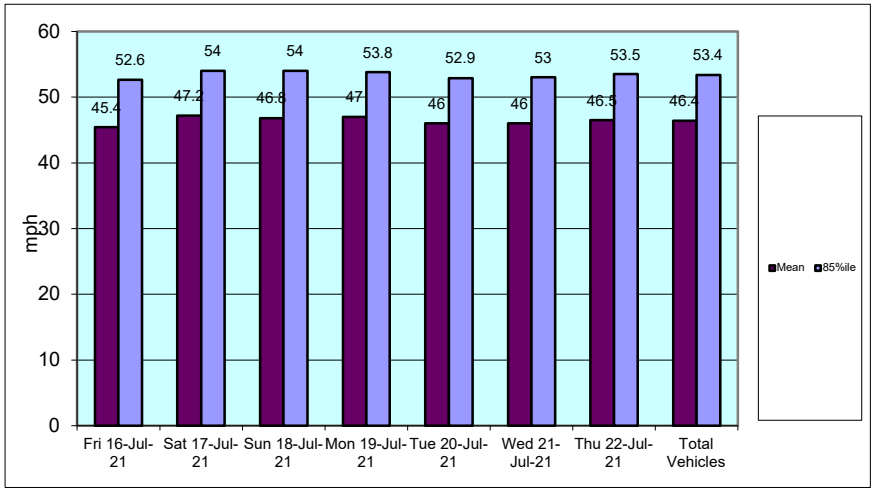
10638	JULY 2021	SHOREHAM BY SEA	Site No: 10638001 Channel: Northbound	Location	Site 1 - A283 Steyning Rd, Shoreham by Sea

Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Daily Totals																
Fri 16-Jul-21	**12961**	52.6	45.4	7.8	1	82	523	552	1562	3771	3950	1820	544	119	18	19
Sat 17-Jul-21	**10022**	54	47.2	7.3	2	55	192	247	930	2521	3421	1900	572	125	34	23
Sun 18-Jul-21	**9160**	54	46.8	7.7	1	51	216	282	955	2405	2942	1558	523	141	46	40
Mon 19-Jul-21	**11311**	53.8	47	7.3	0	75	205	290	1078	2848	3945	2078	572	162	33	25
Tue 20-Jul-21	**12118**	52.9	46	7.6	0	82	391	436	1247	3424	4068	1729	552	139	36	14
Wed 21-Jul-21	**12102**	53	46	7.8	0	107	399	421	1235	3411	4031	1741	547	152	41	17
Thu 22-Jul-21	**12050**	53.5	46.5	7.4	0	60	284	454	1212	3302	3944	1976	585	175	37	21
Total Vehicles																
[--]	**79724**	53.4	46.4	7.6	4	512	2210	2682	8219	21682	26301	12802	3895	1013	245	159





Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Southbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Fri 16-Jul-21																
00:00	**28**	61.5	55.6	7.6	0	0	0	0	1	1	6	5	10	3	1	1
01:00	**10**	58.5	51.5	7.3	0	0	0	0	0	4	0	2	4	0	0	0
02:00	**9**	-	52.4	10	0	0	0	1	0	1	2	1	2	2	0	0
03:00	**6**	-	48.5	10.1	0	0	0	0	2	1	0	2	0	1	0	0
04:00	**12**	62.8	54.8	8.6	0	0	0	0	0	1	4	3	1	2	0	1
05:00	**58**	61.7	55.9	7	0	0	0	0	0	3	10	18	17	6	1	3
06:00	**263**	58.5	49.2	10.1	1	6	10	2	15	32	82	53	45	12	5	0
07:00	**681**	52.1	46.1	5.8	0	1	1	15	85	261	194	98	22	4	0	0
08:00	**893**	49.8	44.5	5.4	0	0	7	37	145	378	251	61	13	1	0	0
09:00	**757**	49.6	43.9	5.8	0	4	5	30	158	305	195	52	6	2	0	0
10:00	**758**	49.7	44.4	5.4	0	0	4	28	142	315	208	50	7	4	0	0
11:00	**778**	48.6	43.4	5	0	1	4	23	195	356	160	34	4	1	0	0
12:00	**803**	48.3	40.6	9	12	26	51	61	179	284	151	31	8	0	0	0
13:00	**864**	48.8	42.9	5.7	0	1	11	76	209	319	207	36	5	0	0	0
14:00	**947**	46.9	40.8	7.3	2	29	37	64	266	379	149	20	1	0	0	0
15:00	**1115**	45.8	40.9	5.9	0	6	37	127	349	443	126	24	2	1	0	0
16:00	**1055**	46.2	36.4	10.8	16	112	136	125	244	258	133	24	6	1	0	0
17:00	**1052**	47.3	41.6	6.2	1	1	59	63	285	437	180	22	4	0	0	0
18:00	**850**	49.9	44.8	5.8	0	5	9	22	113	362	268	56	11	4	0	0
19:00	**435**	54.4	48	6.7	1	1	2	8	34	97	175	76	29	11	1	0
20:00	**327**	53.8	47.5	6.8	0	1	1	7	34	87	116	56	16	6	0	3
21:00	**223**	52.4	47.2	5.5	0	0	0	0	25	67	90	26	12	3	0	0
22:00	**146**	54.5	47.8	7.3	0	0	0	5	14	42	50	18	9	4	4	0
23:00	**87**	55.8	48.6	7.8	0	0	0	1	10	25	25	13	6	3	4	0
12H,7-19	**10553**	**48.8**	**42.3**	**7.3**	**31**	**186**	**361**	**671**	**2370**	**4097**	**2222**	**508**	**89**	**18**	**0**	**0**
16H,6-22	**11801**	**49.5**	**42.9**	**7.5**	**33**	**194**	**374**	**688**	**2478**	**4380**	**2685**	**719**	**191**	**50**	**6**	**3**
18H,6-24	**12034**	**49.6**	**43**	**7.5**	**33**	**194**	**374**	**694**	**2502**	**4447**	**2760**	**750**	**206**	**57**	**14**	**3**
24H,0-24	**12157**	**49.7**	**43.1**	**7.6**	**33**	**194**	**374**	**695**	**2505**	**4458**	**2782**	**781**	**240**	**71**	**16**	**8**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Southbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Sat 17-Jul-21																
00:00	**39**	62.1	52.9	9.5	0	0	0	0	5	4	7	11	5	3	2	2
01:00	**14**	59.9	54.2	6.6	0	0	0	0	0	2	3	1	7	1	0	0
02:00	**15**	60.4	54.5	6.7	0	0	0	0	0	2	3	2	6	2	0	0
03:00	**13**	58.8	52	7.8	0	0	0	0	0	3	4	3	1	1	1	0
04:00	**17**	63.4	56.1	6.8	0	0	0	0	0	0	5	4	3	4	1	0
05:00	**41**	66.4	58	7.6	0	0	0	0	0	0	9	7	14	4	4	3
06:00	**124**	60.7	53.7	7.2	0	0	0	0	1	14	28	45	18	10	5	3
07:00	**269**	57.2	50.2	7.2	0	2	0	4	12	42	96	64	33	14	2	0
08:00	**500**	53.4	47	6.7	0	2	7	19	31	140	186	84	26	5	0	0
09:00	**713**	50.3	45.2	5.8	0	2	11	8	101	275	241	55	16	4	0	0
10:00	**798**	49.5	43.7	6.4	0	5	26	21	147	336	204	43	13	3	0	0
11:00	**852**	48.4	41.8	7.4	0	24	21	76	195	333	155	43	4	1	0	0
12:00	**1009**	46.4	40.3	7.3	0	11	90	104	283	359	116	39	6	1	0	0
13:00	**818**	49.4	43	7.1	0	16	17	49	168	311	199	45	11	1	1	0
14:00	**760**	50.2	45.1	5.4	0	1	5	15	115	310	238	64	8	4	0	0
15:00	**730**	50.3	44.2	6.9	0	13	8	15	149	264	197	70	12	1	0	1
16:00	**637**	50.4	44.9	6.1	0	4	3	16	109	246	187	50	19	3	0	0
17:00	**636**	50.5	45.3	5.8	0	4	4	7	93	256	195	63	12	1	1	0
18:00	**496**	52	46.5	6.4	0	1	13	4	45	149	194	74	10	5	1	0
19:00	**363**	54.6	48.5	6.7	0	0	5	7	15	86	143	73	22	8	3	1
20:00	**283**	55.2	48.9	7.1	0	2	0	1	25	63	87	74	21	6	3	1
21:00	**206**	53.9	47.6	6	0	0	1	2	22	55	71	41	12	2	0	0
22:00	**162**	53.7	46.8	6.9	0	0	1	3	21	58	43	21	9	4	2	0
23:00	**120**	54.8	48.5	6.1	0	0	0	0	8	36	41	22	9	3	1	0
12H,7-19	**8218**	**50.3**	**44.1**	**7**	**0**	**85**	**205**	**338**	**1448**	**3021**	**2208**	**694**	**170**	**43**	**5**	**1**
16H,6-22	**9194**	**50.8**	**44.6**	**7.1**	**0**	**87**	**211**	**348**	**1511**	**3239**	**2537**	**927**	**243**	**69**	**16**	**6**
18H,6-24	**9476**	**50.8**	**44.7**	**7.1**	**0**	**87**	**212**	**351**	**1540**	**3333**	**2621**	**970**	**261**	**76**	**19**	**6**
24H,0-24	**9615**	**51**	**44.9**	**7.2**	**0**	**87**	**212**	**351**	**1545**	**3344**	**2652**	**998**	**297**	**91**	**27**	**11**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Southbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Sun 18-Jul-21																
00:00	**57**	58.1	51.6	6.9	0	0	0	0	2	9	17	17	7	4	0	1
01:00	**24**	60.4	54.1	8	0	0	0	0	3	0	4	5	9	2	1	0
02:00	**16**	57.8	50.1	7.6	0	0	0	1	0	3	6	2	3	1	0	0
03:00	**11**	60.3	54.9	10.3	0	0	0	0	2	0	1	2	4	1	0	1
04:00	**12**	59.5	53.5	8.1	0	0	0	0	0	3	1	4	2	1	1	0
05:00	**27**	67.8	57.5	10.6	0	0	1	0	1	1	2	4	10	2	4	2
06:00	**109**	58.6	51	8.3	0	2	1	0	1	18	31	32	14	9	1	0
07:00	**211**	55	48.5	7.1	0	1	2	3	13	52	69	49	16	4	1	1
08:00	**371**	53.4	47.2	6.6	0	2	6	4	30	97	142	70	18	1	0	1
09:00	**663**	50.4	44.6	6.6	0	10	7	12	111	259	186	68	7	2	0	1
10:00	**859**	50	43.4	7.3	0	12	36	34	162	309	223	72	9	2	0	0
11:00	**954**	48.8	41.8	8.2	0	18	66	85	182	358	182	39	14	4	3	3
12:00	**946**	45.1	33.9	12.4	72	118	105	95	228	228	82	15	1	1	0	1
13:00	**954**	48.6	42.3	7.3	0	30	19	37	231	393	192	47	1	1	2	1
14:00	**928**	48.9	43.1	6.5	1	6	22	50	200	389	205	42	10	0	0	3
15:00	**667**	50.3	43.9	7.5	1	14	19	25	97	248	189	64	7	3	0	0
16:00	**655**	50.1	44.8	5.8	1	4	3	17	96	266	206	56	6	0	0	0
17:00	**559**	51.7	45.7	6.9	0	4	7	22	79	157	197	60	29	4	0	0
18:00	**520**	51.9	46.7	5.9	0	0	3	10	47	175	195	67	13	8	0	2
19:00	**340**	54.3	47.8	6.4	0	0	0	2	27	120	113	40	25	10	2	1
20:00	**282**	55.8	48.7	7.6	0	5	0	1	11	75	98	51	34	5	0	2
21:00	**169**	55.7	48.3	7.5	0	0	0	6	14	53	42	30	15	6	2	1
22:00	**94**	58.5	50.3	8.3	0	0	0	1	12	17	21	21	15	3	2	2
23:00	**34**	60.5	52.8	8.1	0	0	0	1	2	4	4	12	6	4	1	0
12H,7-19	**8287**	**50**	**42.9**	**8.6**	**75**	**219**	**295**	**394**	**1476**	**2931**	**2068**	**649**	**131**	**30**	**6**	**13**
16H,6-22	**9187**	**50.4**	**43.4**	**8.6**	**75**	**226**	**296**	**403**	**1529**	**3197**	**2352**	**802**	**219**	**60**	**11**	**17**
18H,6-24	**9315**	**50.5**	**43.5**	**8.7**	**75**	**226**	**296**	**405**	**1543**	**3218**	**2377**	**835**	**240**	**67**	**14**	**19**
24H,0-24	**9462**	**50.7**	**43.7**	**8.8**	**75**	**226**	**297**	**406**	**1551**	**3234**	**2408**	**869**	**275**	**78**	**20**	**23**

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Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Southbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Mon 19-Jul-21																
00:00	**10**	62.7	55.5	7.3	0	0	0	0	0	1	2	2	2	3	0	0
01:00	**5**	-	50.5	8.4	0	0	0	0	0	2	1	1	0	1	0	0
02:00	**3**	-	51.8	7.6	0	0	0	0	0	1	0	1	1	0	0	0
03:00	**11**	54.1	45.1	11.7	0	1	0	0	2	2	2	3	1	0	0	0
04:00	**13**	62.4	56.6	7.6	0	0	0	0	0	0	4	2	4	2	0	1
05:00	**78**	61.6	54	7.5	0	0	0	1	0	6	22	24	12	7	4	2
06:00	**266**	57.4	50.6	7.1	0	1	0	2	9	50	86	70	28	15	3	2
07:00	**773**	50.7	45.7	5.4	0	2	1	15	98	297	260	85	12	3	0	0
08:00	**922**	49.3	44.1	5.1	0	0	8	17	202	381	267	39	5	2	1	0
09:00	**759**	49.6	44.8	4.8	0	1	3	18	97	343	253	39	5	0	0	0
10:00	**722**	49.2	42.6	7.5	0	20	28	29	135	290	172	44	4	0	0	0
11:00	**762**	48.8	43.5	5	0	1	3	25	187	326	190	24	5	1	0	0
12:00	**718**	49.4	43.8	5.7	0	5	4	25	156	300	176	47	5	0	0	0
13:00	**641**	49.4	43.7	6.5	0	5	25	14	103	286	163	35	7	3	0	0
14:00	**690**	49.4	43.9	5.6	0	0	8	30	153	261	197	33	5	2	0	1
15:00	**793**	49.5	43.6	6.1	0	7	7	46	163	295	222	47	5	1	0	0
16:00	**952**	49.4	44	5.7	0	0	8	59	170	395	260	45	8	3	4	0
17:00	**893**	50.4	44.6	6.6	0	9	18	34	111	353	265	87	14	2	0	0
18:00	**685**	51.9	46	6.6	0	0	28	13	54	218	250	99	23	0	0	0
19:00	**429**	54.1	46.2	8.9	0	1	30	24	35	81	147	74	27	5	5	0
20:00	**277**	56	49.7	6.6	0	0	0	5	14	54	98	64	29	9	4	0
21:00	**201**	55.4	48.9	6.7	0	0	1	0	8	68	59	39	19	2	4	1
22:00	**111**	59.8	51.5	8.9	0	0	0	4	5	24	21	24	21	6	1	5
23:00	**53**	58.1	50.6	7.3	0	0	0	0	7	7	12	13	13	0	1	0
12H,7-19	**9310**	**49.8**	**44.2**	**6**	**0**	**50**	**141**	**325**	**1629**	**3745**	**2675**	**624**	**98**	**17**	**5**	**1**
16H,6-22	**10483**	**50.3**	**44.7**	**6.4**	**0**	**52**	**172**	**356**	**1695**	**3998**	**3065**	**871**	**201**	**48**	**21**	**4**
18H,6-24	**10647**	**50.4**	**44.8**	**6.4**	**0**	**52**	**172**	**360**	**1707**	**4029**	**3098**	**908**	**235**	**54**	**23**	**9**
24H,0-24	**10767**	**50.5**	**44.9**	**6.5**	**0**	**53**	**172**	**361**	**1709**	**4041**	**3129**	**941**	**255**	**67**	**27**	**12**

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Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Southbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Tue 20-Jul-21																
00:00	**20**	58.5	50.3	7.9	0	0	0	0	0	9	3	3	3	1	1	0
01:00	**5**	-	52.5	2.6	0	0	0	0	0	0	1	4	0	0	0	0
02:00	**4**	-	51	6.5	0	0	0	0	0	1	1	1	1	0	0	0
03:00	**12**	57.2	48.5	8.4	0	0	0	1	1	3	2	2	3	0	0	0
04:00	**16**	58.8	50.2	9.9	0	0	1	0	1	1	7	2	2	1	1	0
05:00	**100**	60.8	54.7	6.5	0	0	1	0	2	3	15	39	25	14	1	0
06:00	**296**	55.8	49.2	7.2	0	0	2	4	23	69	84	72	25	14	2	1
07:00	**645**	50.2	44.3	7.6	1	17	22	11	54	248	232	51	9	0	0	0
08:00	**991**	47.3	43	4.7	0	3	6	25	236	527	173	17	3	1	0	0
09:00	**904**	47.8	43.1	4.5	0	0	0	23	253	431	173	17	6	1	0	0
10:00	**833**	47.8	41.9	6.9	0	14	34	54	186	367	145	22	11	0	0	0
11:00	**693**	48.4	42.5	5.9	0	5	14	45	175	271	161	21	1	0	0	0
12:00	**713**	49.1	43.9	5.4	0	1	13	26	115	324	201	27	6	0	0	0
13:00	**760**	48.8	43.3	5.5	0	4	6	20	206	307	182	28	7	0	0	0
14:00	**755**	47.9	42.6	5.5	0	2	20	31	188	344	148	20	2	0	0	0
15:00	**880**	47.2	42.1	5.5	0	1	28	26	287	371	150	11	4	0	2	0
16:00	**926**	46.9	41.9	5.6	0	2	32	56	251	418	147	18	2	0	0	0
17:00	**997**	48.8	43.5	5.1	0	1	2	32	260	418	241	34	6	2	0	1
18:00	**704**	50.5	45.3	6.3	0	1	26	11	66	268	251	65	14	2	0	0
19:00	**429**	54.7	47.8	7	0	4	1	6	26	134	142	69	39	4	3	1
20:00	**276**	55.4	48.6	7.4	0	1	4	5	21	50	108	51	29	4	1	2
21:00	**222**	51.9	46	7.3	0	3	4	2	30	63	81	29	5	5	0	0
22:00	**123**	54.5	47.1	6.5	0	0	0	1	23	31	38	16	13	1	0	0
23:00	**61**	59.8	52	7.6	0	0	0	0	1	16	11	15	11	4	3	0
12H,7-19	**9801**	**48.6**	**43.1**	**5.7**	**1**	**51**	**203**	**360**	**2277**	**4294**	**2204**	**331**	**71**	**6**	**2**	**1**
16H,6-22	**11024**	**49.3**	**43.6**	**6.1**	**1**	**59**	**214**	**377**	**2377**	**4610**	**2619**	**552**	**169**	**33**	**8**	**5**
18H,6-24	**11208**	**49.4**	**43.7**	**6.2**	**1**	**59**	**214**	**378**	**2401**	**4657**	**2668**	**583**	**193**	**38**	**11**	**5**
24H,0-24	**11365**	**49.6**	**43.8**	**6.3**	**1**	**59**	**216**	**379**	**2405**	**4674**	**2697**	**634**	**227**	**54**	**14**	**5**

Data produced by
Auto Surveys Ltd

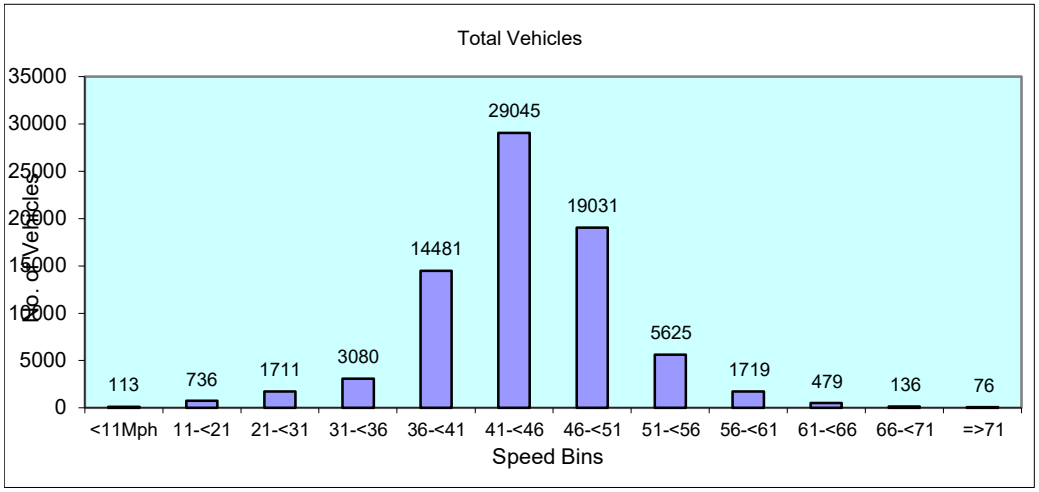
10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Southbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Wed 21-Jul-21																
00:00	**19**	60.1	50.9	8.3	0	0	0	0	0	8	3	3	2	2	1	0
01:00	**5**	-	52.5	2.6	0	0	0	0	0	0	1	4	0	0	0	0
02:00	**6**	-	55.2	8.2	0	0	0	0	0	1	1	1	1	2	0	0
03:00	**16**	58.6	50.1	8.4	0	0	0	1	1	4	2	2	6	0	0	0
04:00	**15**	62.3	51.7	11.3	0	0	1	0	1	1	5	2	2	1	2	0
05:00	**96**	60.4	54.2	6.7	0	0	1	0	3	4	13	39	24	11	1	0
06:00	**288**	55.9	49	7.2	0	0	2	4	25	64	92	59	28	11	2	1
07:00	**663**	50.3	44.4	7.6	1	15	24	16	60	244	238	53	12	0	0	0
08:00	**948**	47.7	43.1	4.9	0	4	5	26	221	491	176	21	2	2	0	0
09:00	**887**	47.7	43.1	4.5	0	0	0	22	250	426	163	21	4	1	0	0
10:00	**798**	47.7	42	6.6	0	13	26	48	182	362	139	17	11	0	0	0
11:00	**710**	48.5	42.7	5.9	0	4	17	41	172	289	159	27	1	0	0	0
12:00	**731**	49	43.7	5.5	0	2	16	24	126	338	193	26	6	0	0	0
13:00	**746**	48.8	43.3	5.5	0	3	8	21	201	304	170	32	7	0	0	0
14:00	**744**	47.9	42.7	5.4	0	2	15	29	192	342	138	23	3	0	0	0
15:00	**891**	47.4	42.1	5.6	0	2	30	26	288	368	157	16	3	0	1	0
16:00	**969**	46.8	41.9	5.6	0	2	30	62	271	433	148	19	4	0	0	0
17:00	**1001**	48.8	43.5	5.2	0	1	2	41	258	416	235	40	5	2	0	1
18:00	**731**	50.5	45.2	6.1	0	1	24	15	64	289	253	71	12	2	0	0
19:00	**419**	54.5	47.8	6.8	0	3	1	5	30	125	139	76	31	6	2	1
20:00	**284**	55.1	48.2	7.7	0	2	4	4	27	57	99	59	24	4	1	3
21:00	**229**	52	45.9	7.4	0	3	4	3	30	70	78	30	6	4	0	1
22:00	**128**	54	47.4	6.2	0	0	0	1	18	34	44	19	10	2	0	0
23:00	**53**	60.6	52.6	7.9	0	0	0	0	1	12	13	8	11	5	3	0
12H,7-19	**9819**	**48.6**	**43.1**	**5.7**	**1**	**49**	**197**	**371**	**2285**	**4302**	**2169**	**366**	**70**	**7**	**1**	**1**
16H,6-22	**11039**	**49.3**	**43.6**	**6.1**	**1**	**57**	**208**	**387**	**2397**	**4618**	**2577**	**590**	**159**	**32**	**6**	**7**
18H,6-24	**11220**	**49.4**	**43.7**	**6.2**	**1**	**57**	**208**	**388**	**2416**	**4664**	**2634**	**617**	**180**	**39**	**9**	**7**
24H,0-24	**11377**	**49.6**	**43.8**	**6.3**	**1**	**57**	**210**	**389**	**2421**	**4682**	**2659**	**668**	**215**	**55**	**13**	**7**

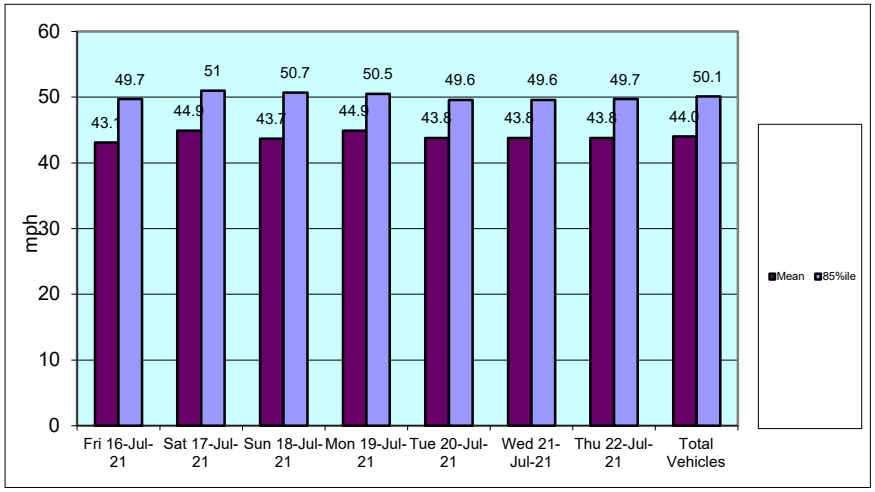
Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638001 Channel: Southbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Thu 22-Jul-21																
00:00	**21**	63.3	53	8.8	0	0	0	0	0	6	4	4	2	3	2	0
01:00	**7**	-	52.8	3.7	0	0	0	0	0	0	2	4	1	0	0	0
02:00	**8**	-	57.3	8	0	0	0	0	0	1	1	1	1	4	0	0
03:00	**13**	56.9	47.7	8.5	0	0	0	1	2	3	2	2	3	0	0	0
04:00	**20**	63.5	52.6	10.4	0	0	1	0	1	1	7	3	2	3	2	0
05:00	**91**	60	53.5	7	0	0	1	0	2	7	17	34	20	8	1	1
06:00	**288**	56.7	49.2	7.3	0	0	2	4	24	66	84	59	36	10	2	1
07:00	**701**	50.2	44.4	7.6	1	14	29	16	67	250	257	51	15	1	0	0
08:00	**931**	47.9	43.1	5	0	4	5	28	218	468	180	23	3	2	0	0
09:00	**853**	48	43.2	4.6	0	0	0	24	229	403	169	23	4	1	0	0
10:00	**813**	47.8	42.1	6.4	0	9	29	52	183	364	151	16	9	0	0	0
11:00	**701**	48.5	42.7	6	0	6	17	35	160	297	159	25	2	0	0	0
12:00	**736**	49.1	43.7	5.6	0	2	15	28	121	343	188	33	6	0	0	0
13:00	**658**	48.9	43.4	5.6	0	3	6	37	125	310	132	40	4	1	0	0
14:00	**803**	48.5	43.1	5.3	0	0	7	48	202	343	165	30	6	2	0	0
15:00	**874**	47.4	42	6.1	2	9	17	45	247	382	145	24	2	0	0	1
16:00	**988**	46.9	41.5	5.4	0	1	13	94	370	334	144	30	1	0	1	0
17:00	**1041**	48.5	42.8	6	0	2	43	59	187	482	227	34	6	1	0	0
18:00	**730**	50.7	45.4	6.1	0	1	20	5	109	233	266	86	7	2	1	0
19:00	**470**	53.2	46	8.3	0	8	21	6	35	145	150	79	18	5	1	2
20:00	**318**	53.7	47.7	6.8	0	1	3	3	23	96	114	56	14	2	3	3
21:00	**226**	55	47.9	7.4	0	0	1	9	30	39	80	41	19	3	3	1
22:00	**131**	58	50.1	7.3	0	0	0	2	9	23	47	23	17	7	3	0
23:00	**67**	60.4	51.4	8.4	0	0	0	3	1	16	13	13	12	8	0	1
12H,7-19	**9829**	**48.8**	**43**	**5.9**	**3**	**51**	**201**	**471**	**2218**	**4209**	**2183**	**415**	**65**	**10**	**2**	**1**
16H,6-22	**11131**	**49.4**	**43.6**	**6.3**	**3**	**60**	**228**	**493**	**2330**	**4555**	**2611**	**650**	**152**	**30**	**11**	**8**
18H,6-24	**11329**	**49.6**	**43.7**	**6.4**	**3**	**60**	**228**	**498**	**2340**	**4594**	**2671**	**686**	**181**	**45**	**14**	**9**
24H,0-24	**11489**	**49.7**	**43.8**	**6.5**	**3**	**60**	**230**	**499**	**2345**	**4612**	**2704**	**734**	**210**	**63**	**19**	**10**

Data produced by
Auto Surveys Ltd

10638	JULY 2021	SHOREHAM BY SEA			Site No: 10638001 Channel: Southbound					Location	Site 1 - A283 Steyning Rd, Shoreham by Sea					
Time Period	**Total Vehicles**	**85%ile Speed**	**Mean Speed**	**Stand Dev.**	**<11Mph**	**11-<21**	**21-<31**	**31-<36**	**36-<41**	**41-<46**	**46-<51**	**51-<56**	**56-<61**	**61-<66**	**66-<71**	**=>71**
Daily Totals																
Fri 16-Jul-21	**12157**	49.7	43.1	7.6	33	194	374	695	2505	4458	2782	781	240	71	16	8
Sat 17-Jul-21	**9615**	51	44.9	7.2	0	87	212	351	1545	3344	2652	998	297	91	27	11
Sun 18-Jul-21	**9462**	50.7	43.7	8.8	75	226	297	406	1551	3234	2408	869	275	78	20	23
Mon 19-Jul-21	**10767**	50.5	44.9	6.5	0	53	172	361	1709	4041	3129	941	255	67	27	12
Tue 20-Jul-21	**11365**	49.6	43.8	6.3	1	59	216	379	2405	4674	2697	634	227	54	14	5
Wed 21-Jul-21	**11377**	49.6	43.8	6.3	1	57	210	389	2421	4682	2659	668	215	55	13	7
Thu 22-Jul-21	**11489**	49.7	43.8	6.5	3	60	230	499	2345	4612	2704	734	210	63	19	10
Total Vehicles																
[--]	**76232**	50.1	44.0	7.0	113	736	1711	3080	14481	29045	19031	5625	1719	479	136	76





Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Northbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Fri 16-Jul-21																
00:00	**49**	64.2	54.2	9	0	0	0	1	0	4	18	10	3	8	2	3
01:00	**16**	66.5	56.5	11.6	0	0	1	0	0	0	3	4	3	2	1	2
02:00	**13**	62.4	55.8	7.9	0	0	0	0	0	0	5	2	3	2	0	1
03:00	**23**	61.1	55.7	6	0	0	0	0	0	1	3	9	6	3	1	0
04:00	**38**	60.7	53.1	8.5	0	0	0	1	3	2	8	11	7	3	3	0
05:00	**109**	63.9	55.9	8.2	0	0	1	0	1	7	14	40	20	16	3	7
06:00	**357**	60.8	53.6	7.1	0	0	1	1	8	48	55	109	85	42	8	0
07:00	**804**	55.5	49.2	6.5	0	0	2	15	62	134	290	198	83	15	5	0
08:00	**855**	54.1	48.6	5.2	0	0	0	2	62	173	355	220	36	7	0	0
09:00	**713**	54.9	46.3	10.6	9	32	18	13	57	124	218	173	59	9	1	0
10:00	**707**	54.3	48.7	5.4	0	0	1	14	28	143	288	194	36	3	0	0
11:00	**898**	53.4	47.9	5.5	0	0	10	2	38	252	379	173	35	8	0	1
12:00	**895**	52.3	46.3	6.6	0	1	29	22	71	248	352	144	26	1	0	1
13:00	**889**	54	48	6.2	0	0	11	20	58	191	352	203	47	6	1	0
14:00	**958**	51.9	45.2	8.2	0	19	53	31	48	275	361	145	24	1	1	0
15:00	**1000**	52.4	46.3	6	0	1	6	31	127	301	339	161	31	2	1	0
16:00	**1207**	50.7	45	6.4	0	2	30	43	182	385	409	131	19	6	0	0
17:00	**1035**	52	44	9.7	5	39	61	58	94	216	378	147	34	3	0	0
18:00	**739**	55.2	48.5	7.9	0	4	31	7	47	103	266	202	64	11	2	2
19:00	**487**	58	52	5.8	0	0	2	0	7	47	152	175	76	27	1	0
20:00	**447**	57.3	51.1	6.2	0	0	0	0	16	66	146	136	58	19	5	1
21:00	**395**	56.6	49.6	7.5	0	0	9	2	22	79	113	105	47	12	6	0
22:00	**262**	57.2	50.9	6.4	0	0	0	4	8	36	91	75	33	13	2	0
23:00	**161**	59.3	51.8	7.2	0	0	0	0	8	26	44	38	31	11	1	2
12H,7-19	**10700**	**53.6**	**46.8**	**7.4**	**14**	**98**	**252**	**258**	**874**	**2545**	**3987**	**2091**	**494**	**72**	**11**	**4**
16H,6-22	**12386**	**54.3**	**47.5**	**7.5**	**14**	**98**	**264**	**261**	**927**	**2785**	**4453**	**2616**	**760**	**172**	**31**	**5**
18H,6-24	**12809**	**54.4**	**47.6**	**7.5**	**14**	**98**	**264**	**265**	**943**	**2847**	**4588**	**2729**	**824**	**196**	**34**	**7**
24H,0-24	**13057**	**54.6**	**47.7**	**7.6**	**14**	**98**	**266**	**267**	**947**	**2861**	**4639**	**2805**	**866**	**230**	**44**	**20**

APPENDIX 7.2
ATC 1: SOUTHERN SITE ACCESS

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Northbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Sat 17-Jul-21																
00:00	**63**	63.5	55.7	7.4	0	0	0	0	0	3	12	25	10	6	4	3
01:00	**30**	62.7	53.3	10.1	0	0	0	2	2	2	6	5	7	3	2	1
02:00	**16**	64.1	58.8	7.1	0	0	0	0	0	1	1	2	6	5	0	1
03:00	**13**	63.8	58.1	9.1	0	0	0	0	0	2	1	1	4	3	1	1
04:00	**27**	66.5	54.8	9.5	0	0	0	0	1	5	4	6	3	3	5	0
05:00	**51**	63.3	55.9	9.1	0	1	0	0	0	3	6	15	16	4	4	2
06:00	**121**	62.8	54.6	8.3	0	1	0	1	2	7	29	29	28	15	7	2
07:00	**288**	59	52	8	0	4	3	0	7	24	78	95	56	15	3	3
08:00	**453**	58.2	51	7.4	0	4	3	2	18	57	136	130	79	23	0	1
09:00	**606**	55	49	6.8	0	2	13	10	18	98	232	177	43	13	0	0
10:00	**826**	53.4	47.5	5.9	0	2	2	15	58	227	322	156	38	3	3	0
11:00	**939**	52.9	46.9	6.1	0	2	11	14	109	229	368	174	27	5	0	0
12:00	**857**	52.7	45.4	8.6	0	10	68	30	56	182	333	141	35	1	0	1
13:00	**755**	54.3	47.9	7.3	0	4	29	5	30	158	294	182	41	12	0	0
14:00	**723**	54.3	49	5.4	0	0	1	0	22	176	308	160	41	12	2	1
15:00	**673**	55.4	49.7	5.9	0	0	4	7	29	100	265	189	72	6	0	1
16:00	**612**	55.8	49.8	6.9	0	1	15	4	14	93	222	177	67	17	2	0
17:00	**693**	55.2	48.9	7.5	0	2	20	18	25	117	226	213	57	11	2	2
18:00	**554**	57.3	51.1	6.2	0	0	0	0	26	78	169	176	84	13	7	1
19:00	**408**	58.9	52.3	6.5	0	0	2	4	1	40	134	120	78	21	7	1
20:00	**458**	55.9	50.7	6.1	0	0	1	0	13	78	157	143	44	16	3	3
21:00	**416**	55.5	49.1	6.3	0	0	0	5	33	85	144	95	48	2	3	1
22:00	**269**	55.3	48.9	6.4	0	0	0	3	24	53	99	57	26	5	1	1
23:00	**192**	58.4	51.8	6.3	0	0	0	0	6	23	60	59	31	11	1	1
12H,7-19	**7979**	**55**	**48.6**	**7**	**0**	**31**	**169**	**105**	**412**	**1539**	**2953**	**1970**	**640**	**131**	**19**	**10**
16H,6-22	**9382**	**55.3**	**48.9**	**7**	**0**	**32**	**172**	**115**	**461**	**1749**	**3417**	**2357**	**838**	**185**	**39**	**17**
18H,6-24	**9843**	**55.4**	**49**	**7**	**0**	**32**	**172**	**118**	**491**	**1825**	**3576**	**2473**	**895**	**201**	**41**	**19**
24H,0-24	**10043**	**55.5**	**49.1**	**7.1**	**0**	**33**	**172**	**120**	**494**	**1841**	**3606**	**2527**	**941**	**225**	**57**	**27**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Northbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Sun 18-Jul-21																
00:00	**79**	60.7	53.9	7.7	0	0	0	1	2	4	24	17	20	7	1	3
01:00	**32**	61.9	54.9	7.2	0	0	0	0	0	2	9	8	7	4	1	1
02:00	**17**	65.9	57.9	9.1	0	0	0	0	1	1	1	3	5	3	2	1
03:00	**9**	-	59.1	9.3	0	0	0	0	0	0	2	2	2	0	2	1
04:00	**16**	61.2	50.8	10.8	0	0	1	0	3	0	2	5	2	3	0	0
05:00	**44**	64.3	54.2	10.1	0	0	0	3	2	4	5	10	9	6	4	1
06:00	**83**	62.9	56	8	0	0	1	0	0	5	11	27	23	8	3	5
07:00	**193**	61.4	53.7	8.9	0	1	2	4	5	14	40	50	46	19	7	5
08:00	**356**	59.4	51.2	9.3	0	7	3	5	11	43	110	83	59	21	5	9
09:00	**528**	55.5	48.2	8.1	0	3	17	8	37	117	156	123	53	9	0	5
10:00	**669**	54	44.7	10.3	0	23	48	39	57	155	174	119	40	11	1	2
11:00	**818**	53	47.1	6.2	0	0	12	9	91	205	319	147	25	6	3	1
12:00	**693**	50.7	44.3	7.4	0	9	26	29	93	240	203	76	16	1	0	0
13:00	**768**	54.5	47.9	7	0	2	12	29	37	182	279	159	53	10	4	1
14:00	**651**	54.2	47.7	6.3	0	0	2	15	72	146	237	126	44	8	1	0
15:00	**618**	54.8	48.6	6.4	0	0	1	13	46	138	206	158	42	10	2	2
16:00	**656**	55.3	50.2	5.3	0	0	0	2	17	101	251	215	58	11	1	0
17:00	**597**	56	50.5	6.7	0	0	10	5	20	74	192	208	74	8	2	4
18:00	**603**	55.7	50.5	5.6	0	0	0	0	16	91	239	176	62	15	2	2
19:00	**535**	55.4	49.8	6.3	0	0	4	4	24	87	192	162	47	11	2	2
20:00	**481**	56.1	50.9	5.8	0	0	2	1	9	71	161	163	58	13	2	1
21:00	**434**	55.3	49.1	6.4	0	0	2	4	31	83	163	100	41	8	0	2
22:00	**206**	58.8	51.3	7.4	0	0	1	1	5	40	64	46	31	12	3	3
23:00	**72**	63.8	54.9	8.5	0	0	0	0	4	6	12	21	11	12	3	3
12H,7-19	**7150**	**55**	**48.2**	**7.6**	**0**	**45**	**133**	**158**	**502**	**1506**	**2406**	**1640**	**572**	**129**	**28**	**31**
16H,6-22	**8683**	**55.2**	**48.6**	**7.4**	**0**	**45**	**142**	**167**	**566**	**1752**	**2933**	**2092**	**741**	**169**	**35**	**41**
18H,6-24	**8961**	**55.4**	**48.7**	**7.5**	**0**	**45**	**143**	**168**	**575**	**1798**	**3009**	**2159**	**783**	**193**	**41**	**47**
24H,0-24	**9158**	**55.5**	**48.8**	**7.6**	**0**	**45**	**144**	**172**	**583**	**1809**	**3052**	**2204**	**828**	**216**	**51**	**54**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Northbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Mon 19-Jul-21																
00:00	**37**	65.9	55.3	9.9	0	0	0	0	2	5	8	5	5	6	4	2
01:00	**18**	60	52.7	8.9	0	0	0	0	1	3	6	1	4	1	2	0
02:00	**11**	55.3	53.5	7.8	0	0	0	0	0	1	3	5	1	0	0	1
03:00	**17**	60.8	51.4	11.1	0	0	0	0	3	3	4	2	2	1	0	2
04:00	**39**	61.5	53.9	8.2	0	0	0	0	2	7	3	10	10	6	0	1
05:00	**123**	62.7	54.8	8.6	0	2	0	0	1	4	31	31	29	18	3	4
06:00	**347**	60.5	53.6	8	0	0	8	4	4	22	76	92	99	32	7	3
07:00	**810**	55.3	49.5	6.1	0	0	5	4	62	118	289	242	77	12	1	0
08:00	**803**	54.7	49.1	5.4	0	0	1	4	36	163	330	201	62	6	0	0
09:00	**687**	55.1	50.1	5.1	0	0	0	0	19	111	258	236	55	6	1	1
10:00	**647**	54.4	47.7	7.3	0	1	22	19	49	98	247	169	37	5	0	0
11:00	**689**	53.7	48.3	5.2	0	0	1	1	30	190	278	155	23	9	2	0
12:00	**668**	55.3	48.3	7.4	0	0	18	29	24	143	204	175	66	8	1	0
13:00	**636**	54.9	48.1	7.9	0	11	10	15	34	117	222	168	49	9	1	0
14:00	**732**	54.5	47.5	7	0	1	9	22	95	144	223	185	45	5	2	1
15:00	**888**	53.6	46.9	7.4	0	15	20	5	56	247	317	182	38	8	0	0
16:00	**986**	53.3	46.5	7.2	0	0	38	38	81	230	370	175	45	9	0	0
17:00	**1016**	54.6	48.9	5.8	0	0	4	14	63	180	406	269	69	11	0	0
18:00	**622**	56.4	51.2	5.7	0	0	0	4	17	80	186	234	86	11	3	1
19:00	**503**	57.6	50.8	7.3	0	1	12	3	7	65	164	154	67	27	2	1
20:00	**495**	56.6	50.3	6.3	0	0	0	0	25	100	147	141	57	23	2	0
21:00	**356**	56.3	50.7	6	0	0	0	0	11	56	131	102	42	10	2	2
22:00	**189**	60.4	52.9	7.2	0	0	0	0	1	34	44	53	32	17	6	2
23:00	**104**	61.6	53.5	8.5	0	0	0	1	3	12	31	20	20	7	6	4
12H,7-19	**9184**	**54.7**	**48.4**	**6.6**	**0**	**28**	**128**	**155**	**566**	**1821**	**3330**	**2391**	**652**	**99**	**11**	**3**
16H,6-22	**10885**	**55.1**	**48.9**	**6.8**	**0**	**29**	**148**	**162**	**613**	**2064**	**3848**	**2880**	**917**	**191**	**24**	**9**
18H,6-24	**11178**	**55.3**	**49**	**6.8**	**0**	**29**	**148**	**163**	**617**	**2110**	**3923**	**2953**	**969**	**215**	**36**	**15**
24H,0-24	**11423**	**55.4**	**49.1**	**6.9**	**0**	**31**	**148**	**163**	**626**	**2133**	**3978**	**3007**	**1020**	**247**	**45**	**25**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Northbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Tue 20-Jul-21																
00:00	**35**	62.6	55.5	7.8	0	0	0	0	1	5	2	8	12	4	3	0
01:00	**18**	62.3	55.2	8	0	0	0	0	0	2	4	4	4	3	0	1
02:00	**19**	65.4	55.6	7.8	0	0	0	0	0	3	1	6	6	0	3	0
03:00	**20**	57.9	49	8.8	0	0	0	1	2	6	3	3	4	0	1	0
04:00	**38**	64.2	55.7	8.6	0	0	0	0	1	4	9	3	9	9	2	1
05:00	**121**	64.8	56.4	8.1	0	0	0	0	1	8	29	21	26	23	7	6
06:00	**393**	59.4	52.8	7.9	0	1	11	5	7	15	82	149	93	23	4	3
07:00	**841**	54.8	49.2	5.8	0	0	4	13	19	170	345	213	60	15	2	0
08:00	**842**	54	48.3	5.7	0	1	5	16	42	165	364	204	41	3	1	0
09:00	**609**	54.7	48.7	6.7	0	2	7	6	49	99	233	162	41	6	2	2
10:00	**601**	54.6	47.9	6.9	0	0	12	22	36	118	239	117	47	9	1	0
11:00	**670**	54.4	48.9	5.4	0	1	0	2	30	152	262	178	38	7	0	0
12:00	**662**	54.7	48.2	7.6	0	4	23	9	33	105	276	150	50	9	1	2
13:00	**634**	55.2	49.1	6.3	0	0	4	18	23	119	238	163	59	8	0	2
14:00	**768**	53.4	46	8.6	2	18	34	10	45	206	274	134	38	7	0	0
15:00	**785**	54.8	49.1	6.1	0	3	3	5	30	157	313	204	56	11	2	1
16:00	**949**	53.9	45.9	8.8	0	20	45	41	72	227	286	198	56	2	2	0
17:00	**1026**	53.9	47	7.7	1	17	13	41	70	208	389	231	50	5	1	0
18:00	**690**	55.6	47.6	9.6	0	2	62	27	34	72	233	169	66	19	5	1
19:00	**539**	55.4	47.3	8.9	0	0	28	39	52	70	139	146	54	8	3	0
20:00	**540**	56.7	50.2	7	0	0	6	6	30	87	152	168	69	16	5	1
21:00	**436**	55.2	49.3	6	0	0	0	7	16	89	173	102	38	9	1	1
22:00	**234**	58.6	50.6	8.4	0	0	5	11	7	19	87	57	24	16	7	1
23:00	**115**	60.7	53.8	8	0	0	0	0	7	13	20	28	31	8	6	2
12H,7-19	**9077**	**54.5**	**47.9**	**7.3**	**3**	**68**	**212**	**210**	**483**	**1798**	**3452**	**2123**	**602**	**101**	**17**	**8**
16H,6-22	**10985**	**54.9**	**48.2**	**7.5**	**3**	**69**	**257**	**267**	**588**	**2059**	**3998**	**2688**	**856**	**157**	**30**	**13**
18H,6-24	**11334**	**55**	**48.3**	**7.5**	**3**	**69**	**262**	**278**	**602**	**2091**	**4105**	**2773**	**911**	**181**	**43**	**16**
24H,0-24	**11585**	**55.2**	**48.5**	**7.6**	**3**	**69**	**262**	**279**	**607**	**2119**	**4153**	**2818**	**972**	**220**	**59**	**24**

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Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Northbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Wed 21-Jul-21																
00:00	**41**	62.4	55.6	7.9	0	0	0	0	2	1	8	10	12	5	1	2
01:00	**21**	66.9	53.7	10.5	0	0	0	0	1	4	6	3	2	1	2	2
02:00	**16**	62.8	57.3	5.8	0	0	0	0	0	0	2	5	5	3	1	0
03:00	**17**	65.8	55.9	9.8	0	0	0	0	0	4	1	3	6	0	1	2
04:00	**29**	61.3	53.2	8	0	0	0	0	0	5	9	6	4	3	1	1
05:00	**108**	62	55.5	8.1	0	1	0	0	3	4	14	36	31	11	4	4
06:00	**367**	59.2	52.3	8	0	2	9	4	6	23	92	119	88	17	4	3
07:00	**891**	54.7	47.9	7.2	0	5	14	30	61	190	278	242	60	8	3	0
08:00	**947**	54	48.6	5.2	0	0	0	5	48	205	408	231	39	9	2	0
09:00	**731**	53.8	48.2	5.6	0	1	6	7	39	159	313	173	31	1	1	0
10:00	**661**	53.5	48	5.3	0	0	1	5	34	190	267	127	33	4	0	0
11:00	**688**	53.9	47.3	7.5	0	11	8	4	73	150	250	152	28	6	4	2
12:00	**677**	54.4	48.1	6.4	0	0	9	16	50	131	267	149	49	6	0	0
13:00	**674**	55	49.1	5.8	0	0	0	7	33	155	235	179	55	7	3	0
14:00	**757**	54.2	44.2	11.1	2	48	40	43	81	131	208	142	55	6	1	0
15:00	**902**	54.2	47.9	6.5	0	1	14	21	72	165	360	209	56	3	1	0
16:00	**1027**	53.8	47.8	6.3	0	0	22	19	47	238	427	211	58	4	1	0
17:00	**1088**	53.8	47.4	6.5	0	0	20	41	62	258	410	241	46	7	3	0
18:00	**779**	54.9	48.3	7.8	0	5	20	25	37	134	297	186	49	17	4	5
19:00	**538**	57.1	50.7	7.2	0	1	5	8	17	82	157	172	65	21	8	2
20:00	**549**	55.7	49.9	6.5	0	0	3	7	28	97	172	171	54	12	4	1
21:00	**409**	54.8	48.6	6.4	0	1	1	1	37	89	140	103	31	2	2	2
22:00	**255**	57	50.4	7.6	0	4	0	0	10	37	85	73	37	6	0	3
23:00	**91**	61.9	54.7	7	0	0	0	0	0	10	16	31	18	10	5	1
12H,7-19	**9822**	**54.2**	**47.7**	**7**	**2**	**71**	**154**	**223**	**637**	**2106**	**3720**	**2242**	**559**	**78**	**23**	**7**
16H,6-22	**11685**	**54.6**	**48.1**	**7.1**	**2**	**75**	**172**	**243**	**725**	**2397**	**4281**	**2807**	**797**	**130**	**41**	**15**
18H,6-24	**12031**	**54.7**	**48.2**	**7.1**	**2**	**79**	**172**	**243**	**735**	**2444**	**4382**	**2911**	**852**	**146**	**46**	**19**
24H,0-24	**12263**	**54.9**	**48.4**	**7.2**	**2**	**80**	**172**	**243**	**741**	**2462**	**4422**	**2974**	**912**	**169**	**56**	**30**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Northbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Thu 22-Jul-21																
00:00	**48**	61.4	54.5	7.6	0	0	0	0	1	6	6	17	10	4	3	1
01:00	**15**	62.6	55.8	7.2	0	0	0	0	1	0	2	4	4	4	0	0
02:00	**16**	61.5	55.7	8	0	0	0	0	0	2	1	7	3	1	1	1
03:00	**22**	59.7	54.2	7.1	0	0	0	0	0	3	4	6	7	0	2	0
04:00	**42**	60.3	53.2	7.8	0	0	1	0	0	4	9	16	6	5	0	1
05:00	**121**	64.2	55.5	9.3	0	0	2	2	2	7	19	34	26	16	4	9
06:00	**363**	60.2	53.3	7.8	0	0	7	4	9	27	59	138	76	30	11	2
07:00	**874**	54.1	47.1	7.9	0	8	35	28	61	148	343	190	51	9	1	0
08:00	**829**	54.9	48.2	7.6	0	7	24	13	33	171	300	200	69	10	0	2
09:00	**696**	54.6	48.4	6.6	0	1	15	3	35	159	249	178	45	9	2	0
10:00	**735**	53.6	46.2	8.8	5	18	12	36	56	146	275	146	31	9	1	0
11:00	**745**	53	48.1	5	0	1	0	7	30	179	365	130	29	3	1	0
12:00	**730**	54.4	48.3	6	0	0	0	10	61	174	270	153	49	13	0	0
13:00	**665**	54.8	49.3	5.6	0	0	0	10	46	80	284	190	48	7	0	0
14:00	**737**	53.7	47.3	6.2	0	0	9	17	60	201	253	157	37	3	0	0
15:00	**853**	53.9	48.5	5.6	0	0	1	8	39	210	356	188	41	4	1	5
16:00	**1075**	53.3	45.9	7.8	0	10	30	51	95	349	303	163	55	16	2	1
17:00	**1076**	52.9	46.9	6.2	0	0	3	48	115	253	425	181	39	10	1	1
18:00	**803**	55.1	48.6	6.7	0	0	2	38	62	125	295	195	73	12	1	0
19:00	**579**	56	50.5	6.5	0	1	8	1	20	72	199	191	70	14	2	1
20:00	**494**	57	50.8	6.5	0	0	2	5	18	77	141	162	70	14	3	2
21:00	**311**	58.6	51.7	6.6	0	0	0	0	7	50	98	80	55	14	4	3
22:00	**201**	59.2	51.4	6.8	0	0	0	0	1	41	74	34	32	14	4	1
23:00	**86**	61.3	54.1	7.4	0	0	0	0	2	13	10	27	20	9	5	0
12H,7-19	**9818**	**54.1**	**47.6**	**6.9**	**5**	**45**	**131**	**269**	**693**	**2195**	**3718**	**2071**	**567**	**105**	**10**	**9**
16H,6-22	**11565**	**54.7**	**48.2**	**7**	**5**	**46**	**148**	**279**	**747**	**2421**	**4215**	**2642**	**838**	**177**	**30**	**17**
18H,6-24	**11852**	**54.8**	**48.3**	**7**	**5**	**46**	**148**	**279**	**750**	**2475**	**4299**	**2703**	**890**	**200**	**39**	**18**
24H,0-24	**12116**	**55**	**48.4**	**7.1**	**5**	**46**	**151**	**281**	**754**	**2497**	**4340**	**2787**	**946**	**230**	**49**	**30**

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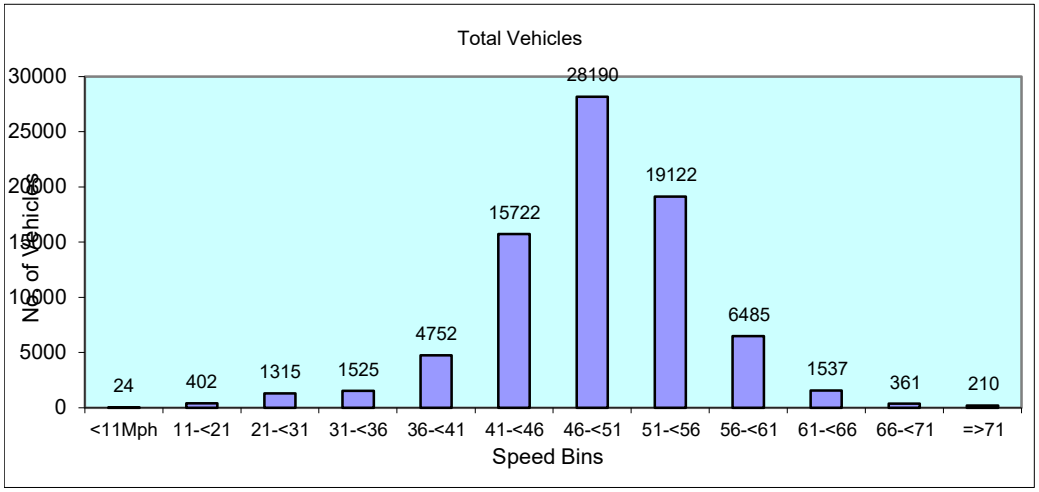
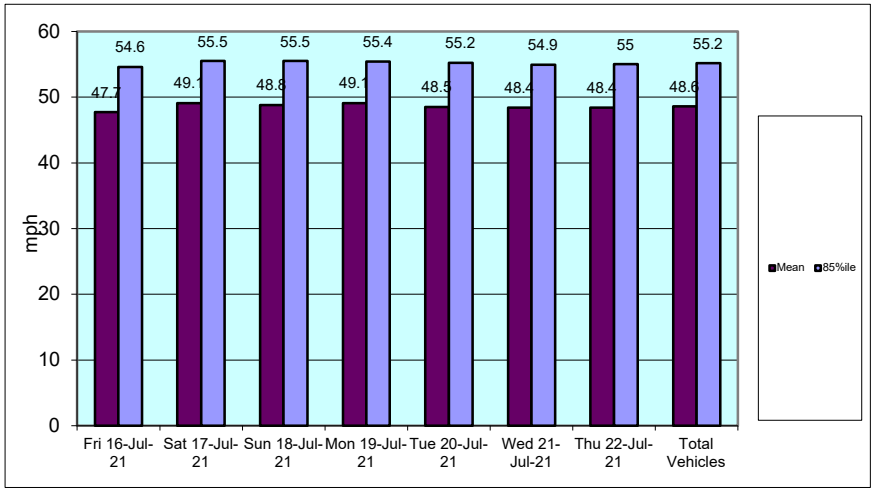
Auto Surveys Ltd

10638	JULY 2021	SHOREHAM BY SEA			Site No: 10638002 Channel: Northbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	**Total Vehicles**	**85%ile Speed**	**Mean Speed**	**Stand Dev.**	**<11Mph**	**11-<21**	**21-<31**	**31-<36**	**36-<41**	**41-<46**	**46-<51**	**51-<56**	**56-<61**	**61-<66**	**66-<71**	**=>71**
Daily Totals																
Fri 16-Jul-21	**13057**	54.6	47.7	7.6	14	98	266	267	947	2861	4639	2805	866	230	44	20
Sat 17-Jul-21	**10043**	55.5	49.1	7.1	0	33	172	120	494	1841	3606	2527	941	225	57	27
Sun 18-Jul-21	**9158**	55.5	48.8	7.6	0	45	144	172	583	1809	3052	2204	828	216	51	54
Mon 19-Jul-21	**11423**	55.4	49.1	6.9	0	31	148	163	626	2133	3978	3007	1020	247	45	25
Tue 20-Jul-21	**11585**	55.2	48.5	7.6	3	69	262	279	607	2119	4153	2818	972	220	59	24
Wed 21-Jul-21	**12263**	54.9	48.4	7.2	2	80	172	243	741	2462	4422	2974	912	169	56	30
Thu 22-Jul-21	**12116**	55	48.4	7.1	5	46	151	281	754	2497	4340	2787	946	230	49	30
Total Vehicles																
[--]	**79645**	55.2	48.6	7.3	24	402	1315	1525	4752	15722	28190	19122	6485	1537	361	210





Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Southbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Fri 16-Jul-21																
00:00	**24**	64.6	56.8	9.2	0	0	0	0	1	1	4	6	5	4	0	3
01:00	**10**	55.2	51.5	5.5	0	0	0	0	1	0	2	6	1	0	0	0
02:00	**9**	-	53.5	8.7	0	0	0	0	1	1	1	2	2	2	0	0
03:00	**5**	-	52.5	9.6	0	0	0	0	1	0	1	1	1	1	0	0
04:00	**13**	58.8	49.7	14.2	0	1	1	0	0	0	3	5	1	1	1	0
05:00	**66**	63.9	55.1	9.6	0	0	3	0	0	5	7	20	16	8	5	2
06:00	**252**	61.3	53.2	8.9	0	2	5	1	10	18	50	74	52	28	10	2
07:00	**692**	55.2	48.9	6.5	0	0	3	23	46	120	235	192	67	5	0	1
08:00	**865**	53.9	47.6	6.2	0	0	7	35	62	181	338	195	42	5	0	0
09:00	**722**	53.8	47.9	6.2	1	1	4	10	60	153	301	149	35	6	1	1
10:00	**776**	53.5	47.5	6.3	0	0	15	19	39	198	318	139	39	9	0	0
11:00	**744**	51.7	46.2	6.4	0	0	19	23	61	236	279	95	26	3	2	0
12:00	**827**	51.7	45.6	7	0	1	34	25	84	253	291	108	25	4	2	0
13:00	**860**	52.3	46	6.5	0	0	15	37	101	242	300	135	25	5	0	0
14:00	**989**	51.2	43.1	10	0	50	88	37	83	247	331	138	14	1	0	0
15:00	**1102**	50.6	42.4	9.4	1	27	120	81	117	312	305	114	23	1	0	1
16:00	**1055**	50.9	39.2	12.5	1	132	153	63	103	191	259	133	18	2	0	0
17:00	**1064**	51.6	44	9.5	1	27	105	54	49	246	403	155	16	7	1	0
18:00	**842**	54.4	46.8	9.2	0	30	35	10	39	163	294	215	45	11	0	0
19:00	**443**	57.2	50.7	7.1	0	0	7	4	20	52	139	141	54	20	5	1
20:00	**320**	56.9	50.6	6.8	0	1	1	3	12	46	112	89	41	11	1	3
21:00	**223**	55.3	50.1	5.9	0	0	0	3	5	44	72	75	14	10	0	0
22:00	**149**	59.3	50.9	7.7	0	0	0	0	13	25	43	36	14	13	4	1
23:00	**85**	57.8	51.5	7.2	0	0	0	0	1	19	23	24	13	1	1	3
12H,7-19	**10538**	**52.8**	**45.1**	**8.9**	**4**	**268**	**598**	**417**	**844**	**2542**	**3654**	**1768**	**375**	**59**	**6**	**3**
16H,6-22	**11776**	**53.5**	**45.7**	**9**	**4**	**271**	**611**	**428**	**891**	**2702**	**4027**	**2147**	**536**	**128**	**22**	**9**
18H,6-24	**12010**	**53.6**	**45.8**	**9**	**4**	**271**	**611**	**428**	**905**	**2746**	**4093**	**2207**	**563**	**142**	**27**	**13**
24H,0-24	**12137**	**53.7**	**45.9**	**9**	**4**	**272**	**615**	**428**	**909**	**2753**	**4111**	**2247**	**589**	**158**	**33**	**18**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Southbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Sat 17-Jul-21																
00:00	**41**	60.8	54.6	8.5	0	0	0	0	2	5	6	9	13	2	2	2
01:00	**15**	64.3	57.5	8.2	0	0	0	0	0	1	3	2	3	5	0	1
02:00	**15**	63.1	55.2	8.1	0	0	0	0	0	3	1	4	3	3	1	0
03:00	**10**	66	55	9.8	0	0	0	0	1	0	3	2	1	1	2	0
04:00	**20**	63.5	54.5	8.2	0	0	0	0	0	4	4	3	2	7	0	0
05:00	**42**	69.7	61.2	7.6	0	0	0	0	0	1	2	6	14	7	7	5
06:00	**118**	64.5	56.7	8.2	0	1	0	0	2	2	20	27	36	17	9	4
07:00	**282**	60	53.4	7.1	0	1	1	0	8	22	54	112	52	22	9	1
08:00	**491**	57	50.7	7.4	0	1	15	7	13	29	174	164	66	22	0	0
09:00	**712**	55.1	49.2	6.3	0	1	6	11	31	137	248	207	61	6	4	0
10:00	**800**	53.4	46.8	7.3	0	7	33	0	53	211	294	171	21	9	1	0
11:00	**841**	51.6	43.5	9.4	3	11	96	28	101	198	264	113	24	3	0	0
12:00	**1002**	50.8	44.1	8.1	0	14	52	57	158	261	321	105	27	6	0	1
13:00	**851**	53.4	46.8	6.6	0	1	12	34	81	223	297	156	40	6	1	0
14:00	**766**	54.3	48.8	5.9	0	4	9	5	11	153	340	196	43	5	0	0
15:00	**716**	54.5	47.9	6.7	0	0	15	6	64	166	234	178	47	3	2	1
16:00	**639**	54.4	48.2	6.3	0	2	1	17	51	115	259	145	42	7	0	0
17:00	**645**	54.4	48.5	6.4	0	0	8	15	39	114	261	164	34	7	1	2
18:00	**514**	55.6	49.5	7.6	0	1	17	10	15	65	182	159	46	14	3	2
19:00	**365**	57.6	51.5	6.8	0	0	3	8	1	42	115	127	44	21	1	3
20:00	**285**	58.4	51.9	6.7	0	1	1	0	2	42	80	92	50	11	4	2
21:00	**209**	58.2	51	7.1	0	1	1	0	10	29	64	57	35	10	2	0
22:00	**161**	56.1	48.6	7.9	0	0	1	4	17	39	50	25	14	6	4	1
23:00	**120**	55.8	50.5	6.6	0	0	0	0	6	18	46	33	9	6	0	2
12H,7-19	**8259**	**54.4**	**47.5**	**7.6**	**3**	**43**	**265**	**190**	**625**	**1694**	**2928**	**1870**	**503**	**110**	**21**	**7**
16H,6-22	**9236**	**54.9**	**48**	**7.7**	**3**	**46**	**270**	**198**	**640**	**1809**	**3207**	**2173**	**668**	**169**	**37**	**16**
18H,6-24	**9517**	**54.9**	**48**	**7.7**	**3**	**46**	**271**	**202**	**663**	**1866**	**3303**	**2231**	**691**	**181**	**41**	**19**
24H,0-24	**9660**	**55**	**48.1**	**7.8**	**3**	**46**	**271**	**202**	**666**	**1880**	**3322**	**2257**	**727**	**206**	**53**	**27**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Southbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Sun 18-Jul-21																
00:00	**60**	60.4	54.7	7.6	0	0	0	0	0	8	11	16	16	4	3	2
01:00	**25**	63.2	56.3	7.1	0	0	0	0	0	2	4	5	8	4	2	0
02:00	**18**	59.5	50.9	10.3	0	0	1	0	2	2	3	4	4	1	1	0
03:00	**11**	65.3	56.2	10.6	0	0	0	0	1	1	1	3	1	2	1	1
04:00	**12**	64.5	56.8	9.2	0	0	0	0	0	2	1	2	4	1	1	1
05:00	**27**	70.3	60.4	9.1	0	0	0	0	1	1	1	4	9	3	4	4
06:00	**111**	62.5	54.5	8.7	0	2	0	1	1	8	14	40	23	16	5	1
07:00	**209**	57.9	51	7.3	0	0	3	3	9	35	34	78	39	6	2	0
08:00	**375**	56.4	51.1	6.6	0	0	8	4	2	34	127	139	49	9	1	2
09:00	**663**	54	46.6	8	0	1	27	36	69	123	220	144	30	9	3	1
10:00	**864**	53.1	45.1	8.6	0	4	63	69	65	178	291	154	31	8	1	0
11:00	**964**	51	42.1	10.4	0	12	203	26	70	202	306	123	17	2	0	3
12:00	**1017**	46.5	30.3	14.8	114	252	165	29	83	209	127	28	7	1	1	1
13:00	**947**	52.1	45.9	6.6	0	3	13	46	110	272	328	144	25	4	1	1
14:00	**901**	52.2	44.8	8.9	0	18	70	34	66	200	347	130	30	6	0	0
15:00	**668**	54	47.5	6.8	0	2	7	19	67	148	242	135	40	4	3	1
16:00	**659**	53.9	47.9	6	0	4	2	2	41	180	241	153	32	4	0	0
17:00	**554**	55.4	49.1	7.2	0	2	8	7	51	79	174	168	52	11	2	0
18:00	**529**	55.5	50.4	5.7	0	0	0	1	19	74	212	160	43	16	2	2
19:00	**358**	55.8	49.2	7.3	0	0	9	1	18	76	119	85	32	15	3	0
20:00	**290**	59.3	52.3	7.6	0	1	5	1	2	26	89	86	54	18	5	3
21:00	**163**	60	51.1	8.8	0	0	6	1	7	14	64	25	26	14	5	1
22:00	**100**	59.5	50.7	8.8	0	0	0	1	18	10	20	27	12	8	2	2
23:00	**34**	62.7	54.8	8.3	0	0	0	1	1	3	3	11	7	7	0	1
12H,7-19	**8350**	**53.6**	**44.6**	**10.7**	**114**	**298**	**569**	**276**	**652**	**1734**	**2649**	**1556**	**395**	**80**	**16**	**11**
16H,6-22	**9272**	**54.1**	**45.2**	**10.6**	**114**	**301**	**589**	**280**	**680**	**1858**	**2935**	**1792**	**530**	**143**	**34**	**16**
18H,6-24	**9406**	**54.2**	**45.3**	**10.6**	**114**	**301**	**589**	**282**	**699**	**1871**	**2958**	**1830**	**549**	**158**	**36**	**19**
24H,0-24	**9559**	**54.4**	**45.5**	**10.7**	**114**	**301**	**590**	**282**	**703**	**1887**	**2979**	**1864**	**591**	**173**	**48**	**27**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Southbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Mon 19-Jul-21																
00:00	**10**	66	59.5	8.5	0	0	0	0	0	1	0	2	3	2	1	1
01:00	**6**	-	48.9	14.4	0	0	1	0	0	1	2	0	1	0	1	0
02:00	**3**	-	56.8	5.9	0	0	0	0	0	0	0	2	0	1	0	0
03:00	**11**	55.3	48.3	10.6	0	0	1	0	2	0	3	3	1	1	0	0
04:00	**17**	63.4	52.5	11.8	0	0	1	0	2	0	5	3	2	2	1	1
05:00	**84**	62.6	53.5	9.5	0	0	5	0	0	4	21	18	18	15	3	0
06:00	**250**	60.1	54.3	6.5	0	0	1	1	1	14	52	91	64	15	8	3
07:00	**794**	54.9	48.6	6.3	0	0	2	21	68	143	287	196	70	5	2	0
08:00	**927**	53.4	46.9	6.5	0	0	23	19	84	240	323	205	30	2	1	0
09:00	**758**	53.8	48.4	5.2	0	0	1	9	32	174	335	165	37	5	0	0
10:00	**726**	52.4	45.5	7.6	0	6	42	11	72	189	259	132	14	1	0	0
11:00	**757**	51	46.1	6.2	0	0	18	18	70	228	310	94	16	1	0	2
12:00	**701**	52.9	47.3	5.5	0	0	1	10	71	173	296	118	28	4	0	0
13:00	**652**	53.5	47.5	6.4	0	0	18	5	24	189	255	125	29	4	2	1
14:00	**698**	53.1	46.8	6.4	0	0	15	13	65	196	243	142	18	6	0	0
15:00	**791**	53.1	47.1	6	0	0	9	16	76	195	313	153	25	4	0	0
16:00	**964**	53.6	48.1	5.2	0	0	1	8	41	266	394	208	39	5	2	0
17:00	**924**	54.4	48.1	7	0	0	31	27	35	149	387	226	62	6	1	0
18:00	**740**	55.7	49.7	6.1	0	0	0	5	36	167	227	205	82	15	3	0
19:00	**381**	59.3	52.7	6.4	0	0	0	4	13	29	91	130	86	24	4	0
20:00	**291**	58.1	51.9	6.5	0	0	2	5	5	21	91	104	44	15	4	0
21:00	**147**	57.9	51.2	6.6	0	0	0	4	4	16	48	43	25	6	1	0
22:00	**97**	61.8	53.3	8.3	0	0	0	2	6	7	25	19	21	12	4	1
23:00	**46**	60.5	53.5	7.4	0	0	0	0	1	6	10	14	8	4	3	0
12H,7-19	**9432**	**53.7**	**47.5**	**6.3**	**0**	**6**	**161**	**162**	**674**	**2309**	**3629**	**1969**	**450**	**58**	**11**	**3**
16H,6-22	**10501**	**54.4**	**48.1**	**6.5**	**0**	**6**	**164**	**176**	**697**	**2389**	**3911**	**2337**	**669**	**118**	**28**	**6**
18H,6-24	**10644**	**54.5**	**48.1**	**6.6**	**0**	**6**	**164**	**178**	**704**	**2402**	**3946**	**2370**	**698**	**134**	**35**	**7**
24H,0-24	**10775**	**54.6**	**48.2**	**6.6**	**0**	**6**	**172**	**178**	**708**	**2408**	**3977**	**2398**	**723**	**155**	**41**	**9**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Southbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Tue 20-Jul-21																
00:00	**20**	62.9	54	7.9	0	0	0	0	0	4	3	6	2	4	1	0
01:00	**15**	59.1	54.2	9.1	0	0	0	0	0	2	4	5	2	0	0	2
02:00	**6**	-	59.3	9.2	0	0	0	0	0	0	1	2	0	2	0	1
03:00	**16**	61.5	51.8	12.2	0	0	1	0	2	2	2	3	3	1	1	1
04:00	**14**	63.3	55.5	10.4	0	0	1	0	0	0	2	3	4	3	1	0
05:00	**78**	63.9	53.8	10.9	0	0	5	1	1	9	9	15	16	17	4	1
06:00	**268**	59.2	53.1	6.5	0	0	1	1	10	21	47	105	66	13	3	1
07:00	**766**	55.2	48.7	7.9	0	1	41	14	35	97	232	272	66	8	0	0
08:00	**962**	53.7	48.1	5.6	1	0	2	19	57	205	415	218	43	2	0	0
09:00	**718**	54.5	48.7	5.8	0	0	3	4	44	156	287	167	49	5	2	1
10:00	**769**	52.9	46.3	7.3	0	0	39	35	38	184	306	134	30	2	1	0
11:00	**716**	54.2	48	6.1	0	0	11	5	34	208	242	169	41	6	0	0
12:00	**654**	54.7	49	5.5	0	0	1	1	29	154	243	174	46	4	0	2
13:00	**684**	54.3	49	5.1	0	0	0	1	26	146	301	163	40	5	2	0
14:00	**720**	53.3	47.7	5.4	0	0	1	9	48	202	284	145	27	4	0	0
15:00	**783**	53.6	47.5	6.2	0	0	7	34	45	186	313	153	39	5	1	0
16:00	**1013**	52.4	46.6	6.1	0	0	27	4	79	339	366	164	30	3	1	0
17:00	**956**	53.4	44.6	8.8	0	1	77	96	106	181	261	188	45	1	0	0
18:00	**686**	54.9	47.4	9.1	0	14	36	15	39	113	210	198	52	7	0	2
19:00	**422**	56.9	49.1	7.9	0	0	7	20	38	56	120	106	59	15	0	1
20:00	**259**	59.5	52.8	7.3	0	0	1	3	10	18	64	91	47	15	5	5
21:00	**225**	58.4	52.4	6.2	0	0	0	0	2	23	72	77	35	10	3	3
22:00	**111**	60.4	52.9	7.5	0	0	0	1	2	19	21	34	19	10	4	1
23:00	**44**	59.1	52.3	7.9	0	0	1	0	1	5	10	15	8	3	0	1
12H,7-19	**9427**	**54**	**47.5**	**6.8**	**1**	**16**	**245**	**237**	**580**	**2171**	**3460**	**2145**	**508**	**52**	**7**	**5**
16H,6-22	**10601**	**54.5**	**47.9**	**7**	**1**	**16**	**254**	**261**	**640**	**2289**	**3763**	**2524**	**715**	**105**	**18**	**15**
18H,6-24	**10756**	**54.6**	**48**	**7.1**	**1**	**16**	**255**	**262**	**643**	**2313**	**3794**	**2573**	**742**	**118**	**22**	**17**
24H,0-24	**10905**	**54.7**	**48.1**	**7.1**	**1**	**16**	**262**	**263**	**646**	**2330**	**3815**	**2607**	**769**	**145**	**29**	**22**

Data produced by
Auto Surveys Ltd

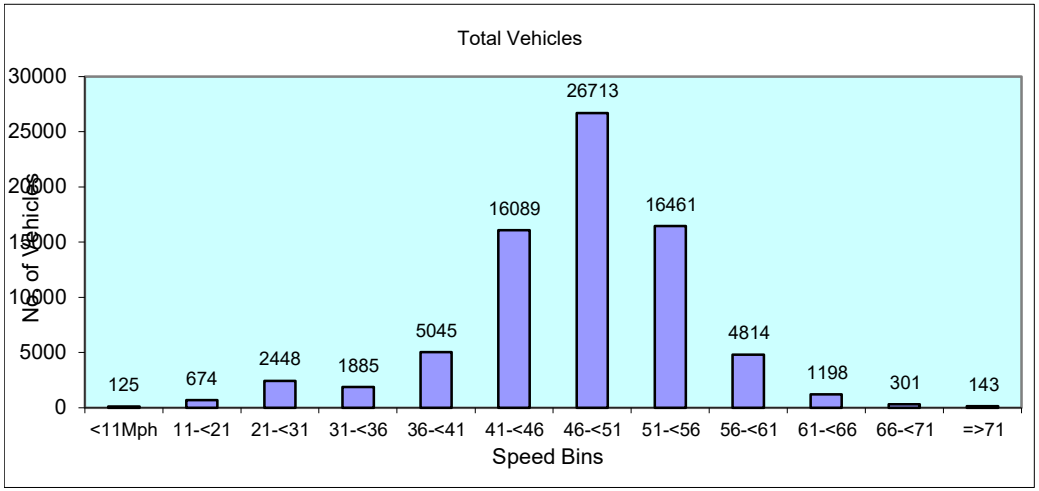
10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Southbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Wed 21-Jul-21																
00:00	**20**	54.8	51.3	6.1	0	0	0	0	1	3	4	9	2	1	0	0
01:00	**3**	-	55.2	5.9	0	0	0	0	0	0	1	0	2	0	0	0
02:00	**11**	65.3	58.5	8.7	0	0	0	0	0	0	3	2	1	3	1	1
03:00	**12**	64.5	52	14	0	0	1	1	1	0	2	1	4	0	1	1
04:00	**19**	64.3	54	12.8	0	0	2	0	0	0	6	1	6	1	1	2
05:00	**76**	63	55.6	9	0	0	3	1	0	0	14	15	26	13	2	2
06:00	**295**	60.5	53.5	7.2	0	0	2	0	4	34	67	80	71	27	8	2
07:00	**771**	54.8	46.8	9.1	0	4	46	67	39	109	226	214	54	9	2	1
08:00	**921**	53.7	47.8	5.8	0	0	7	23	67	189	382	211	41	1	0	0
09:00	**807**	53.3	47.5	5.9	0	0	6	11	67	211	319	153	31	8	0	1
10:00	**748**	52.3	45.6	7.8	0	12	26	15	96	173	280	126	11	9	0	0
11:00	**729**	52.5	46.4	7.7	0	13	29	6	37	182	319	114	25	2	2	0
12:00	**696**	53.3	47.4	6.2	0	0	18	7	39	180	282	139	28	3	0	0
13:00	**756**	53.4	48.2	5.1	0	0	0	5	34	192	337	155	26	5	1	1
14:00	**728**	53.2	46.9	7	3	0	25	10	39	189	289	143	26	4	0	0
15:00	**871**	53.6	47.3	6.7	0	0	28	11	63	208	339	174	44	3	0	1
16:00	**992**	53.3	47	7.2	0	0	48	23	47	215	416	206	27	6	2	2
17:00	**1011**	53.7	47.5	6.1	0	0	8	35	65	253	378	222	42	7	1	0
18:00	**741**	54.9	48.7	7.3	0	0	36	9	7	118	291	216	53	8	3	0
19:00	**422**	59	52.1	6.6	0	0	1	2	7	56	123	128	69	29	6	1
20:00	**288**	58.8	52.2	6.8	0	0	1	2	4	38	79	91	52	14	4	3
21:00	**230**	55.8	50.7	6.2	0	0	0	2	6	34	86	70	19	7	6	0
22:00	**132**	58.4	51.5	6.4	0	0	0	0	2	25	39	36	20	8	2	0
23:00	**53**	65.6	56.4	8.3	0	0	0	0	0	5	11	10	12	7	6	2
12H,7-19	**9771**	**53.6**	**47.3**	**6.9**	**3**	**29**	**277**	**222**	**600**	**2219**	**3858**	**2073**	**408**	**65**	**11**	**6**
16H,6-22	**11006**	**54.3**	**47.8**	**7**	**3**	**29**	**281**	**228**	**621**	**2381**	**4213**	**2442**	**619**	**142**	**35**	**12**
18H,6-24	**11191**	**54.4**	**47.9**	**7.1**	**3**	**29**	**281**	**228**	**623**	**2411**	**4263**	**2488**	**651**	**157**	**43**	**14**
24H,0-24	**11332**	**54.5**	**48**	**7.2**	**3**	**29**	**287**	**230**	**625**	**2414**	**4293**	**2516**	**692**	**175**	**48**	**20**

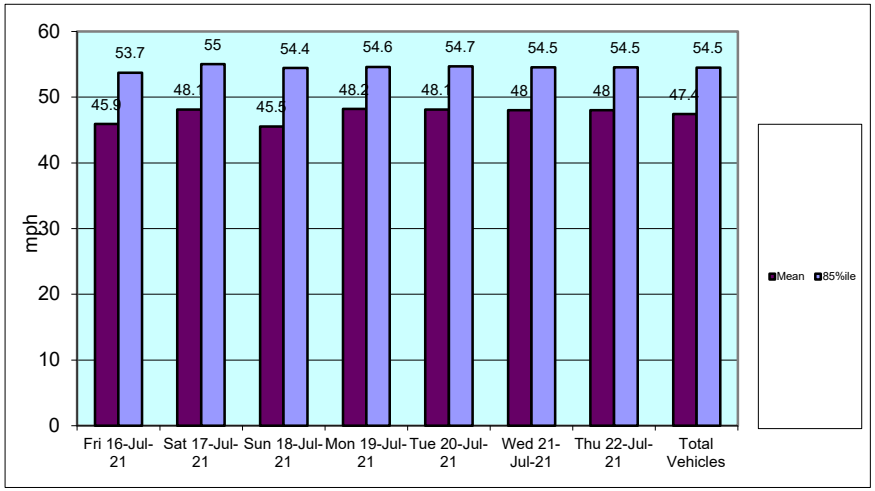
Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Southbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	=>71
Thu 22-Jul-21																
00:00	**21**	67.7	56.8	8.8	0	0	0	0	0	2	3	7	3	1	4	1
01:00	**7**	-	57.8	2.4	0	0	0	0	0	0	0	1	6	0	0	0
02:00	**8**	-	61	8.6	0	0	0	0	0	0	2	0	1	2	3	0
03:00	**12**	58.8	52.7	9.1	0	0	0	0	1	1	4	2	3	0	0	1
04:00	**21**	66.9	54.9	12.9	0	0	2	0	0	1	4	4	3	3	2	2
05:00	**95**	63	55.5	8.2	0	0	3	0	1	2	15	23	30	16	5	0
06:00	**264**	60.6	54.2	7.4	0	1	1	0	8	11	59	79	70	21	11	3
07:00	**723**	54.9	48.7	6.8	0	0	10	36	40	92	257	229	50	9	0	0
08:00	**938**	53.2	47.1	6.4	0	0	25	28	60	197	401	199	27	1	0	0
09:00	**853**	53.4	47.6	5.5	0	0	0	10	77	228	323	181	29	4	1	0
10:00	**826**	51.6	45.3	7.2	0	0	45	30	86	224	303	116	17	5	0	0
11:00	**690**	52.9	46.4	7	0	0	31	15	56	170	264	130	21	3	0	0
12:00	**726**	53.7	47.8	6.2	0	0	10	9	63	148	308	148	28	10	2	0
13:00	**645**	53.1	47.4	5.7	0	0	5	12	53	153	271	126	22	2	1	0
14:00	**794**	53.8	47.6	5.9	0	0	0	19	68	218	268	178	34	8	0	1
15:00	**916**	52.9	46.6	7.1	0	2	40	28	41	233	370	165	34	1	2	0
16:00	**1013**	52.8	46.5	6.3	0	0	11	37	109	290	349	182	26	6	3	0
17:00	**1046**	53.2	47	6.9	0	0	33	46	70	186	458	214	32	4	2	1
18:00	**742**	56	50.1	6.5	0	0	9	9	20	137	222	233	95	15	1	1
19:00	**453**	56.7	50.2	7.8	0	1	19	0	17	41	153	145	62	13	0	2
20:00	**313**	57.7	50.5	8	0	0	7	10	12	38	88	96	43	15	1	3
21:00	**226**	59.6	52.2	8	0	0	0	10	5	30	46	67	47	12	6	3
22:00	**132**	62.2	54.1	6.9	0	0	0	0	1	12	36	34	23	24	1	1
23:00	**64**	63.7	55.5	8.5	0	0	0	3	0	3	12	13	17	11	4	1
12H,7-19	**9912**	**53.6**	**47.3**	**6.6**	**0**	**2**	**219**	**279**	**743**	**2276**	**3794**	**2101**	**415**	**68**	**12**	**3**
16H,6-22	**11168**	**54.3**	**47.8**	**6.9**	**0**	**4**	**246**	**299**	**785**	**2396**	**4140**	**2488**	**637**	**129**	**30**	**14**
18H,6-24	**11364**	**54.4**	**47.9**	**6.9**	**0**	**4**	**246**	**302**	**786**	**2411**	**4188**	**2535**	**677**	**164**	**35**	**16**
24H,0-24	**11528**	**54.5**	**48**	**7**	**0**	**4**	**251**	**302**	**788**	**2417**	**4216**	**2572**	**723**	**186**	**49**	**20**

Data produced by
Auto Surveys Ltd

10638	JULY 2021		SHOREHAM BY SEA		Site No: 10638002 Channel: Southbound					Location	Site 2 - A283 Steyning Rd, Shoreham by Sea					
Time Period	**Total Vehicles**	**85%ile Speed**	**Mean Speed**	**Stand Dev.**	**<11Mph**	**11-<21**	**21-<31**	**31-<36**	**36-<41**	**41-<46**	**46-<51**	**51-<56**	**56-<61**	**61-<66**	**66-<71**	**=>71**
Daily Totals																
Fri 16-Jul-21	**12137**	53.7	45.9	9	4	272	615	428	909	2753	4111	2247	589	158	33	18
Sat 17-Jul-21	**9660**	55	48.1	7.8	3	46	271	202	666	1880	3322	2257	727	206	53	27
Sun 18-Jul-21	**9559**	54.4	45.5	10.7	114	301	590	282	703	1887	2979	1864	591	173	48	27
Mon 19-Jul-21	**10775**	54.6	48.2	6.6	0	6	172	178	708	2408	3977	2398	723	155	41	9
Tue 20-Jul-21	**10905**	54.7	48.1	7.1	1	16	262	263	646	2330	3815	2607	769	145	29	22
Wed 21-Jul-21	**11332**	54.5	48	7.2	3	29	287	230	625	2414	4293	2516	692	175	48	20
Thu 22-Jul-21	**11528**	54.5	48	7	0	4	251	302	788	2417	4216	2572	723	186	49	20
Total Vehicles																
[--]	**75896**	54.5	47.4	7.9	125	674	2448	1885	5045	16089	26713	16461	4814	1198	301	143



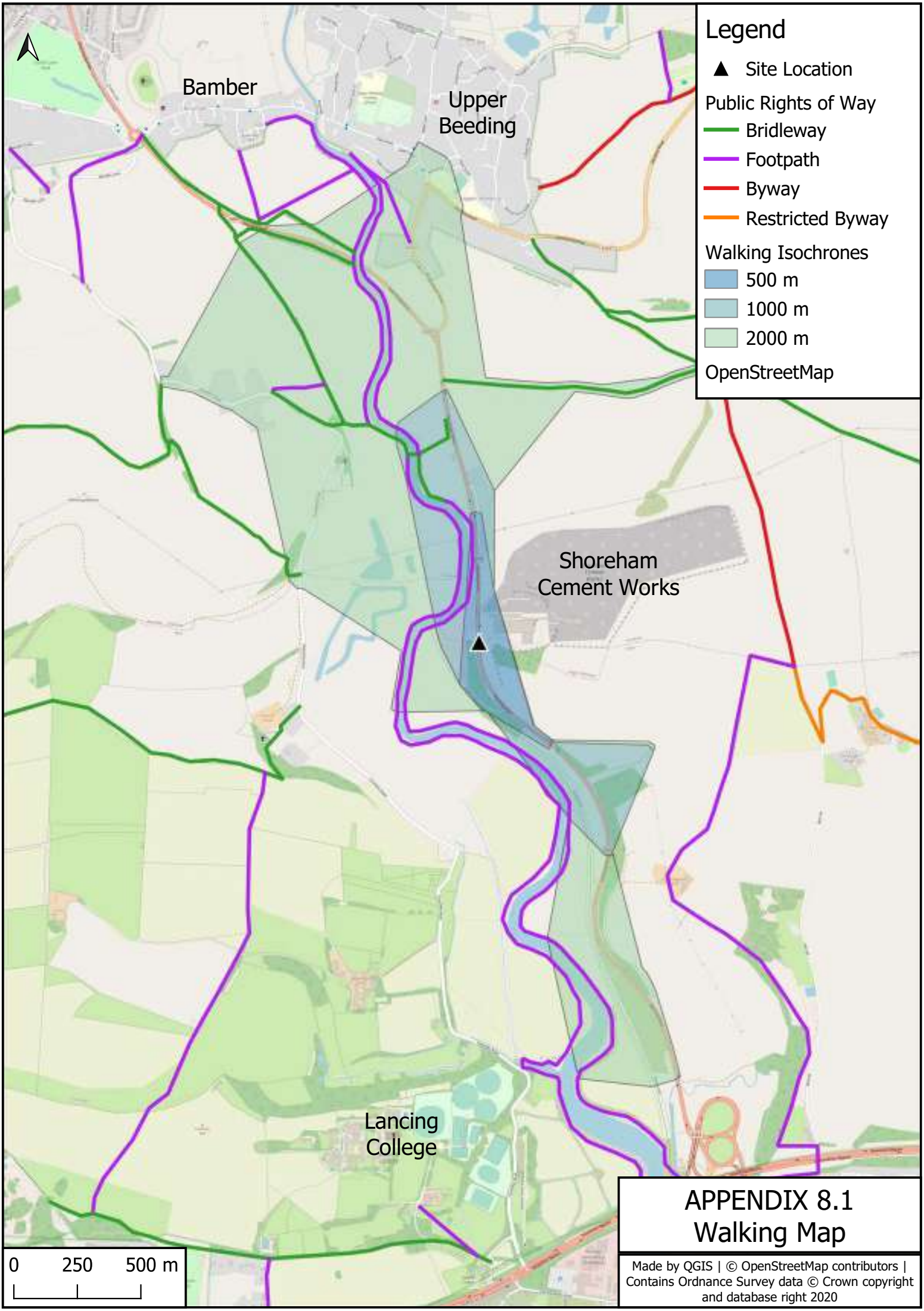


Data produced by
Auto Surveys Ltd

APPENDIX 8.0

ACCESSIBILITY BY NON-CAR MODES

8.1 Pedestrian Infrastructure and Public Rights of Way
8.2 Cycling Isochrone Map and National Cycle Network
8.3 Bus Stop Locations and Bus Routes



APPENDIX 8.1 Walking Map

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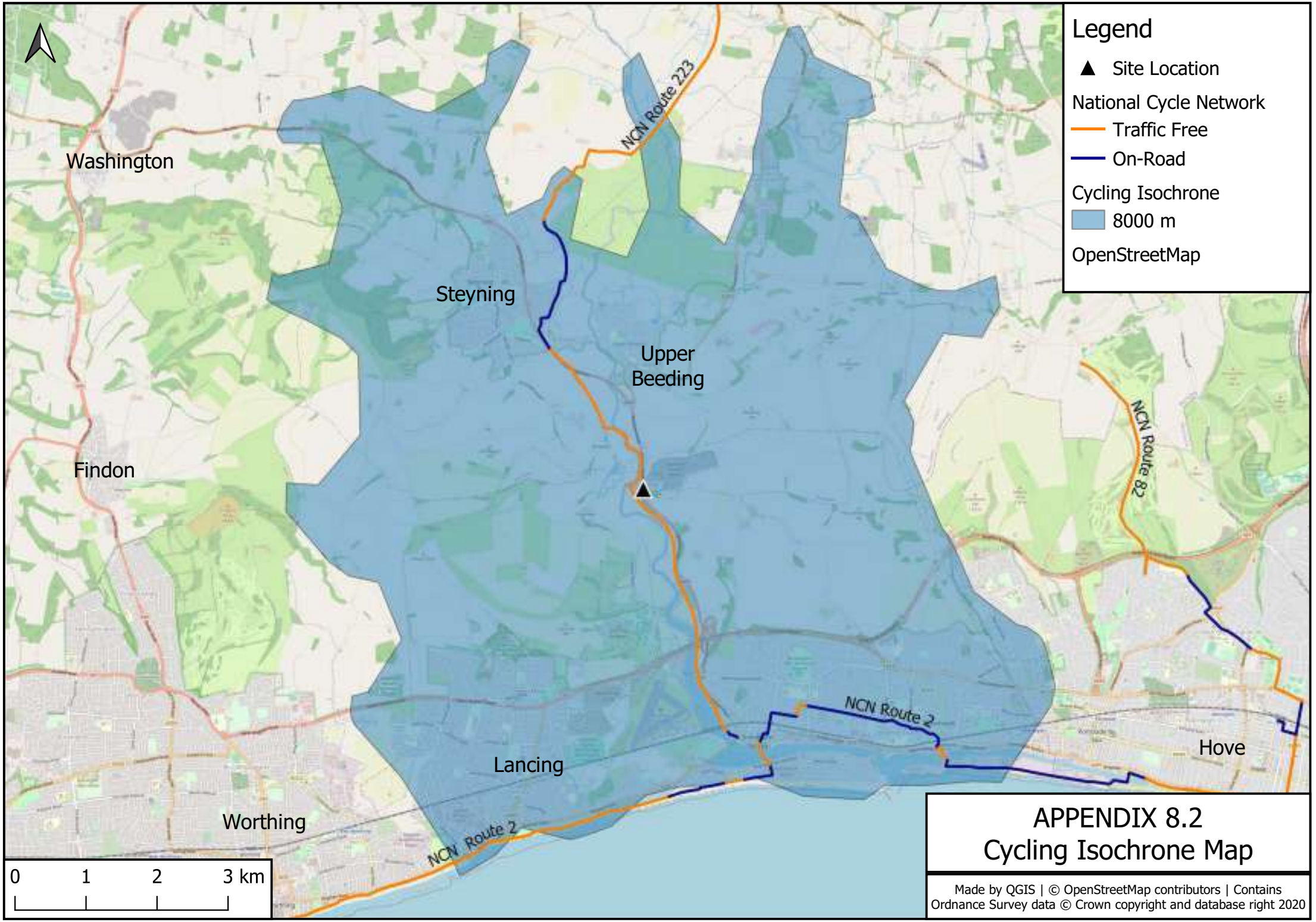
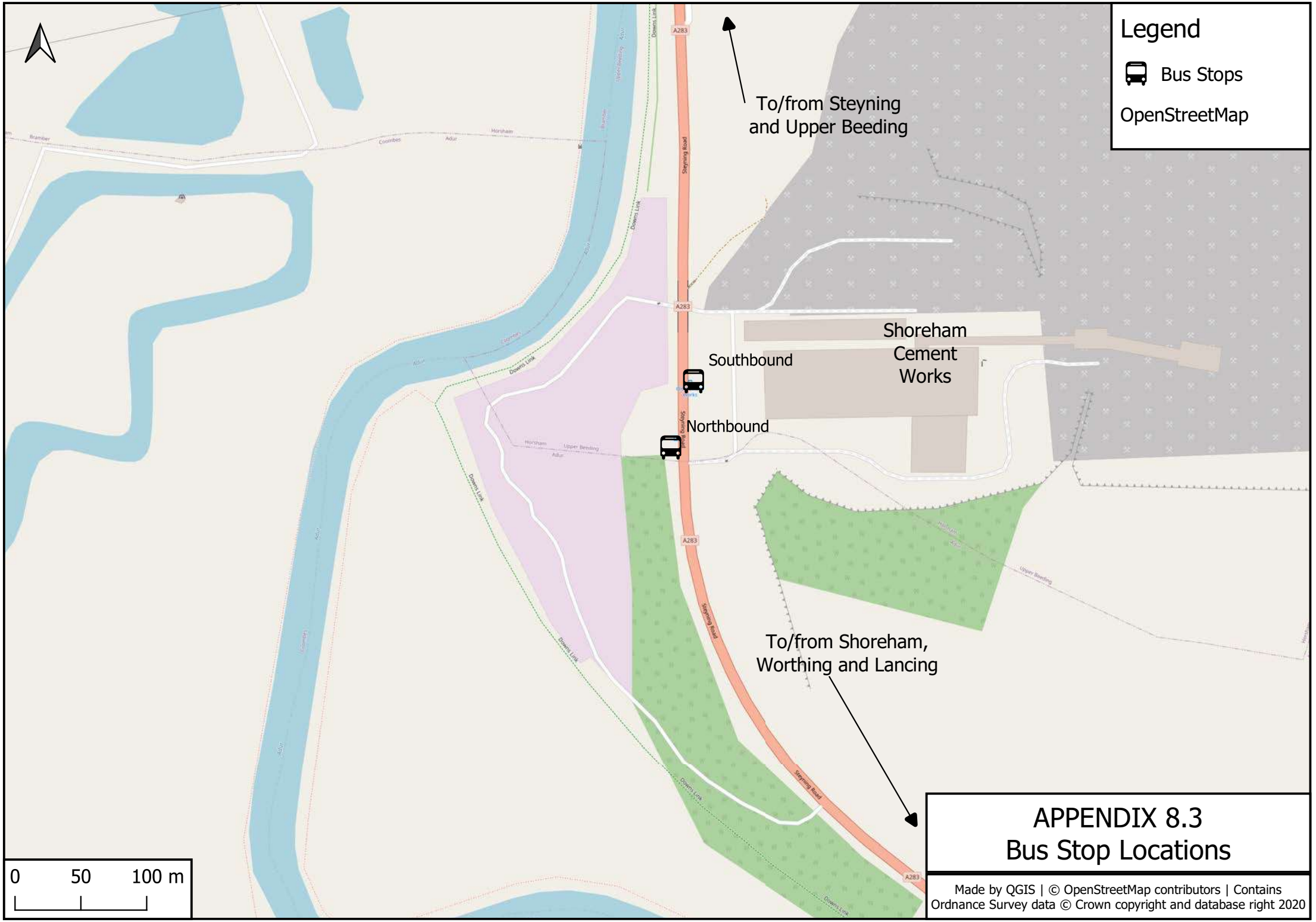

Legend
Site Location
National Cycle Network
Traffic Free
On-Road
Cycling Isochrone
8000 m
OpenStreetMap
Washington
Steyning
Upper Beeding
Findon
Lancing
Worthing
Hove
NCN Route 223
NCN Route 82
NCN Route 2
NCN Route 2
0 1 2 3 km
APPENDIX 8.2
Cycling Isochrone Map
Made by QGIS | © OpenStreetMap contributors | Contains Ordnance Survey data © Crown copyright and database right 2020



APPENDIX 8.3
Bus Stop Locations

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APPENDIX 9.0

PROPOSED TRIP GENERATION

9.1	TRICS: Residential
9.2	TRICS: Employment
9.3	TRICS: Convenience Store
9.4	TRICS: Hotel
9.5	TRICS: Offices
9.6	TRICS: Pub/Restaurant
9.7	TRICS: Art Gallery/Museum/Exhibitions
9.8	TRICS: Leisure Centre (Daily Profile)

Calculation Reference: AUDIT-733701-210724-0705

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	3 days
	KC	KENT	2 days
	SC	SURREY	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	1 days
09	NORTH		
	DH	DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 54 to 432 (units:)
Range Selected by User: 50 to 600 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 08/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	2 days
Wednesday	3 days
Thursday	2 days
Friday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	12 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

APPENDIX 9.1
TRICS: RESIDENTIAL

Selected Locations:

Edge of Town	12

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	10

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	12 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
5,001 to 10,000	3 days
10,001 to 15,000	6 days
15,001 to 20,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	9 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	12 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	12 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 DH-03-A-03 SEMI-DETACHED & TERRACED DURHAM
PILGRIMS WAY
DURHAM

Edge of Town
Residential Zone
Total No of Dwellings: 57
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

2 DS-03-A-02 MIXED HOUSES DERBYSHIRE
RADBOURNE LANE
DERBY

Edge of Town
Residential Zone
Total No of Dwellings: 371
Survey date: TUESDAY *10/07/18* *Survey Type: MANUAL*

3 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

4 ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total No of Dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

5 ES-03-A-05 MIXED HOUSES & FLATS EAST SUSSEX
RATTLE ROAD
NEAR EASTBOURNE
STONE CROSS
Edge of Town
Residential Zone
Total No of Dwellings: 99
Survey date: WEDNESDAY *05/06/19* *Survey Type: MANUAL*

6 KC-03-A-04 SEMI-DETACHED & TERRACED KENT
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total No of Dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

7 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total No of Dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

8 NE-03-A-02 SEMI DETACHED & DETACHED NORTH EAST LINCOLNSHIRE
HANOVER WALK
SCUNTHORPE

Edge of Town
No Sub Category
Total No of Dwellings: 432
Survey date: MONDAY *12/05/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	NY-03-A-10	HOUSES AND FLATS	NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD		
	RIPON		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	71	
	Survey date: TUESDAY	*17/09/13*	*Survey Type: MANUAL*
10	SC-03-A-04	DETACHED & TERRACED	SURREY
	HIGH ROAD		
	BYFLEET		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	71	
	Survey date: THURSDAY	*23/01/14*	*Survey Type: MANUAL*
11	SH-03-A-05	SEMI-DETACHED/TERRACED	SHROPSHIRE
	SANDCROFT		
	TELFORD		
	SUTTON HILL		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	54	
	Survey date: THURSDAY	*24/10/13*	*Survey Type: MANUAL*
12	ST-03-A-07	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	BEACONSIDE		
	STAFFORD		
	MARSTON GATE		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	248	
	Survey date: WEDNESDAY	*22/11/17*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.081	12	179	0.305	12	179	0.386
08:00 - 09:00	12	179	0.125	12	179	0.385	12	179	0.510
09:00 - 10:00	12	179	0.125	12	179	0.152	12	179	0.277
10:00 - 11:00	12	179	0.117	12	179	0.146	12	179	0.263
11:00 - 12:00	12	179	0.130	12	179	0.142	12	179	0.272
12:00 - 13:00	12	179	0.145	12	179	0.143	12	179	0.288
13:00 - 14:00	12	179	0.152	12	179	0.147	12	179	0.299
14:00 - 15:00	12	179	0.176	12	179	0.162	12	179	0.338
15:00 - 16:00	12	179	0.255	12	179	0.178	12	179	0.433
16:00 - 17:00	12	179	0.275	12	179	0.175	12	179	0.450
17:00 - 18:00	12	179	0.342	12	179	0.135	12	179	0.477
18:00 - 19:00	12	179	0.292	12	179	0.162	12	179	0.454
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.215			2.232			4.447

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	54 - 432 (units:)
Survey date date range:	01/01/13 - 08/10/20
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.002	12	179	0.001	12	179	0.003
08:00 - 09:00	12	179	0.002	12	179	0.001	12	179	0.003
09:00 - 10:00	12	179	0.002	12	179	0.001	12	179	0.003
10:00 - 11:00	12	179	0.003	12	179	0.003	12	179	0.006
11:00 - 12:00	12	179	0.001	12	179	0.001	12	179	0.002
12:00 - 13:00	12	179	0.001	12	179	0.003	12	179	0.004
13:00 - 14:00	12	179	0.004	12	179	0.001	12	179	0.005
14:00 - 15:00	12	179	0.001	12	179	0.003	12	179	0.004
15:00 - 16:00	12	179	0.002	12	179	0.003	12	179	0.005
16:00 - 17:00	12	179	0.003	12	179	0.003	12	179	0.006
17:00 - 18:00	12	179	0.001	12	179	0.000	12	179	0.001
18:00 - 19:00	12	179	0.000	12	179	0.000	12	179	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.020			0.042

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.005	12	179	0.005	12	179	0.010
08:00 - 09:00	12	179	0.004	12	179	0.007	12	179	0.011
09:00 - 10:00	12	179	0.000	12	179	0.002	12	179	0.002
10:00 - 11:00	12	179	0.000	12	179	0.003	12	179	0.003
11:00 - 12:00	12	179	0.003	12	179	0.004	12	179	0.007
12:00 - 13:00	12	179	0.001	12	179	0.002	12	179	0.003
13:00 - 14:00	12	179	0.003	12	179	0.001	12	179	0.004
14:00 - 15:00	12	179	0.002	12	179	0.002	12	179	0.004
15:00 - 16:00	12	179	0.002	12	179	0.004	12	179	0.006
16:00 - 17:00	12	179	0.007	12	179	0.003	12	179	0.010
17:00 - 18:00	12	179	0.007	12	179	0.004	12	179	0.011
18:00 - 19:00	12	179	0.004	12	179	0.005	12	179	0.009
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.038			0.042			0.080

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.011	12	179	0.023	12	179	0.034
08:00 - 09:00	12	179	0.022	12	179	0.056	12	179	0.078
09:00 - 10:00	12	179	0.031	12	179	0.027	12	179	0.058
10:00 - 11:00	12	179	0.026	12	179	0.033	12	179	0.059
11:00 - 12:00	12	179	0.023	12	179	0.026	12	179	0.049
12:00 - 13:00	12	179	0.025	12	179	0.026	12	179	0.051
13:00 - 14:00	12	179	0.024	12	179	0.021	12	179	0.045
14:00 - 15:00	12	179	0.027	12	179	0.036	12	179	0.063
15:00 - 16:00	12	179	0.054	12	179	0.040	12	179	0.094
16:00 - 17:00	12	179	0.048	12	179	0.026	12	179	0.074
17:00 - 18:00	12	179	0.049	12	179	0.021	12	179	0.070
18:00 - 19:00	12	179	0.032	12	179	0.038	12	179	0.070
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.372			0.373			0.745

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.000	12	179	0.018	12	179	0.018
08:00 - 09:00	12	179	0.000	12	179	0.030	12	179	0.030
09:00 - 10:00	12	179	0.002	12	179	0.009	12	179	0.011
10:00 - 11:00	12	179	0.006	12	179	0.007	12	179	0.013
11:00 - 12:00	12	179	0.004	12	179	0.007	12	179	0.011
12:00 - 13:00	12	179	0.005	12	179	0.006	12	179	0.011
13:00 - 14:00	12	179	0.004	12	179	0.005	12	179	0.009
14:00 - 15:00	12	179	0.005	12	179	0.003	12	179	0.008
15:00 - 16:00	12	179	0.021	12	179	0.009	12	179	0.030
16:00 - 17:00	12	179	0.021	12	179	0.003	12	179	0.024
17:00 - 18:00	12	179	0.014	12	179	0.003	12	179	0.017
18:00 - 19:00	12	179	0.022	12	179	0.007	12	179	0.029
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.104			0.107			0.211

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	179	0.118	12	179	0.500	12	179	0.618
08:00 - 09:00	12	179	0.196	12	179	0.769	12	179	0.965
09:00 - 10:00	12	179	0.202	12	179	0.272	12	179	0.474
10:00 - 11:00	12	179	0.190	12	179	0.252	12	179	0.442
11:00 - 12:00	12	179	0.216	12	179	0.257	12	179	0.473
12:00 - 13:00	12	179	0.237	12	179	0.232	12	179	0.469
13:00 - 14:00	12	179	0.252	12	179	0.245	12	179	0.497
14:00 - 15:00	12	179	0.289	12	179	0.274	12	179	0.563
15:00 - 16:00	12	179	0.526	12	179	0.317	12	179	0.843
16:00 - 17:00	12	179	0.558	12	179	0.303	12	179	0.861
17:00 - 18:00	12	179	0.611	12	179	0.227	12	179	0.838
18:00 - 19:00	12	179	0.503	12	179	0.308	12	179	0.811
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.898			3.956			7.854

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210724-0741

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

06	WEST MIDLANDS		
	WK	WARWICKSHIRE	2 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
11	SCOTLAND		
	AG	ANGUS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 20860 to 150564 (units: sqm)
Range Selected by User: 20000 to 974258 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 26/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	3 days
Wednesday	1 days
Thursday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	5

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	2
Out of Town	2
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

APPENDIX 9.2
TRICS: EMPLOYMENT

Secondary Filtering selection:

Use Class:

Not Known	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

5,001 to 10,000	3 days
10,001 to 15,000	1 days
20,001 to 25,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	3 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	5 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	5 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AG-02-D-02 INDUSTRIAL ESTATE ANGUS
A933 WESTWAY
ARBROATH
HOSPITALFIELD
Edge of Town
No Sub Category
Total Gross floor area: 78500 sqm
Survey date: TUESDAY 25/04/17 Survey Type: MANUAL

2 NY-02-D-02 INDUSTRIAL ESTATE NORTH YORKSHIRE
RACECOURSE ROAD
RICHMOND

Edge of Town
Out of Town
Total Gross floor area: 35183 sqm
Survey date: TUESDAY 12/03/19 Survey Type: MANUAL

3 WK-02-D-01 INDUSTRIAL ESTATE WARWICKSHIRE
CASTLE MOUND WAY
RUGBY

Edge of Town
Industrial Zone
Total Gross floor area: 150564 sqm
Survey date: WEDNESDAY 27/06/18 Survey Type: MANUAL

4 WK-02-D-03 INDUSTRIAL ESTATE WARWICKSHIRE
EASTBORO WAY
NUNEATON

Edge of Town
Industrial Zone
Total Gross floor area: 20860 sqm
Survey date: THURSDAY 26/09/19 Survey Type: MANUAL

5 WO-02-D-03 INDUSTRIAL ESTATE WORCESTERSHIRE
MILLENNIUM WAY
EVESHAM

Edge of Town
Out of Town
Total Gross floor area: 84575 sqm
Survey date: TUESDAY 26/06/18 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
EX-02-D-04	Does not contain B8
WK-02-D-02	Does not contain B2

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.077	1	20860	0.014	1	20860	0.091
06:00 - 07:00	1	20860	0.125	1	20860	0.029	1	20860	0.154
07:00 - 08:00	5	73936	0.282	5	73936	0.079	5	73936	0.361
08:00 - 09:00	5	73936	0.317	5	73936	0.121	5	73936	0.438
09:00 - 10:00	5	73936	0.213	5	73936	0.130	5	73936	0.343
10:00 - 11:00	5	73936	0.184	5	73936	0.134	5	73936	0.318
11:00 - 12:00	5	73936	0.172	5	73936	0.149	5	73936	0.321
12:00 - 13:00	5	73936	0.177	5	73936	0.216	5	73936	0.393
13:00 - 14:00	5	73936	0.222	5	73936	0.196	5	73936	0.418
14:00 - 15:00	5	73936	0.152	5	73936	0.201	5	73936	0.353
15:00 - 16:00	5	73936	0.148	5	73936	0.214	5	73936	0.362
16:00 - 17:00	5	73936	0.136	5	73936	0.284	5	73936	0.420
17:00 - 18:00	5	73936	0.094	5	73936	0.336	5	73936	0.430
18:00 - 19:00	5	73936	0.070	5	73936	0.128	5	73936	0.198
19:00 - 20:00	1	20860	0.235	1	20860	0.206	1	20860	0.441
20:00 - 21:00	1	20860	0.029	1	20860	0.129	1	20860	0.158
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.633			2.566			5.199

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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Parameter summary

Trip rate parameter range selected:	20860 - 150564 (units: sqm)
Survey date date range:	01/01/13 - 26/09/19
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.000	1	20860	0.005	1	20860	0.005
06:00 - 07:00	1	20860	0.005	1	20860	0.000	1	20860	0.005
07:00 - 08:00	5	73936	0.013	5	73936	0.014	5	73936	0.027
08:00 - 09:00	5	73936	0.017	5	73936	0.019	5	73936	0.036
09:00 - 10:00	5	73936	0.024	5	73936	0.018	5	73936	0.042
10:00 - 11:00	5	73936	0.022	5	73936	0.020	5	73936	0.042
11:00 - 12:00	5	73936	0.018	5	73936	0.019	5	73936	0.037
12:00 - 13:00	5	73936	0.025	5	73936	0.019	5	73936	0.044
13:00 - 14:00	5	73936	0.020	5	73936	0.022	5	73936	0.042
14:00 - 15:00	5	73936	0.019	5	73936	0.019	5	73936	0.038
15:00 - 16:00	5	73936	0.022	5	73936	0.021	5	73936	0.043
16:00 - 17:00	5	73936	0.016	5	73936	0.016	5	73936	0.032
17:00 - 18:00	5	73936	0.011	5	73936	0.010	5	73936	0.021
18:00 - 19:00	5	73936	0.009	5	73936	0.010	5	73936	0.019
19:00 - 20:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
20:00 - 21:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.221			0.212			0.433

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
06:00 - 07:00	1	20860	0.010	1	20860	0.000	1	20860	0.010
07:00 - 08:00	5	73936	0.007	5	73936	0.001	5	73936	0.008
08:00 - 09:00	5	73936	0.005	5	73936	0.001	5	73936	0.006
09:00 - 10:00	5	73936	0.001	5	73936	0.001	5	73936	0.002
10:00 - 11:00	5	73936	0.000	5	73936	0.000	5	73936	0.000
11:00 - 12:00	5	73936	0.001	5	73936	0.001	5	73936	0.002
12:00 - 13:00	5	73936	0.001	5	73936	0.001	5	73936	0.002
13:00 - 14:00	5	73936	0.002	5	73936	0.001	5	73936	0.003
14:00 - 15:00	5	73936	0.002	5	73936	0.003	5	73936	0.005
15:00 - 16:00	5	73936	0.001	5	73936	0.007	5	73936	0.008
16:00 - 17:00	5	73936	0.001	5	73936	0.004	5	73936	0.005
17:00 - 18:00	5	73936	0.002	5	73936	0.008	5	73936	0.010
18:00 - 19:00	5	73936	0.005	5	73936	0.002	5	73936	0.007
19:00 - 20:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
20:00 - 21:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.038			0.030			0.068

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
06:00 - 07:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
07:00 - 08:00	5	73936	0.009	5	73936	0.001	5	73936	0.010
08:00 - 09:00	5	73936	0.005	5	73936	0.002	5	73936	0.007
09:00 - 10:00	5	73936	0.003	5	73936	0.002	5	73936	0.005
10:00 - 11:00	5	73936	0.004	5	73936	0.002	5	73936	0.006
11:00 - 12:00	5	73936	0.002	5	73936	0.003	5	73936	0.005
12:00 - 13:00	5	73936	0.005	5	73936	0.006	5	73936	0.011
13:00 - 14:00	5	73936	0.010	5	73936	0.006	5	73936	0.016
14:00 - 15:00	5	73936	0.003	5	73936	0.006	5	73936	0.009
15:00 - 16:00	5	73936	0.004	5	73936	0.005	5	73936	0.009
16:00 - 17:00	5	73936	0.001	5	73936	0.005	5	73936	0.006
17:00 - 18:00	5	73936	0.002	5	73936	0.008	5	73936	0.010
18:00 - 19:00	5	73936	0.001	5	73936	0.002	5	73936	0.003
19:00 - 20:00	1	20860	0.005	1	20860	0.005	1	20860	0.010
20:00 - 21:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.054			0.053			0.107

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
06:00 - 07:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
07:00 - 08:00	5	73936	0.019	5	73936	0.005	5	73936	0.024
08:00 - 09:00	5	73936	0.011	5	73936	0.001	5	73936	0.012
09:00 - 10:00	5	73936	0.004	5	73936	0.001	5	73936	0.005
10:00 - 11:00	5	73936	0.001	5	73936	0.001	5	73936	0.002
11:00 - 12:00	5	73936	0.002	5	73936	0.002	5	73936	0.004
12:00 - 13:00	5	73936	0.004	5	73936	0.006	5	73936	0.010
13:00 - 14:00	5	73936	0.007	5	73936	0.005	5	73936	0.012
14:00 - 15:00	5	73936	0.002	5	73936	0.006	5	73936	0.008
15:00 - 16:00	5	73936	0.003	5	73936	0.018	5	73936	0.021
16:00 - 17:00	5	73936	0.002	5	73936	0.004	5	73936	0.006
17:00 - 18:00	5	73936	0.002	5	73936	0.007	5	73936	0.009
18:00 - 19:00	5	73936	0.005	5	73936	0.001	5	73936	0.006
19:00 - 20:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
20:00 - 21:00	1	20860	0.000	1	20860	0.000	1	20860	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.062			0.057			0.119

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	20860	0.096	1	20860	0.014	1	20860	0.110
06:00 - 07:00	1	20860	0.211	1	20860	0.034	1	20860	0.245
07:00 - 08:00	5	73936	0.416	5	73936	0.090	5	73936	0.506
08:00 - 09:00	5	73936	0.447	5	73936	0.137	5	73936	0.584
09:00 - 10:00	5	73936	0.289	5	73936	0.152	5	73936	0.441
10:00 - 11:00	5	73936	0.243	5	73936	0.163	5	73936	0.406
11:00 - 12:00	5	73936	0.213	5	73936	0.192	5	73936	0.405
12:00 - 13:00	5	73936	0.224	5	73936	0.278	5	73936	0.502
13:00 - 14:00	5	73936	0.291	5	73936	0.254	5	73936	0.545
14:00 - 15:00	5	73936	0.205	5	73936	0.287	5	73936	0.492
15:00 - 16:00	5	73936	0.194	5	73936	0.326	5	73936	0.520
16:00 - 17:00	5	73936	0.178	5	73936	0.372	5	73936	0.550
17:00 - 18:00	5	73936	0.124	5	73936	0.469	5	73936	0.593
18:00 - 19:00	5	73936	0.113	5	73936	0.189	5	73936	0.302
19:00 - 20:00	1	20860	0.240	1	20860	0.216	1	20860	0.456
20:00 - 21:00	1	20860	0.029	1	20860	0.134	1	20860	0.163
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.513			3.307			6.820

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210724-0736

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : O - CONVENIENCE STORE
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
03	SOUTH WEST		
	BA	BATH & NORTH EAST SOMERSET	1 days
	DC	DORSET	1 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
11	SCOTLAND		
	FA	FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 165 to 300 (units: sqm)
Range Selected by User: 100 to 300 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 25/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Wednesday	1 days
Friday	4 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	6

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

APPENDIX 9.3
TRICS: CONVENIENCE STORE

Secondary Filtering selection:

Use Class:

Not Known	3 days
E(a)	3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

15,001 to 20,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	6 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	6 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BA-01-O-01 CO-OP BATH & NORTH EAST SOMERSET
JULIAN ROAD
BATH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 165 sqm
Survey date: FRIDAY *29/09/06* *Survey Type: MANUAL*

2 DC-01-O-01 LONDIS DORSET
MAUD ROAD
DORCHESTER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 176 sqm
Survey date: FRIDAY *04/07/08* *Survey Type: MANUAL*

3 ES-01-O-01 ONE STOP EAST SUSSEX
THE SIDINGS
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 280 sqm
Survey date: WEDNESDAY *19/12/12* *Survey Type: MANUAL*

4 FA-01-O-01 SPAR FALKIRK
THORNHILL ROAD
FALKIRK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 300 sqm
Survey date: MONDAY *09/04/07* *Survey Type: MANUAL*

5 NF-01-O-01 TESCO EXPRESS NORFOLK
DEREHAM ROAD
NORWICH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 298 sqm
Survey date: FRIDAY *26/10/12* *Survey Type: MANUAL*

6 WL-01-O-01 ONE STOP WILTSHIRE
THE CIRCLE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 292 sqm
Survey date: FRIDAY *23/09/16* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	2.249	2	289	1.903	2	289	4.152
07:00 - 08:00	5	242	9.083	5	242	8.175	5	242	17.258
08:00 - 09:00	5	242	11.148	5	242	10.983	5	242	22.131
09:00 - 10:00	5	242	8.753	5	242	7.680	5	242	16.433
10:00 - 11:00	6	252	6.552	6	252	6.221	6	252	12.773
11:00 - 12:00	6	252	6.420	6	252	6.949	6	252	13.369
12:00 - 13:00	6	252	9.199	6	252	8.802	6	252	18.001
13:00 - 14:00	6	252	6.750	6	252	6.750	6	252	13.500
14:00 - 15:00	6	252	7.611	6	252	7.148	6	252	14.759
15:00 - 16:00	6	252	7.809	6	252	8.008	6	252	15.817
16:00 - 17:00	6	252	11.714	6	252	10.192	6	252	21.906
17:00 - 18:00	6	252	11.449	6	252	10.258	6	252	21.707
18:00 - 19:00	6	252	12.773	6	252	12.972	6	252	25.745
19:00 - 20:00	6	252	11.251	6	252	12.508	6	252	23.759
20:00 - 21:00	4	264	7.116	4	264	8.634	4	264	15.750
21:00 - 22:00	2	289	3.287	2	289	4.844	2	289	8.131
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			133.164			132.027			265.191

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	165 - 300 (units: sqm)
Survey date date range:	01/01/00 - 25/09/19
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	0.000	2	289	0.000	2	289	0.000
07:00 - 08:00	5	242	0.248	5	242	0.330	5	242	0.578
08:00 - 09:00	5	242	0.248	5	242	0.165	5	242	0.413
09:00 - 10:00	5	242	0.165	5	242	0.248	5	242	0.413
10:00 - 11:00	6	252	0.265	6	252	0.265	6	252	0.530
11:00 - 12:00	6	252	0.000	6	252	0.000	6	252	0.000
12:00 - 13:00	6	252	0.132	6	252	0.132	6	252	0.264
13:00 - 14:00	6	252	0.066	6	252	0.000	6	252	0.066
14:00 - 15:00	6	252	0.000	6	252	0.000	6	252	0.000
15:00 - 16:00	6	252	0.000	6	252	0.000	6	252	0.000
16:00 - 17:00	6	252	0.000	6	252	0.000	6	252	0.000
17:00 - 18:00	6	252	0.000	6	252	0.000	6	252	0.000
18:00 - 19:00	6	252	0.000	6	252	0.000	6	252	0.000
19:00 - 20:00	6	252	0.000	6	252	0.000	6	252	0.000
20:00 - 21:00	4	264	0.000	4	264	0.000	4	264	0.000
21:00 - 22:00	2	289	0.000	2	289	0.000	2	289	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.124			1.140			2.264

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	0.519	2	289	0.346	2	289	0.865
07:00 - 08:00	5	242	1.156	5	242	1.404	5	242	2.560
08:00 - 09:00	5	242	1.486	5	242	1.486	5	242	2.972
09:00 - 10:00	5	242	0.495	5	242	0.330	5	242	0.825
10:00 - 11:00	6	252	0.265	6	252	0.132	6	252	0.397
11:00 - 12:00	6	252	0.066	6	252	0.132	6	252	0.198
12:00 - 13:00	6	252	0.662	6	252	0.596	6	252	1.258
13:00 - 14:00	6	252	0.265	6	252	0.397	6	252	0.662
14:00 - 15:00	6	252	0.331	6	252	0.331	6	252	0.662
15:00 - 16:00	6	252	0.662	6	252	0.728	6	252	1.390
16:00 - 17:00	6	252	1.257	6	252	0.927	6	252	2.184
17:00 - 18:00	6	252	0.794	6	252	0.662	6	252	1.456
18:00 - 19:00	6	252	0.860	6	252	0.794	6	252	1.654
19:00 - 20:00	6	252	0.794	6	252	0.662	6	252	1.456
20:00 - 21:00	4	264	0.285	4	264	0.664	4	264	0.949
21:00 - 22:00	2	289	0.519	2	289	0.519	2	289	1.038
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			10.416			10.110			20.526

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	2.422	2	289	2.249	2	289	4.671
07:00 - 08:00	5	242	12.056	5	242	11.808	5	242	23.864
08:00 - 09:00	5	242	18.910	5	242	17.836	5	242	36.746
09:00 - 10:00	5	242	13.625	5	242	11.808	5	242	25.433
10:00 - 11:00	6	252	13.038	6	252	12.508	6	252	25.546
11:00 - 12:00	6	252	14.428	6	252	13.766	6	252	28.194
12:00 - 13:00	6	252	13.236	6	252	14.163	6	252	27.399
13:00 - 14:00	6	252	14.097	6	252	15.089	6	252	29.186
14:00 - 15:00	6	252	14.295	6	252	14.560	6	252	28.855
15:00 - 16:00	6	252	25.281	6	252	23.031	6	252	48.312
16:00 - 17:00	6	252	20.119	6	252	20.318	6	252	40.437
17:00 - 18:00	6	252	23.230	6	252	21.906	6	252	45.136
18:00 - 19:00	6	252	24.222	6	252	25.083	6	252	49.305
19:00 - 20:00	6	252	24.619	6	252	25.943	6	252	50.562
20:00 - 21:00	4	264	14.516	4	264	14.706	4	264	29.222
21:00 - 22:00	2	289	12.976	2	289	14.360	2	289	27.336
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			261.070			259.134			520.204

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	0.000	2	289	0.000	2	289	0.000
07:00 - 08:00	5	242	0.248	5	242	0.413	5	242	0.661
08:00 - 09:00	5	242	0.413	5	242	0.495	5	242	0.908
09:00 - 10:00	5	242	0.330	5	242	0.330	5	242	0.660
10:00 - 11:00	6	252	0.265	6	252	0.265	6	252	0.530
11:00 - 12:00	6	252	0.596	6	252	0.397	6	252	0.993
12:00 - 13:00	6	252	0.199	6	252	0.265	6	252	0.464
13:00 - 14:00	6	252	0.463	6	252	0.265	6	252	0.728
14:00 - 15:00	6	252	0.463	6	252	0.331	6	252	0.794
15:00 - 16:00	6	252	0.331	6	252	0.265	6	252	0.596
16:00 - 17:00	6	252	0.331	6	252	0.199	6	252	0.530
17:00 - 18:00	6	252	0.728	6	252	0.529	6	252	1.257
18:00 - 19:00	6	252	0.397	6	252	0.199	6	252	0.596
19:00 - 20:00	6	252	0.000	6	252	0.000	6	252	0.000
20:00 - 21:00	4	264	0.000	4	264	0.000	4	264	0.000
21:00 - 22:00	2	289	0.000	2	289	0.000	2	289	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.764			3.953			8.717

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	289	5.536	2	289	4.671	2	289	10.207
07:00 - 08:00	5	242	24.773	5	242	23.699	5	242	48.472
08:00 - 09:00	5	242	34.434	5	242	33.031	5	242	67.465
09:00 - 10:00	5	242	24.938	5	242	21.965	5	242	46.903
10:00 - 11:00	6	252	21.310	6	252	20.251	6	252	41.561
11:00 - 12:00	6	252	23.031	6	252	23.230	6	252	46.261
12:00 - 13:00	6	252	25.149	6	252	25.546	6	252	50.695
13:00 - 14:00	6	252	22.700	6	252	23.759	6	252	46.459
14:00 - 15:00	6	252	24.156	6	252	23.825	6	252	47.981
15:00 - 16:00	6	252	36.069	6	252	34.282	6	252	70.351
16:00 - 17:00	6	252	37.128	6	252	34.745	6	252	71.873
17:00 - 18:00	6	252	39.643	6	252	37.790	6	252	77.433
18:00 - 19:00	6	252	42.555	6	252	42.819	6	252	85.374
19:00 - 20:00	6	252	39.907	6	252	42.819	6	252	82.726
20:00 - 21:00	4	264	24.099	4	264	27.419	4	264	51.518
21:00 - 22:00	2	289	18.858	2	289	21.799	2	289	40.657
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			444.286			441.650			885.936

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-210811-0817

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : A - HOTELS
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BU	BUCKINGHAMSHIRE	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	1 days
10	WALES		
	SW	SWANSEA	1 days
11	SCOTLAND		
	AG	ANGUS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 720 to 17624 (units: sqm)
Range Selected by User: 720 to 17624 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 25/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Thursday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	6

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	1
Development Zone	1
Residential Zone	1
Out of Town	1
No Sub Category	1

APPENDIX 9.4
TRICS: HOTEL

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C1	6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	4 days
10,001 to 15,000	1 days
100,001 or More	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	6 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AG-06-A-01 BOUTIQUE B&B ANGUS
CLIFFBURN ROAD
ARBROATH
HAYSHEAD
Edge of Town
Residential Zone
Total Gross floor area: 720 sqm
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

2 BU-06-A-02 HOLIDAY INN BUCKINGHAMSHIRE
NEW ROAD
AYLESBURY
WESTON TURVILLE
Edge of Town
Out of Town
Total Gross floor area: 4675 sqm
Survey date: WEDNESDAY *01/10/14* *Survey Type: MANUAL*

3 DV-06-A-03 FUTURE INN DEVON
WILLIAM PRANCE ROAD
PLYMOUTH

Edge of Town
Industrial Zone
Total Gross floor area: 9850 sqm
Survey date: WEDNESDAY *18/07/12* *Survey Type: MANUAL*

4 LE-06-A-01 MARRIOTT LEICESTERSHIRE
SMITH WAY
LEICESTER
ENDERBY
Edge of Town
Commercial Zone
Total Gross floor area: 17624 sqm
Survey date: THURSDAY *12/07/18* *Survey Type: MANUAL*

5 NF-06-A-02 HOLIDAY INN NORFOLK
IPSWICH ROAD
NORWICH
HARFORD PARK
Edge of Town
No Sub Category
Total Gross floor area: 5600 sqm
Survey date: THURSDAY *30/09/10* *Survey Type: MANUAL*

6 SW-06-A-01 IBIS SWANSEA
FABIAN WAY
SWANSEA
PORT TENNANT
Edge of Town
Development Zone
Total Gross floor area: 2996 sqm
Survey date: MONDAY *07/10/19* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.203	6	6911	0.379	6	6911	0.582
08:00 - 09:00	6	6911	0.383	6	6911	0.509	6	6911	0.892
09:00 - 10:00	6	6911	0.485	6	6911	0.292	6	6911	0.777
10:00 - 11:00	6	6911	0.323	6	6911	0.258	6	6911	0.581
11:00 - 12:00	6	6911	0.159	6	6911	0.277	6	6911	0.436
12:00 - 13:00	6	6911	0.299	6	6911	0.193	6	6911	0.492
13:00 - 14:00	6	6911	0.328	6	6911	0.297	6	6911	0.625
14:00 - 15:00	6	6911	0.227	6	6911	0.270	6	6911	0.497
15:00 - 16:00	6	6911	0.282	6	6911	0.362	6	6911	0.644
16:00 - 17:00	6	6911	0.280	6	6911	0.371	6	6911	0.651
17:00 - 18:00	6	6911	0.350	6	6911	0.304	6	6911	0.654
18:00 - 19:00	6	6911	0.352	6	6911	0.311	6	6911	0.663
19:00 - 20:00	6	6911	0.314	6	6911	0.251	6	6911	0.565
20:00 - 21:00	6	6911	0.205	6	6911	0.147	6	6911	0.352
21:00 - 22:00	6	6911	0.121	6	6911	0.171	6	6911	0.292
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.311			4.392			8.703

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	720 - 17624 (units: sqm)
Survey date date range:	01/01/10 - 25/11/19
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.005	6	6911	0.002	6	6911	0.007
08:00 - 09:00	6	6911	0.007	6	6911	0.007	6	6911	0.014
09:00 - 10:00	6	6911	0.000	6	6911	0.005	6	6911	0.005
10:00 - 11:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
11:00 - 12:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
12:00 - 13:00	6	6911	0.007	6	6911	0.005	6	6911	0.012
13:00 - 14:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
14:00 - 15:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
15:00 - 16:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
16:00 - 17:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
17:00 - 18:00	6	6911	0.000	6	6911	0.002	6	6911	0.002
18:00 - 19:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
19:00 - 20:00	6	6911	0.002	6	6911	0.000	6	6911	0.002
20:00 - 21:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
21:00 - 22:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.031			0.031			0.062

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.012	6	6911	0.000	6	6911	0.012
08:00 - 09:00	6	6911	0.007	6	6911	0.002	6	6911	0.009
09:00 - 10:00	6	6911	0.010	6	6911	0.000	6	6911	0.010
10:00 - 11:00	6	6911	0.005	6	6911	0.010	6	6911	0.015
11:00 - 12:00	6	6911	0.005	6	6911	0.005	6	6911	0.010
12:00 - 13:00	6	6911	0.002	6	6911	0.000	6	6911	0.002
13:00 - 14:00	6	6911	0.007	6	6911	0.002	6	6911	0.009
14:00 - 15:00	6	6911	0.007	6	6911	0.019	6	6911	0.026
15:00 - 16:00	6	6911	0.002	6	6911	0.010	6	6911	0.012
16:00 - 17:00	6	6911	0.005	6	6911	0.012	6	6911	0.017
17:00 - 18:00	6	6911	0.002	6	6911	0.005	6	6911	0.007
18:00 - 19:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
19:00 - 20:00	6	6911	0.000	6	6911	0.000	6	6911	0.000
20:00 - 21:00	6	6911	0.002	6	6911	0.002	6	6911	0.004
21:00 - 22:00	6	6911	0.002	6	6911	0.000	6	6911	0.002
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.068			0.067			0.135

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.017	6	6911	0.027	6	6911	0.044
08:00 - 09:00	6	6911	0.012	6	6911	0.014	6	6911	0.026
09:00 - 10:00	6	6911	0.017	6	6911	0.014	6	6911	0.031
10:00 - 11:00	6	6911	0.005	6	6911	0.010	6	6911	0.015
11:00 - 12:00	6	6911	0.005	6	6911	0.022	6	6911	0.027
12:00 - 13:00	6	6911	0.029	6	6911	0.039	6	6911	0.068
13:00 - 14:00	6	6911	0.041	6	6911	0.055	6	6911	0.096
14:00 - 15:00	6	6911	0.046	6	6911	0.017	6	6911	0.063
15:00 - 16:00	6	6911	0.024	6	6911	0.024	6	6911	0.048
16:00 - 17:00	6	6911	0.024	6	6911	0.017	6	6911	0.041
17:00 - 18:00	6	6911	0.017	6	6911	0.029	6	6911	0.046
18:00 - 19:00	6	6911	0.027	6	6911	0.034	6	6911	0.061
19:00 - 20:00	6	6911	0.014	6	6911	0.010	6	6911	0.024
20:00 - 21:00	6	6911	0.019	6	6911	0.029	6	6911	0.048
21:00 - 22:00	6	6911	0.012	6	6911	0.007	6	6911	0.019
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.309			0.348			0.657

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.031	6	6911	0.053	6	6911	0.084
08:00 - 09:00	6	6911	0.036	6	6911	0.277	6	6911	0.313
09:00 - 10:00	6	6911	0.017	6	6911	0.017	6	6911	0.034
10:00 - 11:00	6	6911	0.041	6	6911	0.027	6	6911	0.068
11:00 - 12:00	6	6911	0.014	6	6911	0.007	6	6911	0.021
12:00 - 13:00	6	6911	0.019	6	6911	0.022	6	6911	0.041
13:00 - 14:00	6	6911	0.014	6	6911	0.019	6	6911	0.033
14:00 - 15:00	6	6911	0.022	6	6911	0.012	6	6911	0.034
15:00 - 16:00	6	6911	0.024	6	6911	0.012	6	6911	0.036
16:00 - 17:00	6	6911	0.046	6	6911	0.010	6	6911	0.056
17:00 - 18:00	6	6911	0.068	6	6911	0.058	6	6911	0.126
18:00 - 19:00	6	6911	0.253	6	6911	0.007	6	6911	0.260
19:00 - 20:00	6	6911	0.002	6	6911	0.010	6	6911	0.012
20:00 - 21:00	6	6911	0.010	6	6911	0.002	6	6911	0.012
21:00 - 22:00	6	6911	0.002	6	6911	0.000	6	6911	0.002
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.599			0.533			1.132

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	6911	0.277	6	6911	0.543	6	6911	0.820
08:00 - 09:00	6	6911	0.449	6	6911	0.916	6	6911	1.365
09:00 - 10:00	6	6911	0.610	6	6911	0.424	6	6911	1.034
10:00 - 11:00	6	6911	0.432	6	6911	0.362	6	6911	0.794
11:00 - 12:00	6	6911	0.212	6	6911	0.352	6	6911	0.564
12:00 - 13:00	6	6911	0.400	6	6911	0.268	6	6911	0.668
13:00 - 14:00	6	6911	0.468	6	6911	0.412	6	6911	0.880
14:00 - 15:00	6	6911	0.376	6	6911	0.359	6	6911	0.735
15:00 - 16:00	6	6911	0.403	6	6911	0.490	6	6911	0.893
16:00 - 17:00	6	6911	0.461	6	6911	0.494	6	6911	0.955
17:00 - 18:00	6	6911	0.581	6	6911	0.461	6	6911	1.042
18:00 - 19:00	6	6911	0.714	6	6911	0.468	6	6911	1.182
19:00 - 20:00	6	6911	0.429	6	6911	0.371	6	6911	0.800
20:00 - 21:00	6	6911	0.285	6	6911	0.195	6	6911	0.480
21:00 - 22:00	6	6911	0.198	6	6911	0.203	6	6911	0.401
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.295			6.318			12.613

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-733701-211001-1021

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : B - BUSINESS PARK
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	2 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
	WK	WARWICKSHIRE	1 days
10	WALES		
	CF	CARDIFF	3 days
11	SCOTLAND		
	AD	ABERDEEN CITY	1 days
	FA	FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1500 to 142687 (units: sqm)
Range Selected by User: 975 to 142687 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 21/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	3 days
Thursday	2 days
Friday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	12 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	12

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	5
Commercial Zone	3
Development Zone	1
Out of Town	1
No Sub Category	2

APPENDIX 9.5
TRICS: OFFICES

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known	12 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	6 days
15,001 to 20,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	6 days
250,001 to 500,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	6 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	11 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	12 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AD-02-B-02 BUSINESS PARK ABERDEEN CITY
CRAIGSHAW DRIVE
ABERDEEN
EAST TULLOS IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 7925 sqm
Survey date: THURSDAY 21/11/19 Survey Type: MANUAL

2 CA-02-B-03 SCIENCE PARK CAMBRIDGESHIRE
MILTON ROAD
CAMBRIDGE

Edge of Town
No Sub Category
Total Gross floor area: 142687 sqm
Survey date: FRIDAY 06/10/17 Survey Type: MANUAL

3 CF-02-B-04 BUSINESS PARK CARDIFF
RHYMNEY RIVER BRIDGE RD
CARDIFF

Edge of Town
Development Zone
Total Gross floor area: 5300 sqm
Survey date: FRIDAY 05/05/17 Survey Type: MANUAL

4 CF-02-B-06 BUSINESS PARK CARDIFF
MALTHOUSE AVENUE
CARDIFF
PONTPRENNAU
Edge of Town
No Sub Category
Total Gross floor area: 1642 sqm
Survey date: MONDAY 12/03/18 Survey Type: MANUAL

5 CF-02-B-07 BUSINESS PARK CARDIFF
MALTHOUSE AVENUE
CARDIFF
PONTPRENNAU
Edge of Town
Commercial Zone
Total Gross floor area: 15930 sqm
Survey date: TUESDAY 13/03/18 Survey Type: MANUAL

6 DV-02-B-01 BUSINESS PARK DEVON
MANATON CLOSE
EXETER
MATFORD BUSINESS PARK
Edge of Town
Commercial Zone
Total Gross floor area: 1500 sqm
Survey date: WEDNESDAY 05/07/17 Survey Type: MANUAL

7 EX-02-B-01 BUSINESS PARK ESSEX
BRUNEL COURT
COLCHESTER
SEVERALLS INDUSTRIAL PK
Edge of Town
Industrial Zone
Total Gross floor area: 2900 sqm
Survey date: FRIDAY 18/05/18 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	EX-02-B-02	BUSINESS PARK		ESSEX
	WYNCOLLS ROAD			
	COLCHESTER			
	SEVERALLS INDUSTRIAL PK			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		4083 sqm	
	Survey date: FRIDAY		*18/05/18*	*Survey Type: MANUAL*
9	FA-02-B-02	BUSINESS PARK		FALKIRK
	CALLENDAR BOULEVARD			
	FALKIRK			
	CALLENDAR PARK			
	Edge of Town			
	Commercial Zone			
	Total Gross floor area:		16000 sqm	
	Survey date: FRIDAY		*31/05/13*	*Survey Type: MANUAL*
10	LN-02-B-02	BUSINESS PARK		LINCOLNSHIRE
	CARDINAL CLOSE			
	LINCOLN			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		5000 sqm	
	Survey date: THURSDAY		*25/06/15*	*Survey Type: MANUAL*
11	ST-02-B-04	BUSINESS PARK		STAFFORDSHIRE
	STONE ROAD			
	STAFFORD			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		20760 sqm	
	Survey date: WEDNESDAY		*22/11/17*	*Survey Type: MANUAL*
12	WK-02-B-01	BUSINESS/TECH. PARK		WARWICKSHIRE
	GALLOWS HILL			
	WARWICK			
	Edge of Town			
	Out of Town			
	Total Gross floor area:		56520 sqm	
	Survey date: WEDNESDAY		*25/09/19*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	23354	0.825	12	23354	0.091	12	23354	0.916
08:00 - 09:00	12	23354	1.182	12	23354	0.138	12	23354	1.320
09:00 - 10:00	12	23354	0.499	12	23354	0.140	12	23354	0.639
10:00 - 11:00	12	23354	0.166	12	23354	0.119	12	23354	0.285
11:00 - 12:00	12	23354	0.157	12	23354	0.163	12	23354	0.320
12:00 - 13:00	12	23354	0.211	12	23354	0.285	12	23354	0.496
13:00 - 14:00	12	23354	0.245	12	23354	0.181	12	23354	0.426
14:00 - 15:00	12	23354	0.130	12	23354	0.212	12	23354	0.342
15:00 - 16:00	12	23354	0.106	12	23354	0.420	12	23354	0.526
16:00 - 17:00	12	23354	0.103	12	23354	0.717	12	23354	0.820
17:00 - 18:00	12	23354	0.079	12	23354	0.843	12	23354	0.922
18:00 - 19:00	12	23354	0.056	12	23354	0.558	12	23354	0.614
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.759			3.867			7.626

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	1500 - 142687 (units: sqm)
Survey date date range:	01/01/13 - 21/11/19
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	23354	0.050	12	23354	0.007	12	23354	0.057
08:00 - 09:00	12	23354	0.118	12	23354	0.012	12	23354	0.130
09:00 - 10:00	12	23354	0.074	12	23354	0.013	12	23354	0.087
10:00 - 11:00	12	23354	0.031	12	23354	0.013	12	23354	0.044
11:00 - 12:00	12	23354	0.017	12	23354	0.012	12	23354	0.029
12:00 - 13:00	12	23354	0.021	12	23354	0.023	12	23354	0.044
13:00 - 14:00	12	23354	0.023	12	23354	0.020	12	23354	0.043
14:00 - 15:00	12	23354	0.013	12	23354	0.019	12	23354	0.032
15:00 - 16:00	12	23354	0.019	12	23354	0.034	12	23354	0.053
16:00 - 17:00	12	23354	0.018	12	23354	0.066	12	23354	0.084
17:00 - 18:00	12	23354	0.016	12	23354	0.095	12	23354	0.111
18:00 - 19:00	12	23354	0.014	12	23354	0.057	12	23354	0.071
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.414			0.371			0.785

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	23354	0.052	12	23354	0.009	12	23354	0.061
08:00 - 09:00	12	23354	0.102	12	23354	0.023	12	23354	0.125
09:00 - 10:00	12	23354	0.058	12	23354	0.021	12	23354	0.079
10:00 - 11:00	12	23354	0.033	12	23354	0.023	12	23354	0.056
11:00 - 12:00	12	23354	0.026	12	23354	0.027	12	23354	0.053
12:00 - 13:00	12	23354	0.120	12	23354	0.147	12	23354	0.267
13:00 - 14:00	12	23354	0.120	12	23354	0.104	12	23354	0.224
14:00 - 15:00	12	23354	0.039	12	23354	0.030	12	23354	0.069
15:00 - 16:00	12	23354	0.026	12	23354	0.037	12	23354	0.063
16:00 - 17:00	12	23354	0.029	12	23354	0.076	12	23354	0.105
17:00 - 18:00	12	23354	0.026	12	23354	0.108	12	23354	0.134
18:00 - 19:00	12	23354	0.009	12	23354	0.042	12	23354	0.051
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.640			0.647			1.287

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	23354	0.035	12	23354	0.002	12	23354	0.037
08:00 - 09:00	12	23354	0.093	12	23354	0.032	12	23354	0.125
09:00 - 10:00	12	23354	0.047	12	23354	0.006	12	23354	0.053
10:00 - 11:00	12	23354	0.015	12	23354	0.004	12	23354	0.019
11:00 - 12:00	12	23354	0.009	12	23354	0.014	12	23354	0.023
12:00 - 13:00	12	23354	0.017	12	23354	0.012	12	23354	0.029
13:00 - 14:00	12	23354	0.022	12	23354	0.013	12	23354	0.035
14:00 - 15:00	12	23354	0.011	12	23354	0.012	12	23354	0.023
15:00 - 16:00	12	23354	0.004	12	23354	0.019	12	23354	0.023
16:00 - 17:00	12	23354	0.005	12	23354	0.047	12	23354	0.052
17:00 - 18:00	12	23354	0.006	12	23354	0.069	12	23354	0.075
18:00 - 19:00	12	23354	0.004	12	23354	0.022	12	23354	0.026
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.268			0.252			0.520

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	23354	1.058	12	23354	0.121	12	23354	1.179
08:00 - 09:00	12	23354	1.639	12	23354	0.231	12	23354	1.870
09:00 - 10:00	12	23354	0.765	12	23354	0.209	12	23354	0.974
10:00 - 11:00	12	23354	0.297	12	23354	0.186	12	23354	0.483
11:00 - 12:00	12	23354	0.265	12	23354	0.254	12	23354	0.519
12:00 - 13:00	12	23354	0.424	12	23354	0.541	12	23354	0.965
13:00 - 14:00	12	23354	0.472	12	23354	0.365	12	23354	0.837
14:00 - 15:00	12	23354	0.233	12	23354	0.330	12	23354	0.563
15:00 - 16:00	12	23354	0.199	12	23354	0.581	12	23354	0.780
16:00 - 17:00	12	23354	0.192	12	23354	1.041	12	23354	1.233
17:00 - 18:00	12	23354	0.151	12	23354	1.251	12	23354	1.402
18:00 - 19:00	12	23354	0.100	12	23354	0.764	12	23354	0.864
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.795			5.874			11.669

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-746001-211027-1003

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : C - PUB/RESTAURANT
TOTAL VEHICLES

Selected regions and areas:

05	EAST MIDLANDS		
	NR	NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 525 to 720 (units: sqm)
Range Selected by User: 500 to 2384 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 11/06/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	1 days
Wednesday	1 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Commercial Zone	1
Residential Zone	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

APPENDIX 9.6
TRICS: PUB/RESTAURANT

Secondary Filtering selection:

Use Class:

Sui Generis	3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	3 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	3 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	GM-06-C-04 HELSMAN LANE ROCHDALE	HUNGRY HORSE		GREATER MANCHESTER
	Edge of Town Residential Zone Total Gross floor area:		525 sqm	
	Survey date: TUESDAY		*20/10/15*	*Survey Type: MANUAL*
2	NR-06-C-01 BEDFORD ROAD NORTHAMPTON BRACKMILLS Edge of Town Commercial Zone	PUB/RESTAURANT		NORTHAMPTONSHIRE
	Total Gross floor area:		620 sqm	
	Survey date: FRIDAY		*11/11/16*	*Survey Type: MANUAL*
3	ST-06-C-01 STONE ROAD STOKE-ON-TRENT TRENTHAM Edge of Town Residential Zone	HARVESTER		STAFFORDSHIRE
	Total Gross floor area:		720 sqm	
	Survey date: WEDNESDAY		*23/10/13*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	3	622	0.375	3	622	0.322	3	622	0.697
11:00 - 12:00	3	622	1.823	3	622	0.590	3	622	2.413
12:00 - 13:00	3	622	3.753	3	622	1.233	3	622	4.986
13:00 - 14:00	3	622	2.413	3	622	2.895	3	622	5.308
14:00 - 15:00	3	622	1.233	3	622	2.735	3	622	3.968
15:00 - 16:00	3	622	1.072	3	622	1.448	3	622	2.520
16:00 - 17:00	3	622	3.217	3	622	1.180	3	622	4.397
17:00 - 18:00	3	622	4.987	3	622	3.003	3	622	7.990
18:00 - 19:00	3	622	3.378	3	622	3.110	3	622	6.488
19:00 - 20:00	3	622	3.110	3	622	4.129	3	622	7.239
20:00 - 21:00	3	622	1.555	3	622	3.485	3	622	5.040
21:00 - 22:00	3	622	1.340	3	622	2.038	3	622	3.378
22:00 - 23:00	3	622	0.536	3	622	1.501	3	622	2.037
23:00 - 24:00	2	623	0.080	2	623	0.241	2	623	0.321
Total Rates:			28.872			27.910			56.782

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	525 - 720 (units: sqm)
Survey date date range:	01/01/13 - 11/06/19
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-733701-211026-1002

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : I - ART GALLERIES/MUSEUMS/EXHIBITIONS
TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	1 days
09	NORTH		
	DH	DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	Gross floor area
Actual Range:	1800 to 11200 (units: sqm)
Range Selected by User:	200 to 22662 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 23/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	1 days
Wednesday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Out of Town	1
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

n/a	1 days
F1(c)	1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

APPENDIX 9.7
TRICS: ART GALLERY/
MUSEUMS/EXHIBITIONS

Secondary Filtering selection (Cont.):

Population within 500m Range:
All Surveys Included
Population within 1 mile:

1,001 to 5,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Not Known	1 days
No	1 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	2 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 DC-07-I-01 TANK MUSEUM DORSET
BOVINGTON LANE
BOVINGTON CAMP

Edge of Town
No Sub Category
Total Gross floor area: 11200 sqm
Survey date: WEDNESDAY 30/08/00 Survey Type: MANUAL

2 DH-07-I-01 MUSEUM / ART GALLERY DURHAM
FRAMWELLGATE PETH
DURHAM
AYKLEY HEADS
Edge of Town
Out of Town
Total Gross floor area: 1800 sqm
Survey date: TUESDAY 10/06/03 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	2	6500	0.423	2	6500	0.054	2	6500	0.477
10:00 - 11:00	2	6500	0.785	2	6500	0.192	2	6500	0.977
11:00 - 12:00	2	6500	0.785	2	6500	0.308	2	6500	1.093
12:00 - 13:00	2	6500	0.492	2	6500	0.385	2	6500	0.877
13:00 - 14:00	2	6500	0.577	2	6500	0.608	2	6500	1.185
14:00 - 15:00	2	6500	0.385	2	6500	0.577	2	6500	0.962
15:00 - 16:00	2	6500	0.208	2	6500	0.838	2	6500	1.046
16:00 - 17:00	2	6500	0.115	2	6500	0.554	2	6500	0.669
17:00 - 18:00	2	6500	0.038	2	6500	0.385	2	6500	0.423
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.808			3.901			7.709

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

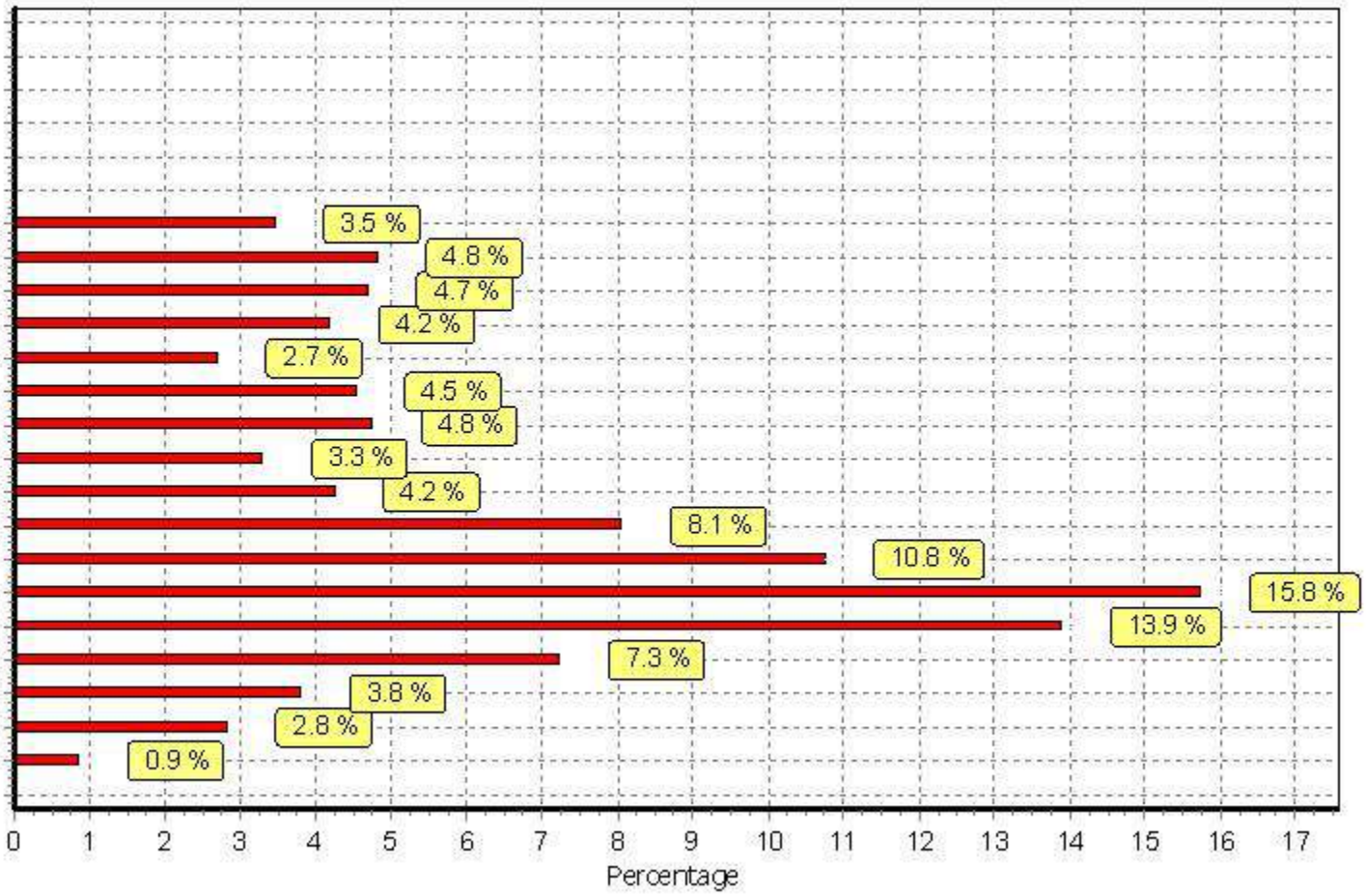
Trip rate parameter range selected:	1800 - 11200 (units: sqm)
Survey date date range:	01/01/00 - 23/11/19
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

West Sussex County Council West Street Chichester Licence No: 746001

TRIP RATE GRAPH - ARRIVALS 07 - LEISURE C - LEISURE CENTRE TOTAL VEHICLES

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.630	3.5
07:00-08:00	0.876	4.8
08:00-09:00	0.850	4.7
09:00-10:00	0.757	4.2
10:00-11:00	0.491	2.7
11:00-12:00	0.823	4.5
12:00-13:00	0.863	4.8
13:00-14:00	0.597	3.3
14:00-15:00	0.770	4.2
15:00-16:00	1.460	8.1
16:00-17:00	1.952	10.8
17:00-18:00	2.854	15.8
18:00-19:00	2.523	13.9
19:00-20:00	1.314	7.3
20:00-21:00	0.690	3.8
21:00-22:00	0.511	2.8
22:00-23:00	0.158	0.9
23:00-24:00		

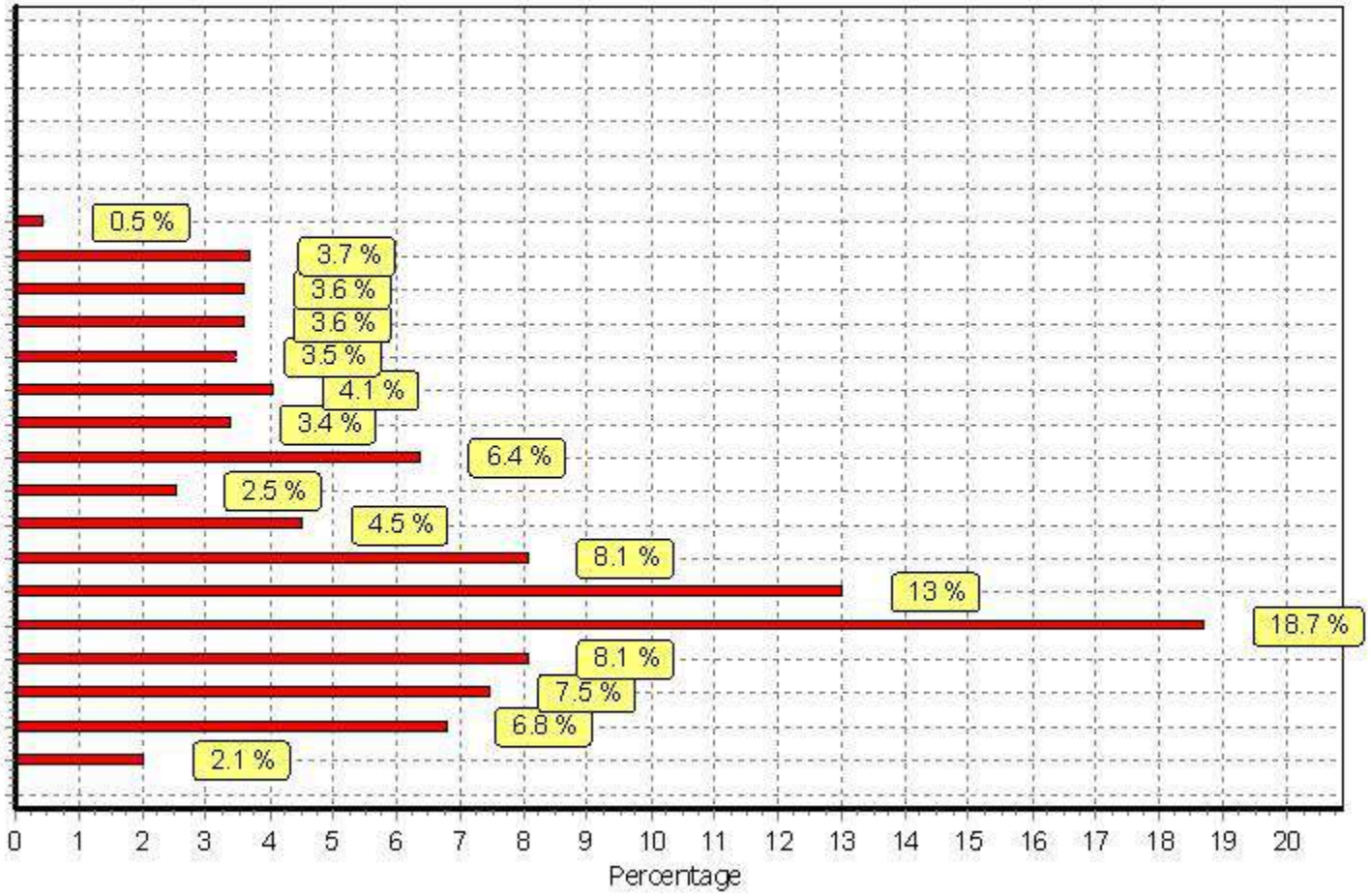


APPENDIX 9.8
TRICS: LEISURE CENTRE
(DAILY PROFILE)

West Sussex County Council West Street Chichester Licence No: 746001

TRIP RATE GRAPH - DEPARTURES 07 - LEISURE C - LEISURE CENTRE TOTAL VEHICLES

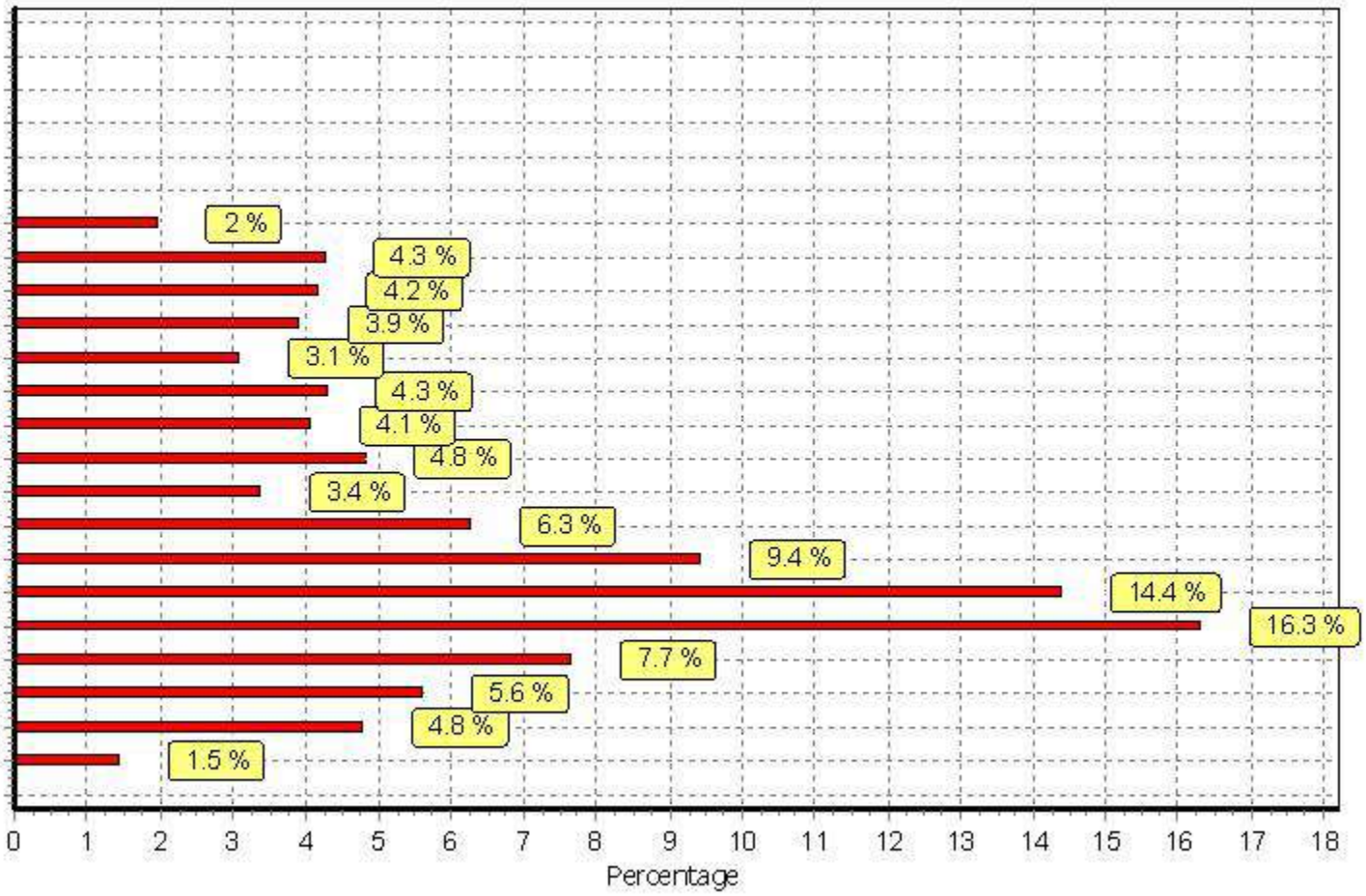
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.083	0.5
07:00-08:00	0.664	3.7
08:00-09:00	0.651	3.6
09:00-10:00	0.651	3.6
10:00-11:00	0.624	3.5
11:00-12:00	0.730	4.1
12:00-13:00	0.611	3.4
13:00-14:00	1.142	6.4
14:00-15:00	0.451	2.5
15:00-16:00	0.810	4.5
16:00-17:00	1.447	8.1
17:00-18:00	2.337	13.0
18:00-19:00	3.359	18.7
19:00-20:00	1.447	8.1
20:00-21:00	1.341	7.5
21:00-22:00	1.217	6.8
22:00-23:00	0.368	2.1
23:00-24:00		



West Sussex County Council West Street Chichester Licence No: 746001

TRIP RATE GRAPH - TOTALS 07 - LEISURE C - LEISURE CENTRE TOTAL VEHICLES

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.713	2.0
07:00-08:00	1.540	4.3
08:00-09:00	1.501	4.2
09:00-10:00	1.408	3.9
10:00-11:00	1.115	3.1
11:00-12:00	1.553	4.3
12:00-13:00	1.474	4.1
13:00-14:00	1.739	4.8
14:00-15:00	1.221	3.4
15:00-16:00	2.270	6.3
16:00-17:00	3.399	9.4
17:00-18:00	5.191	14.4
18:00-19:00	5.882	16.3
19:00-20:00	2.761	7.7
20:00-21:00	2.031	5.6
21:00-22:00	1.728	4.8
22:00-23:00	0.526	1.5
23:00-24:00		

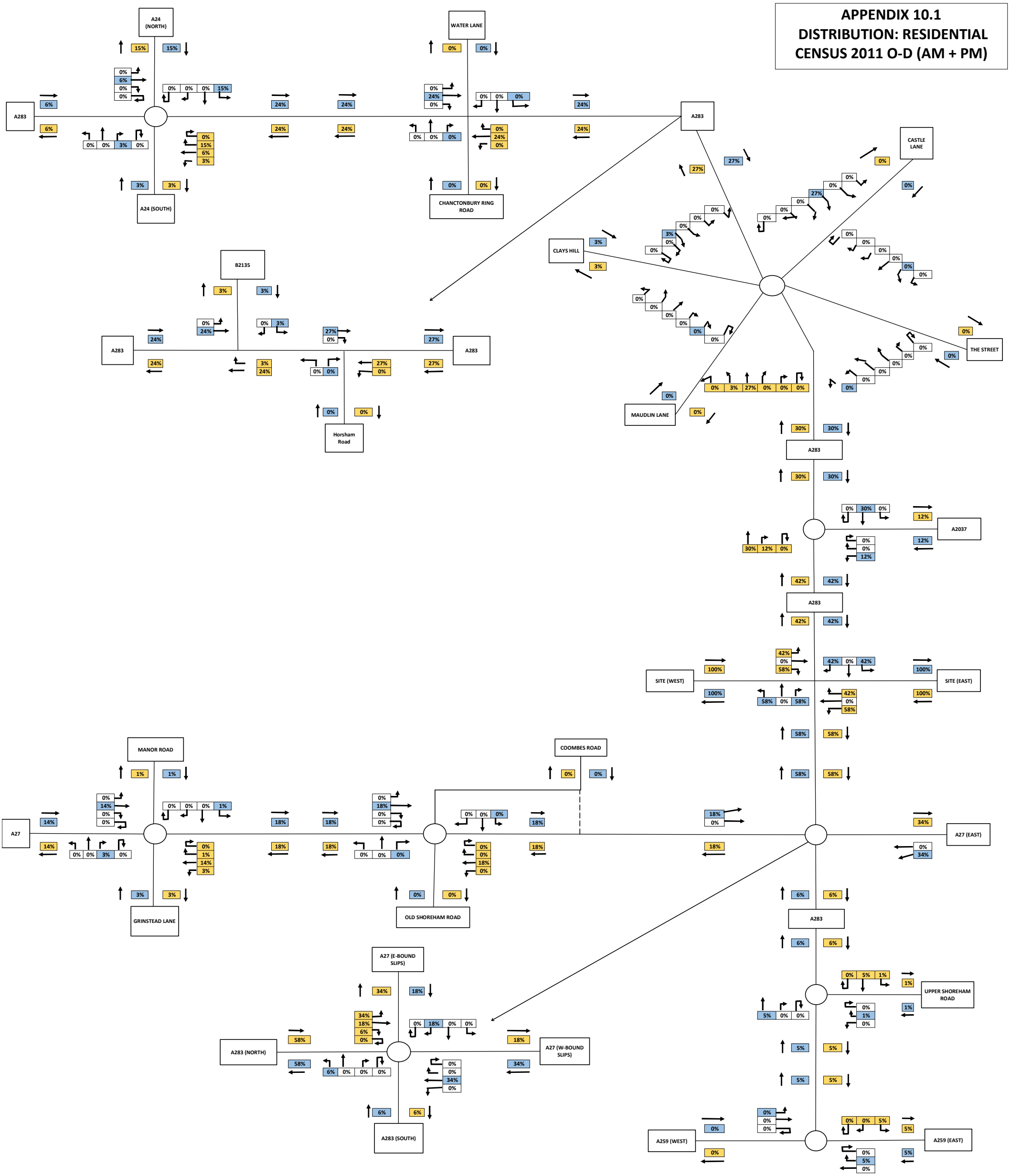


APPENDIX 10.0

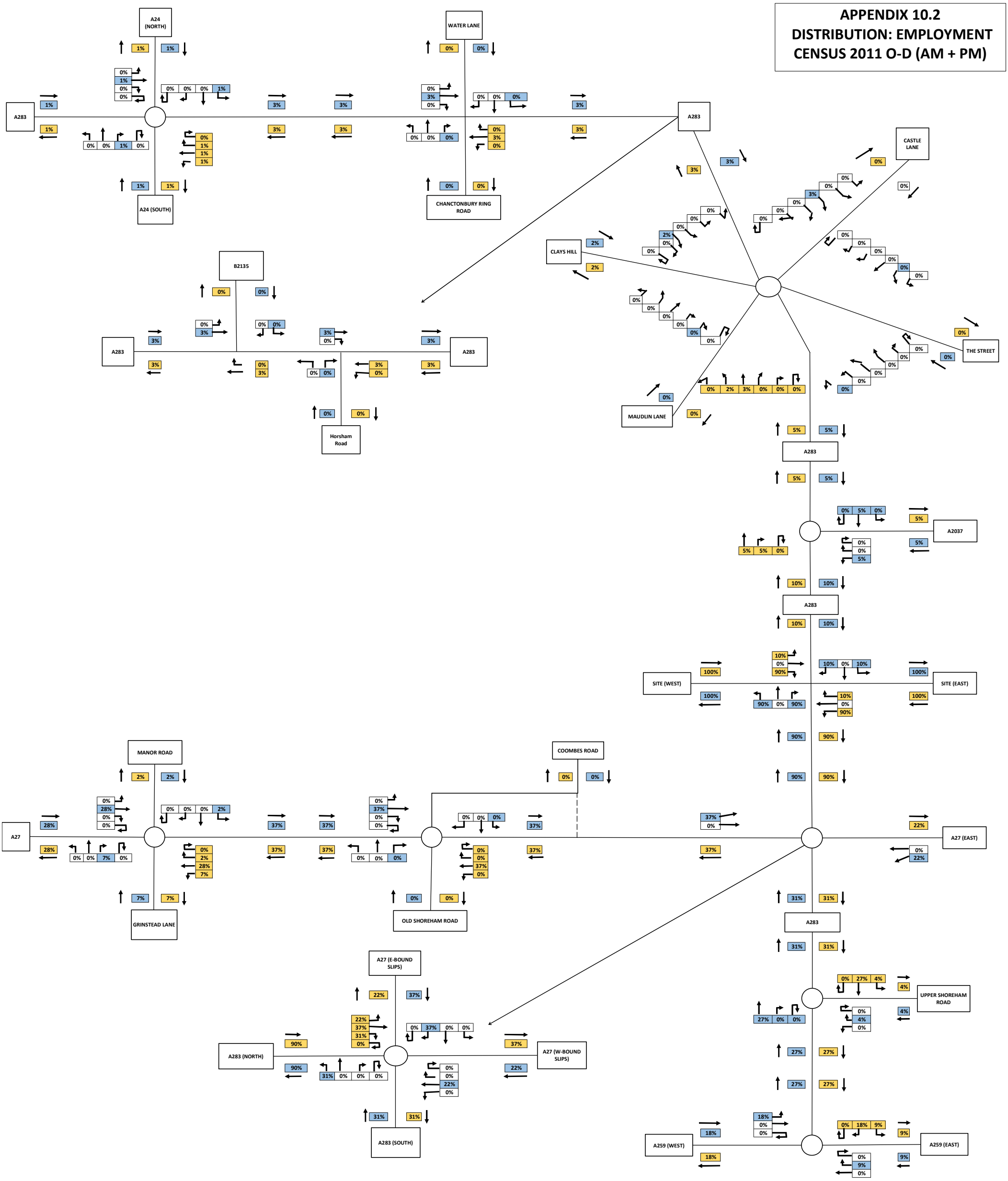
PROPOSED TRIP DISTRIBUTION

10.1 Census O-D – Residential
10.2 Census O-D – Employment
10.3 Mobile Network Data – Desired Home-Based, Residential (AM Peak Hour)
10.4 Mobile Network Data – Desired Home-Based, Residential (PM Peak Hour)
10.5 Mobile Network Data – Desired Other Trips, Employment (AM Peak Hour)
10.6 Mobile Network Data – Desired Other Trips, Employment (PM Peak Hour)
10.7 Mobile Network Data – Desired Other Trips, Other (AM Peak Hour)
10.8 Mobile Network Data – Desired Other Trips, Other (PM Peak Hour)

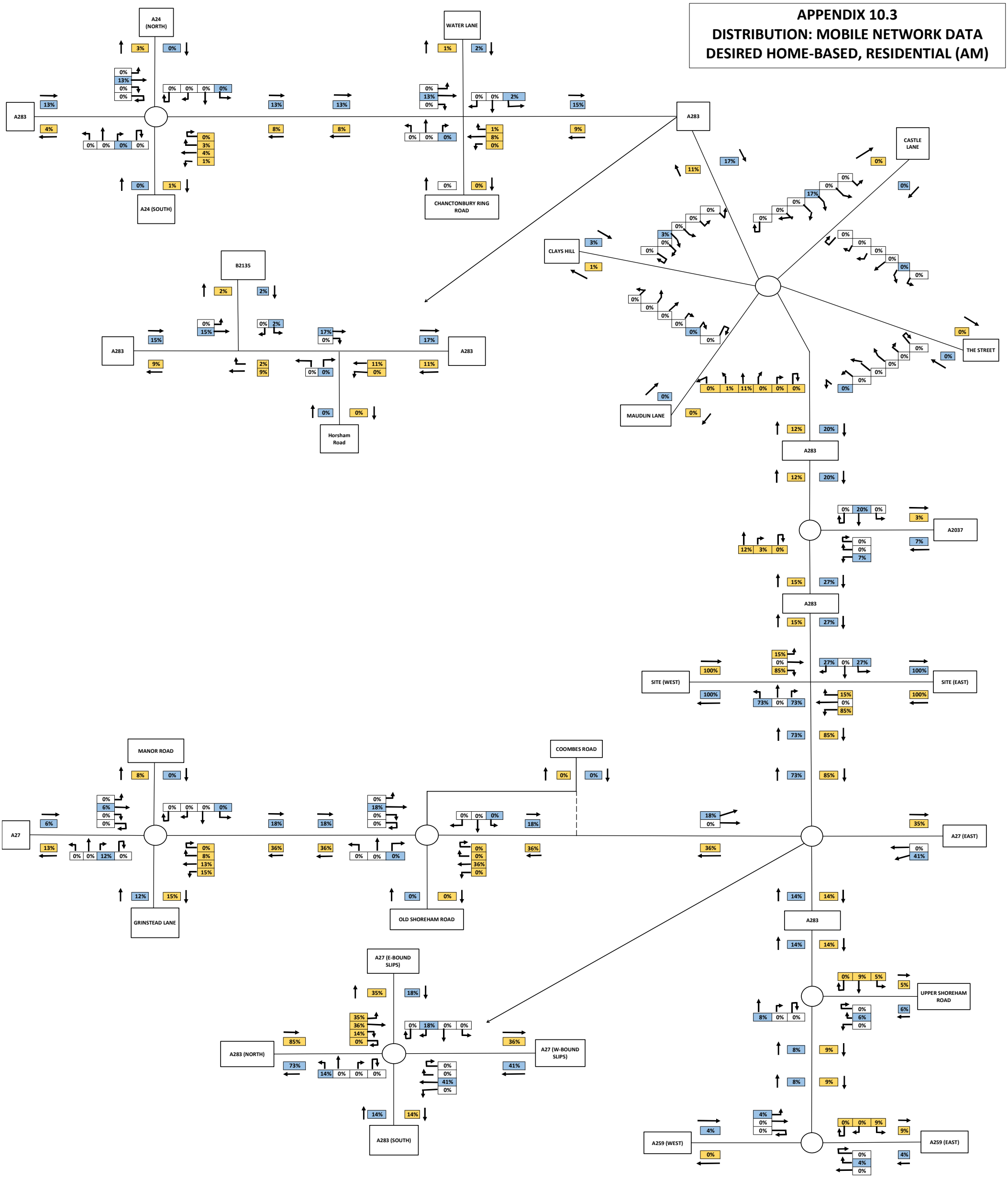
APPENDIX 10.1
DISTRIBUTION: RESIDENTIAL
CENSUS 2011 O-D (AM + PM)



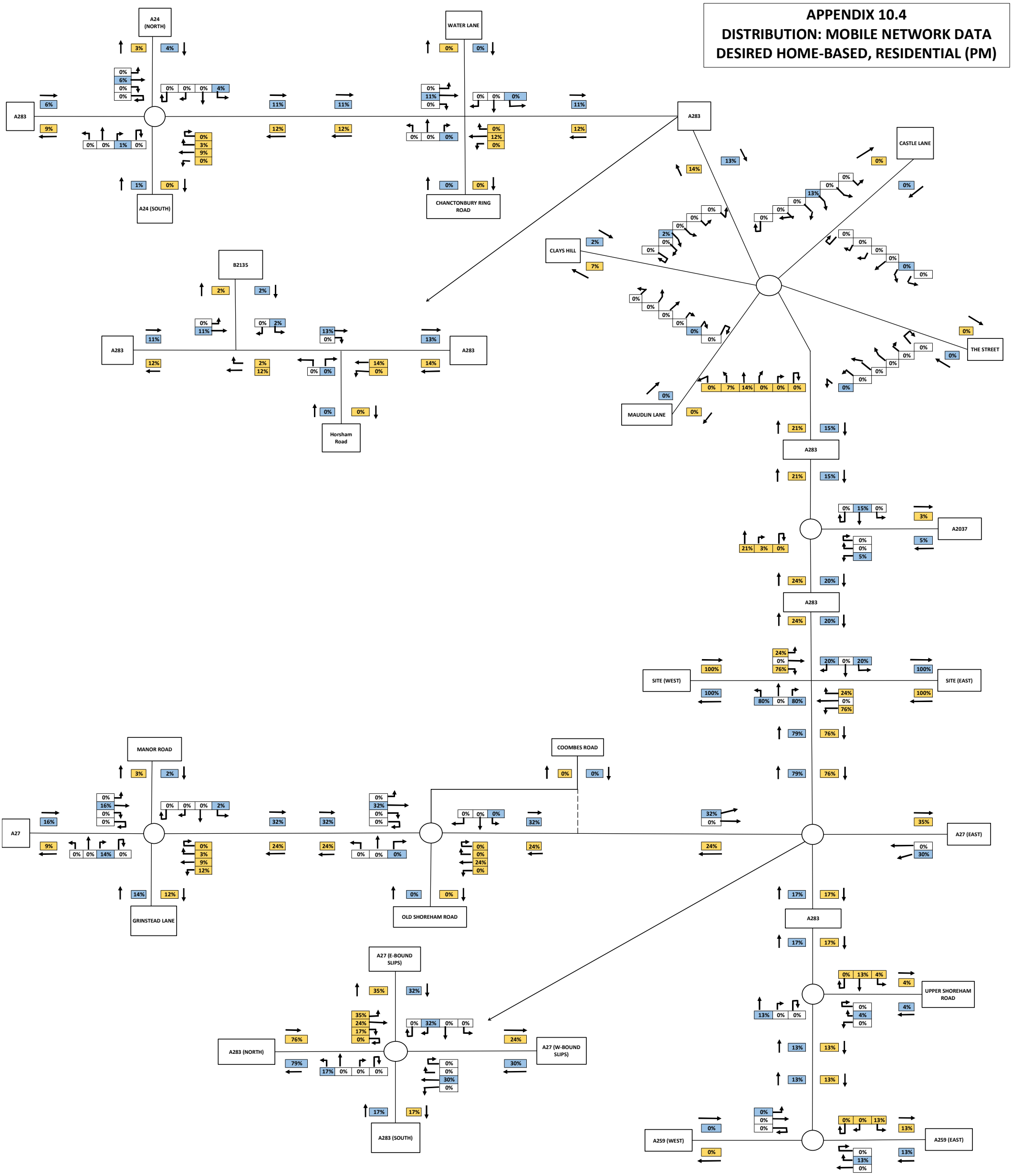
APPENDIX 10.2
DISTRIBUTION: EMPLOYMENT
CENSUS 2011 O-D (AM + PM)



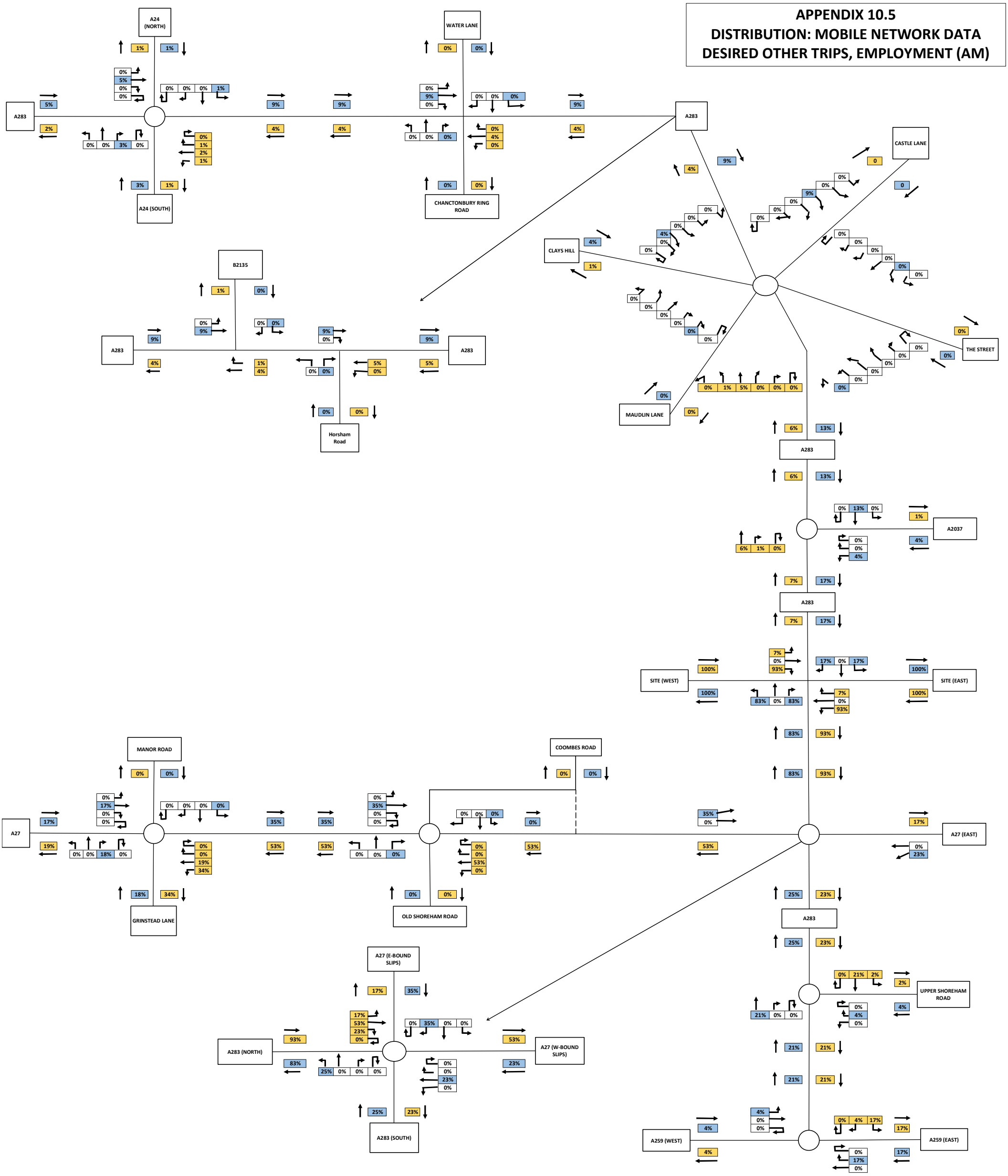
APPENDIX 10.3
DISTRIBUTION: MOBILE NETWORK DATA
DESIRED HOME-BASED, RESIDENTIAL (AM)



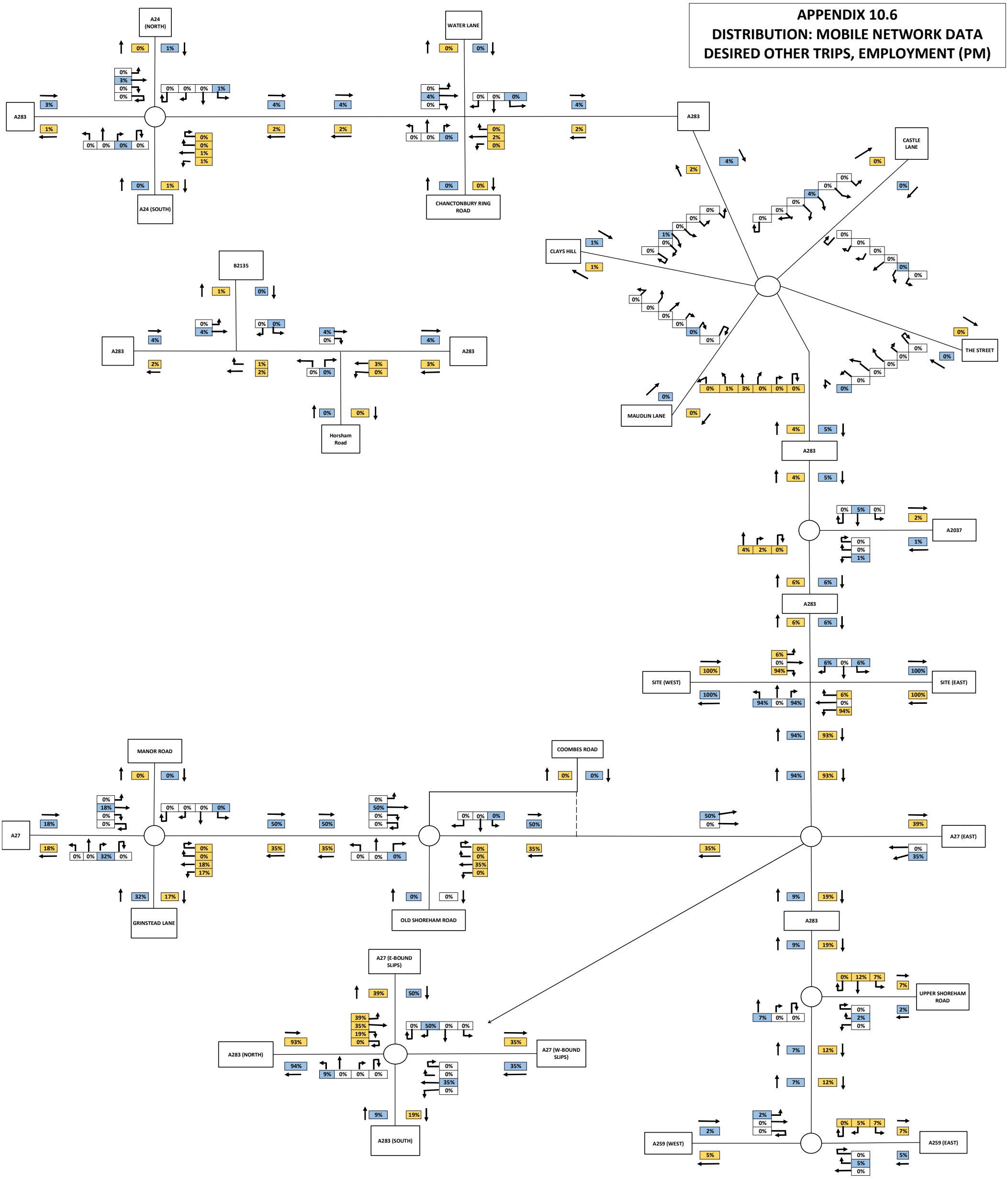
APPENDIX 10.4
DISTRIBUTION: MOBILE NETWORK DATA
DESIRED HOME-BASED, RESIDENTIAL (PM)



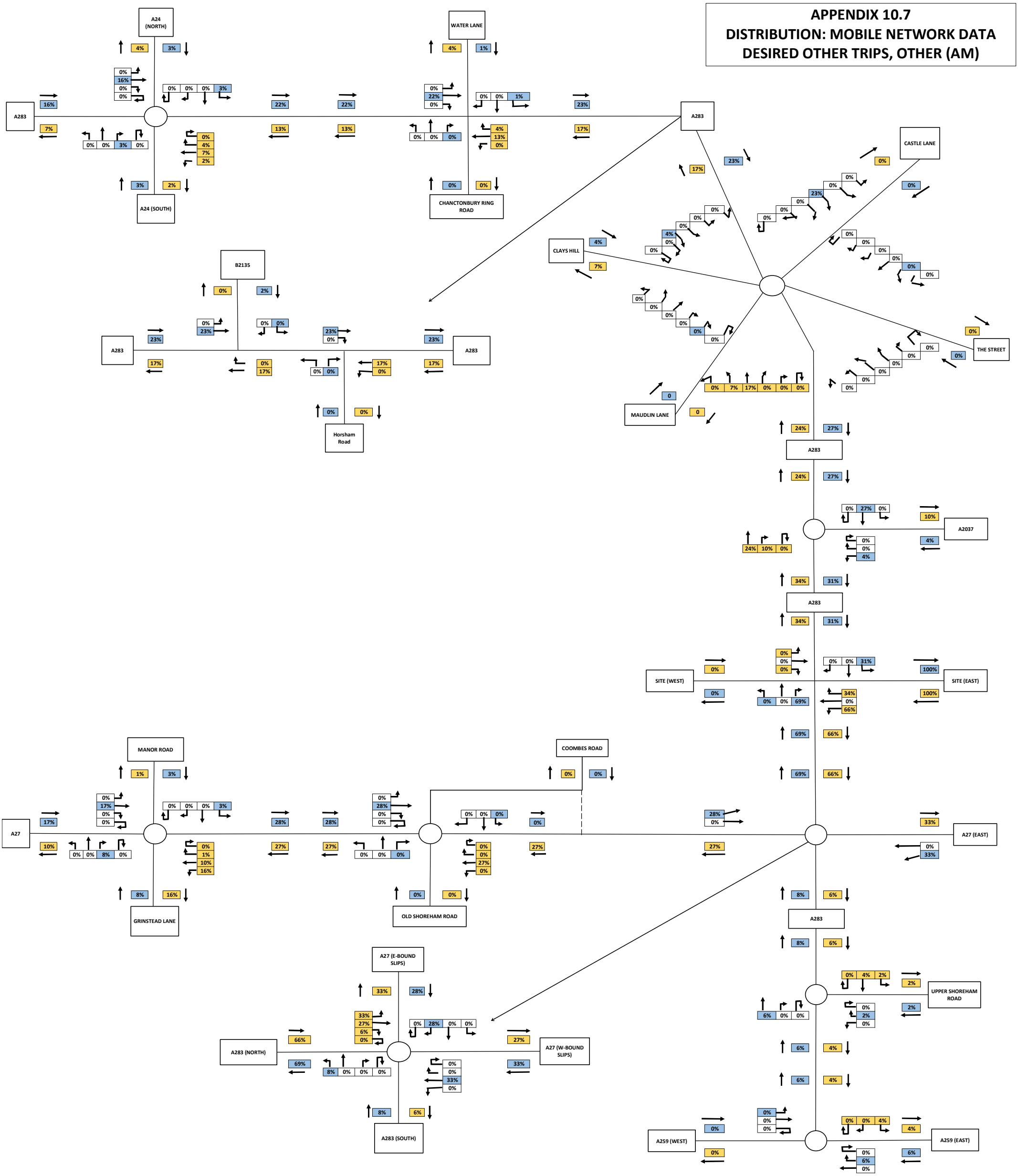
APPENDIX 10.5
DISTRIBUTION: MOBILE NETWORK DATA
DESIRED OTHER TRIPS, EMPLOYMENT (AM)



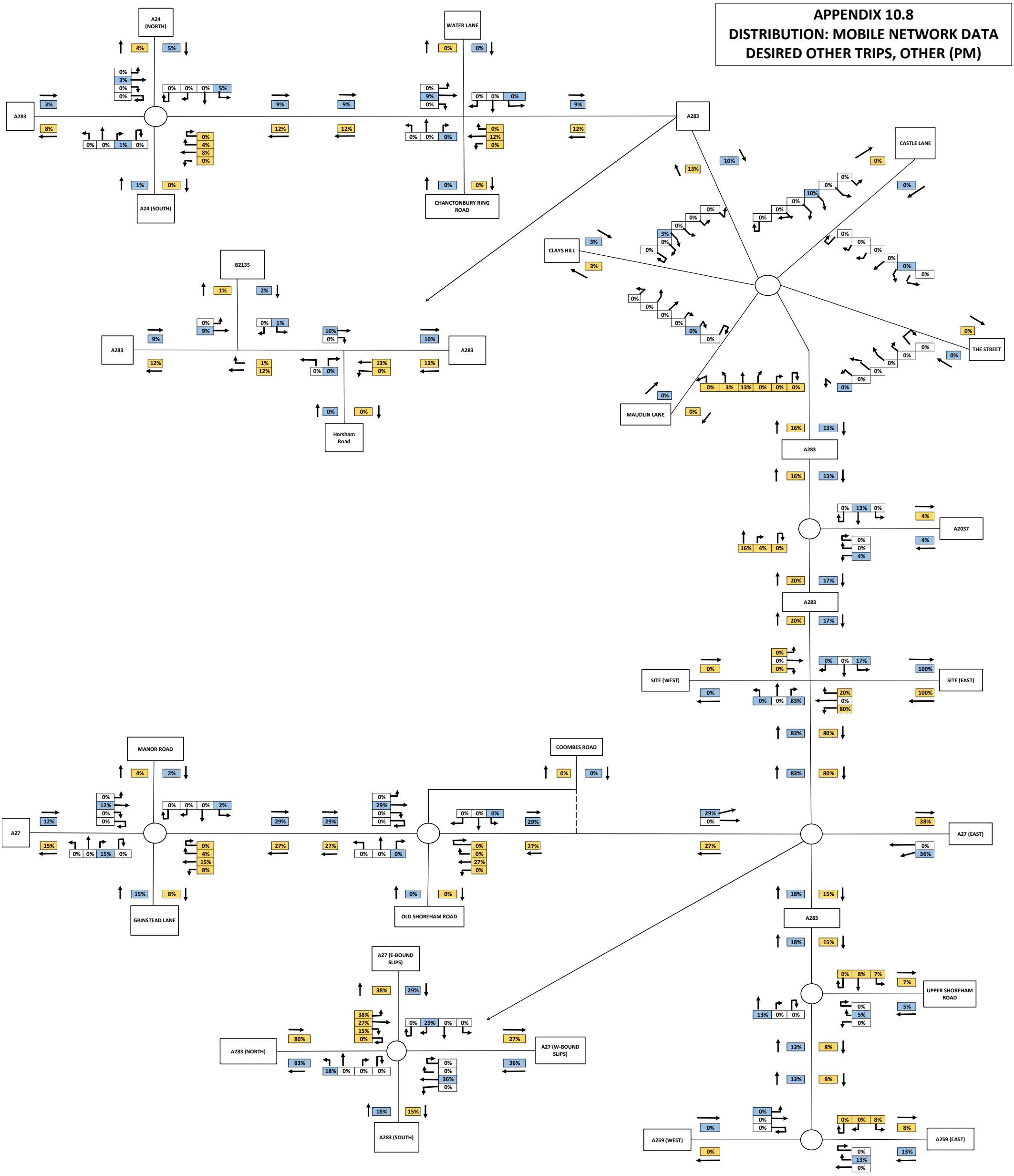
APPENDIX 10.6
DISTRIBUTION: MOBILE NETWORK DATA
DESIRED OTHER TRIPS, EMPLOYMENT (PM)



APPENDIX 10.7
DISTRIBUTION: MOBILE NETWORK DATA
DESIRED OTHER TRIPS, OTHER (AM)



APPENDIX 10.8
DISTRIBUTION: MOBILE NETWORK DATA
DESIRED OTHER TRIPS, OTHER (PM)

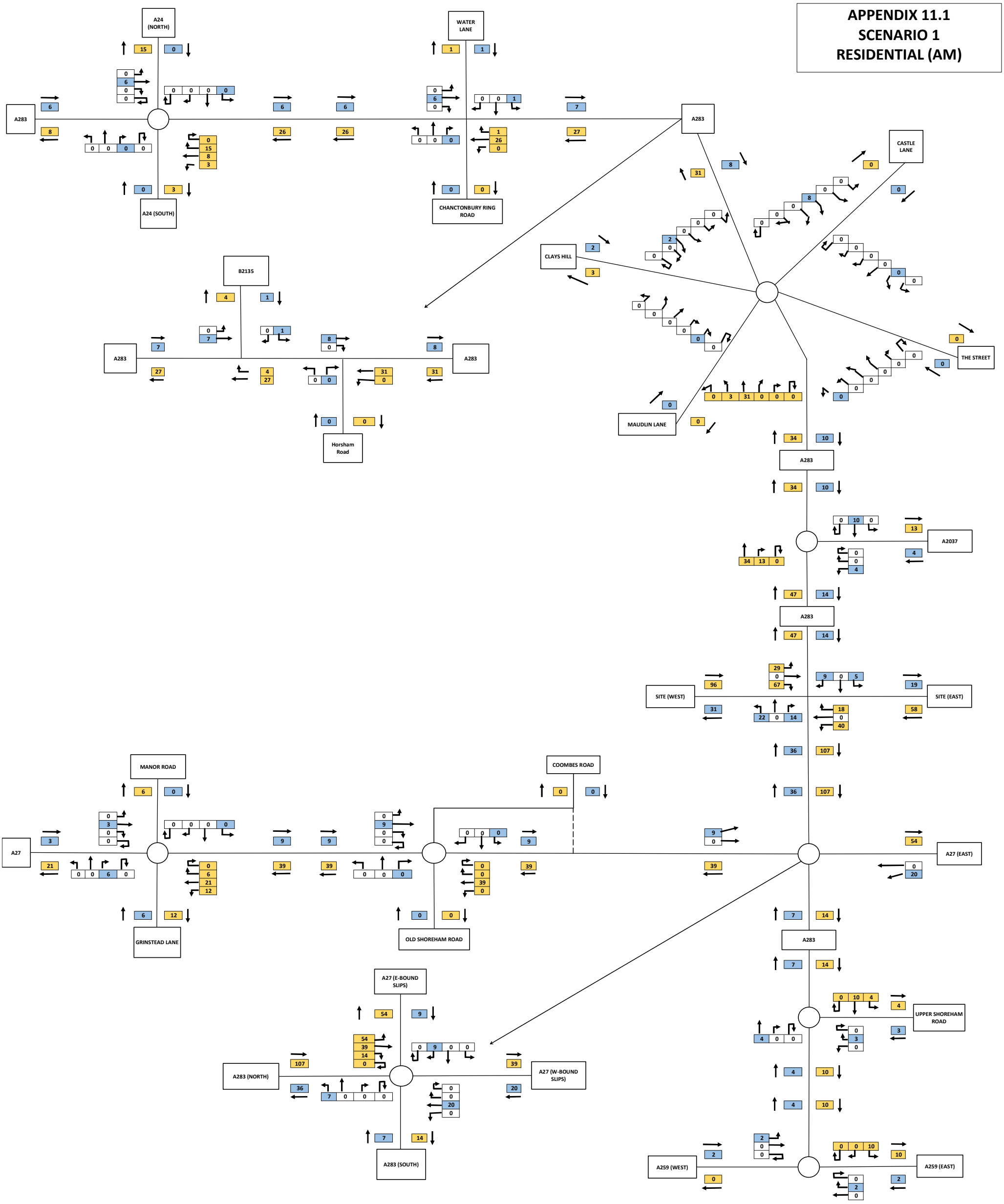


APPENDIX 11.0

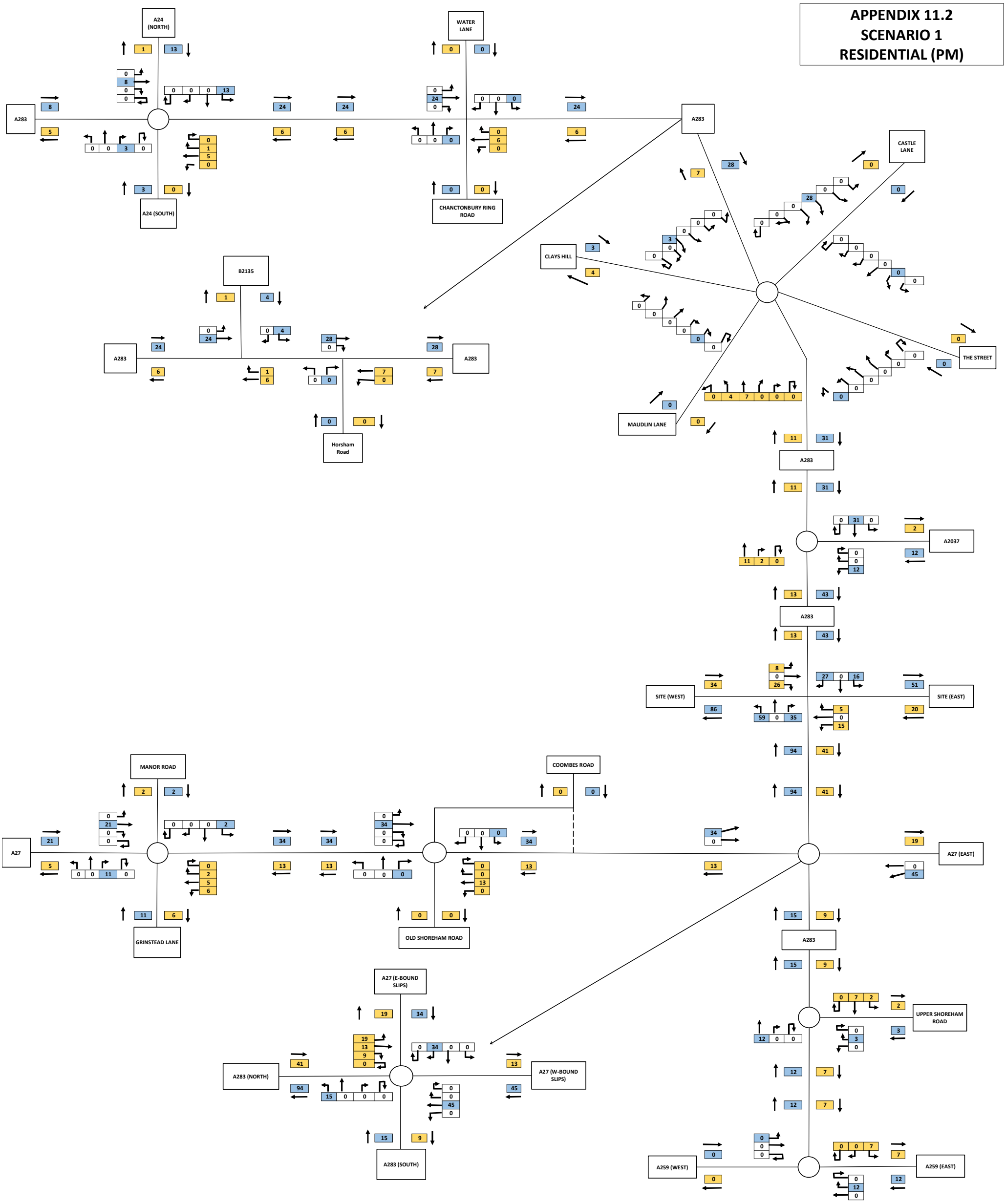
PROPOSED TRAFFIC FLOWS – SEPARATE

11.1 Traffic Flows: Scenario 1 Residential (AM Peak Hour)
11.2 Traffic Flows: Scenario 1 Residential (PM Peak Hour)
11.3 Traffic Flows: Scenario 2 Residential (AM Peak Hour)
11.4 Traffic Flows: Scenario 2 Residential (PM Peak Hour)
11.5 Traffic Flows: Scenario 3 Residential (AM Peak Hour)
11.6 Traffic Flows: Scenario 3 Residential (PM Peak Hour)
11.7 Traffic Flows: Scenario 4 Residential (AM Peak Hour)
11.8 Traffic Flows: Scenario 4 Residential (PM Peak Hour)
11.9 Traffic Flows: Scenario 1 Employment (AM Peak Hour)
11.10 Traffic Flows: Scenario 1 Employment (PM Peak Hour)
11.11 Traffic Flows: Scenario 2 Employment (AM Peak Hour)
11.12 Traffic Flows: Scenario 2 Employment (PM Peak Hour)
11.13 Traffic Flows: Scenario 3 Employment (AM Peak Hour)
11.14 Traffic Flows: Scenario 3 Employment (PM Peak Hour)
11.15 Traffic Flows: Scenario 4 Employment (AM Peak Hour)
11.16 Traffic Flows: Scenario 4 Employment (PM Peak Hour)
11.17 Traffic Flows: Scenario 1, 2, 3 and 4 Hotel (AM Peak Hour)
11.18 Traffic Flows: Scenario 1, 2, 3 and 4 Hotel (PM Peak Hour)
11.19 Traffic Flows: Scenario 4 Offices (AM Peak Hour)
11.20 Traffic Flows: Scenario 4 Offices (PM Peak Hour)
11.21 Traffic Flows: Scenario 3 and 4 Pub/Restaurant (PM Peak Hour)
11.22 Traffic Flows: Scenario 1 Learning/Non-Residential Institution (PM Peak Hour)
11.23 Traffic Flows: Scenario 2 Learning/Non-Residential Institution (PM Peak Hour)
11.24 Traffic Flows: Scenario 3 Learning/Non-Residential Institution (PM Peak Hour)
11.25 Traffic Flows: Scenario 3 Leisure Use (AM Peak Hour)
11.26 Traffic Flows: Scenario 3 Leisure Use (PM Peak Hour)

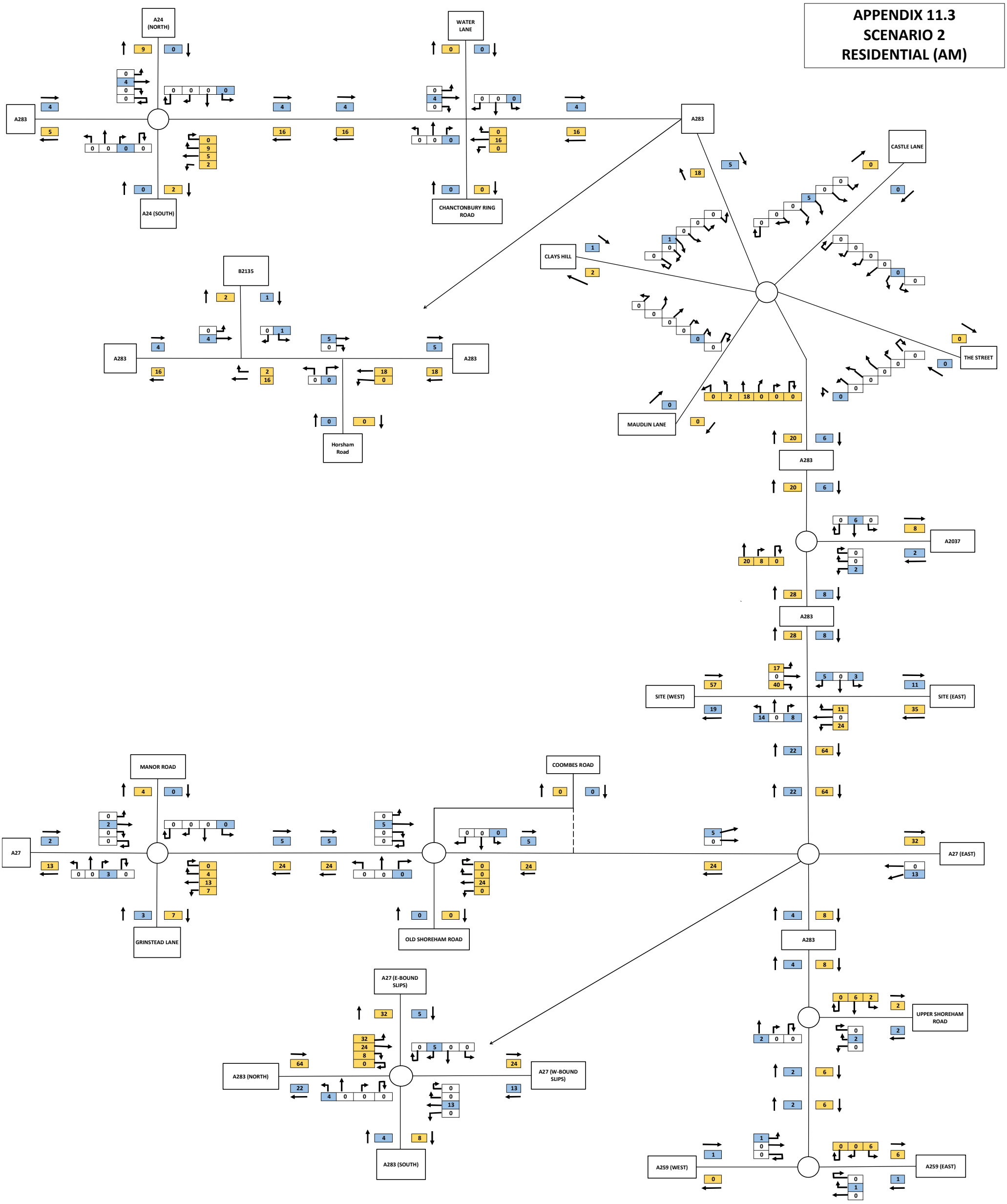
APPENDIX 11.1
SCENARIO 1
RESIDENTIAL (AM)



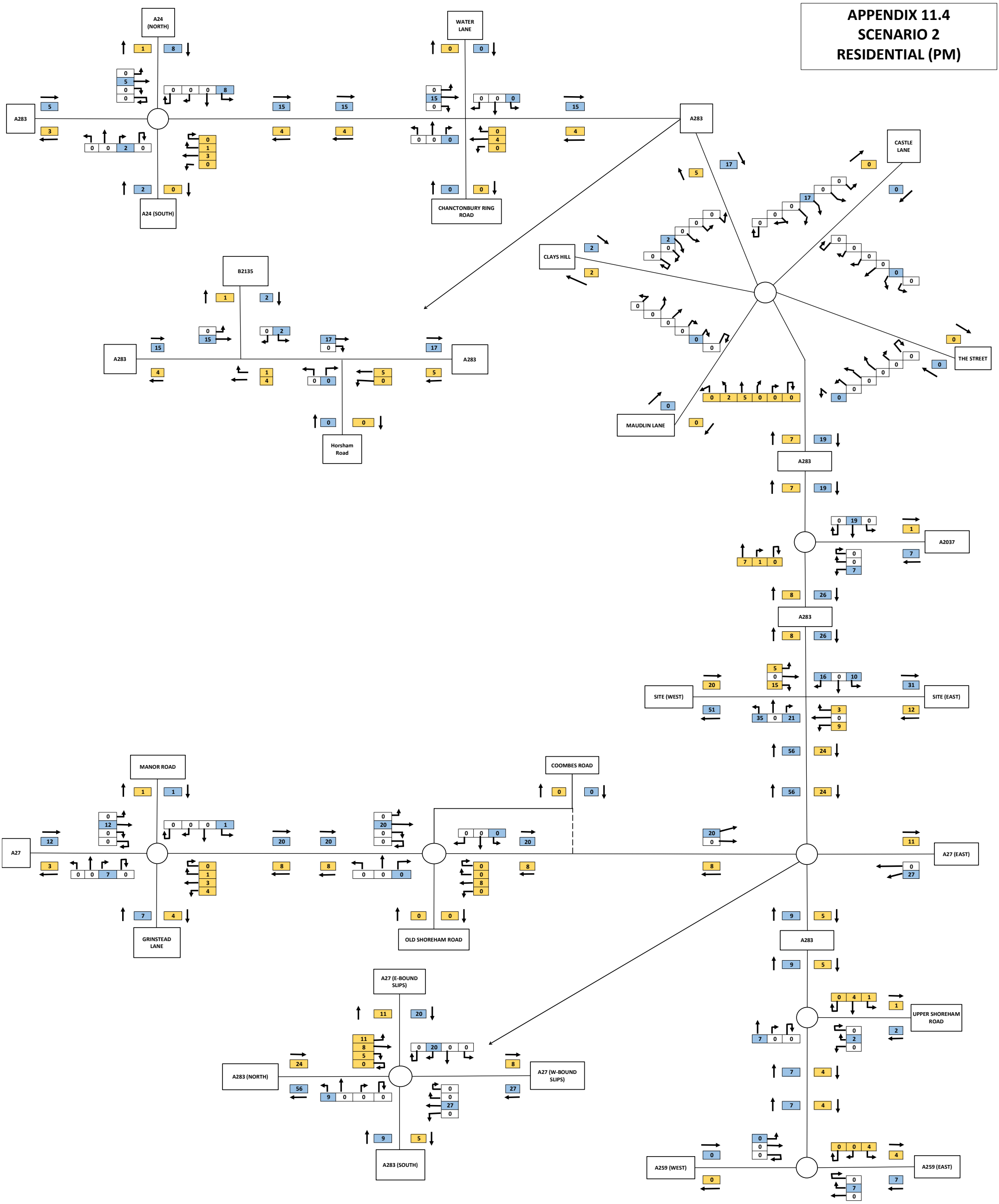
APPENDIX 11.2
SCENARIO 1
RESIDENTIAL (PM)



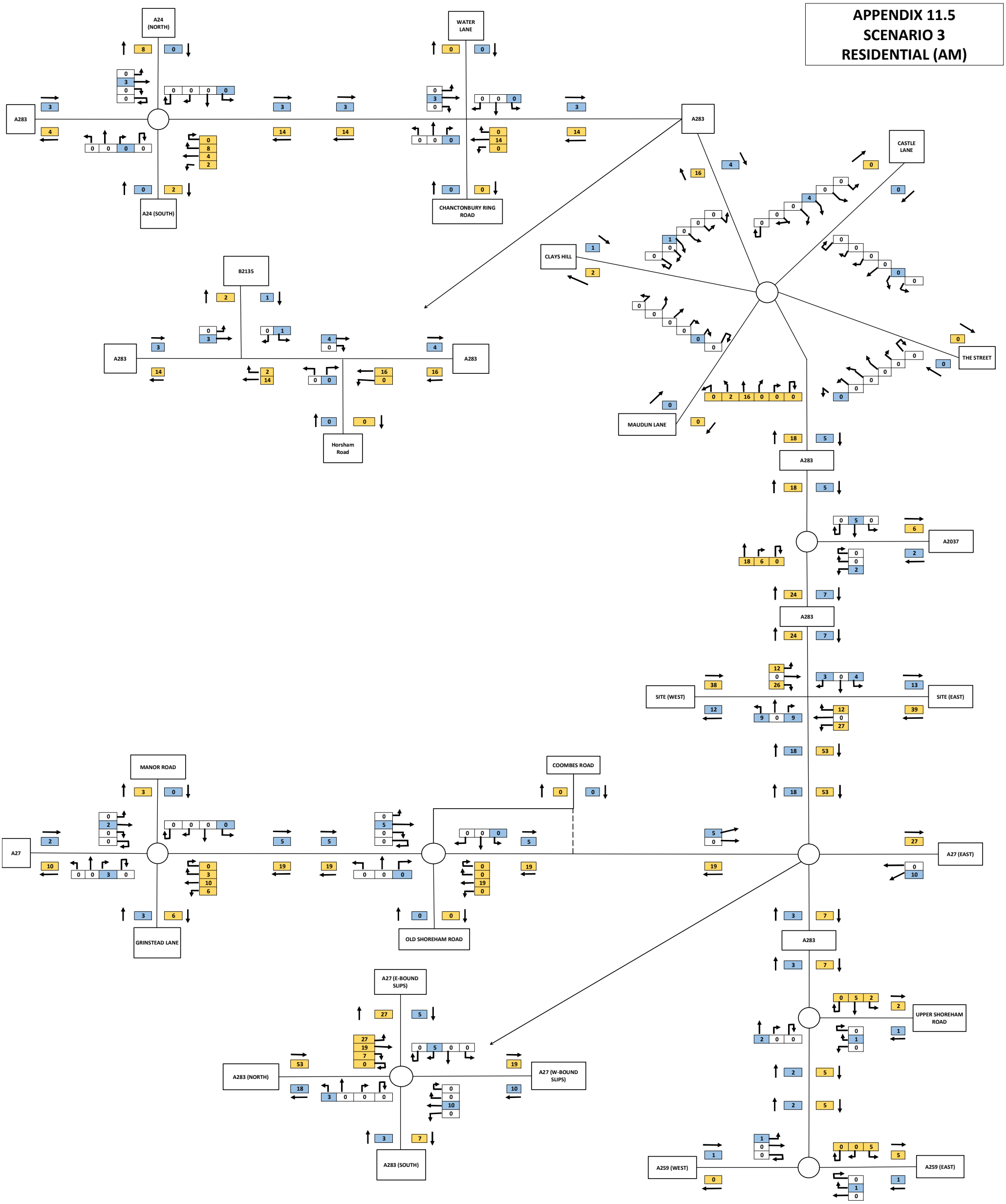
APPENDIX 11.3
SCENARIO 2
RESIDENTIAL (AM)



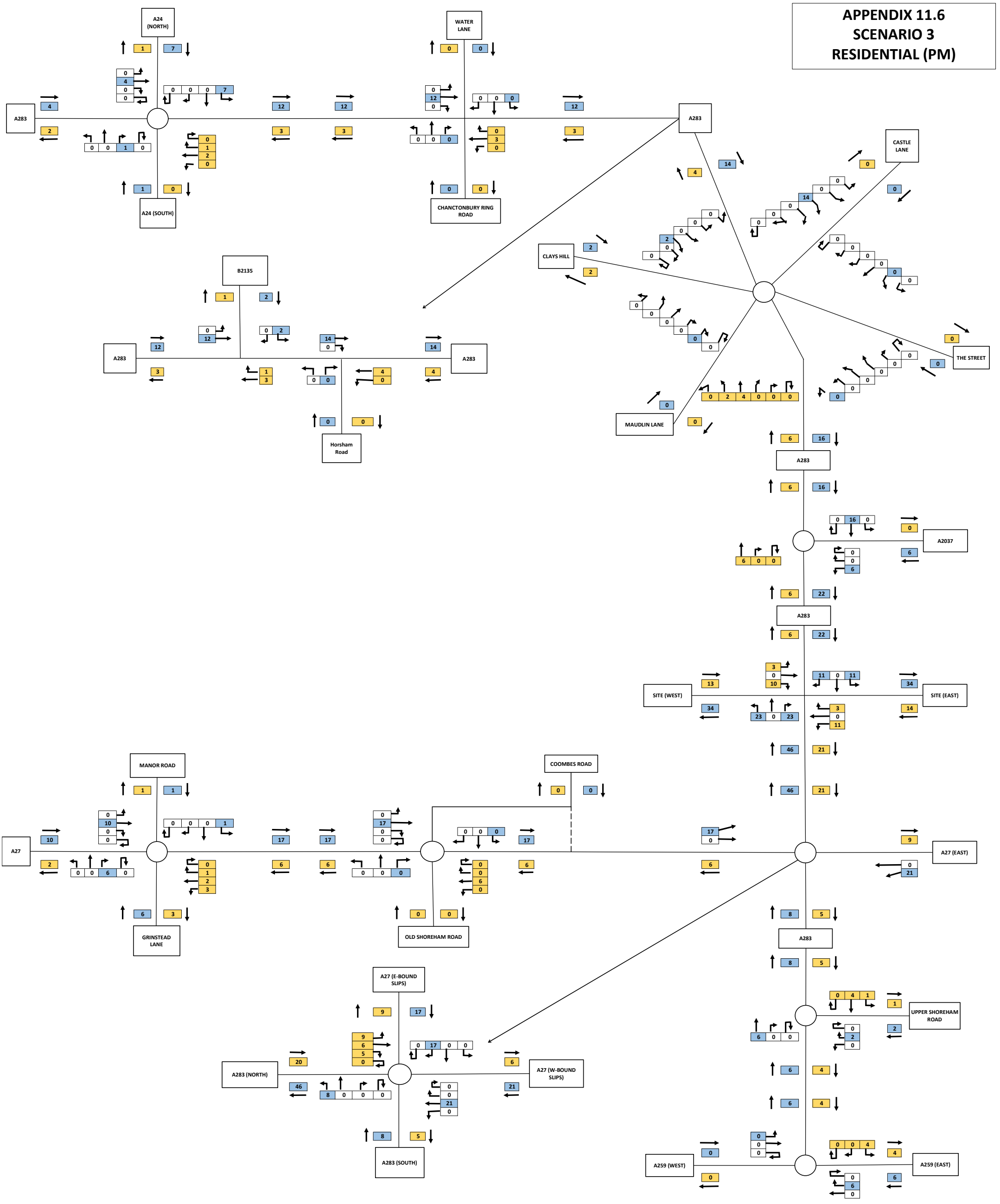
APPENDIX 11.4
SCENARIO 2
RESIDENTIAL (PM)



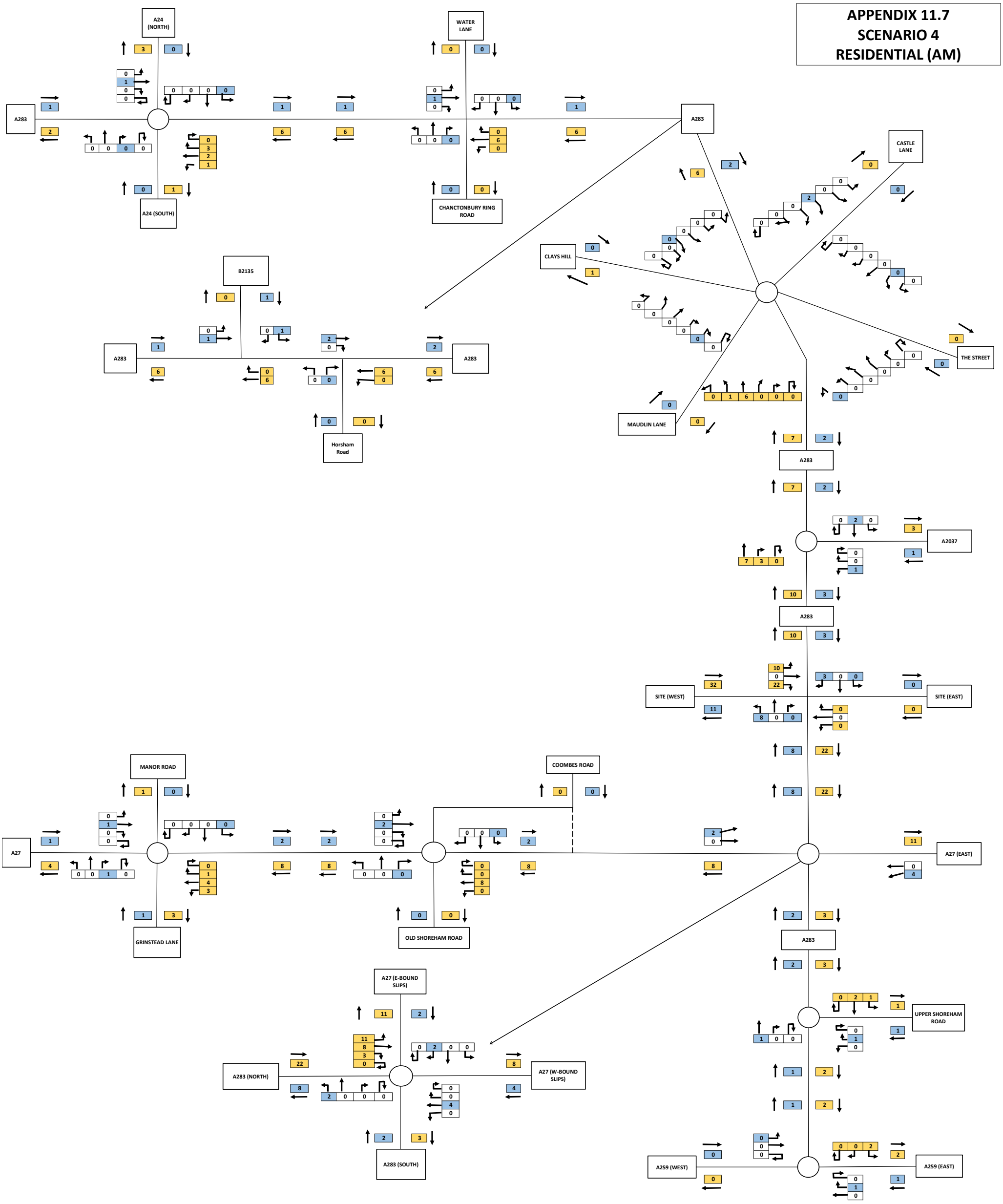
APPENDIX 11.5
SCENARIO 3
RESIDENTIAL (AM)



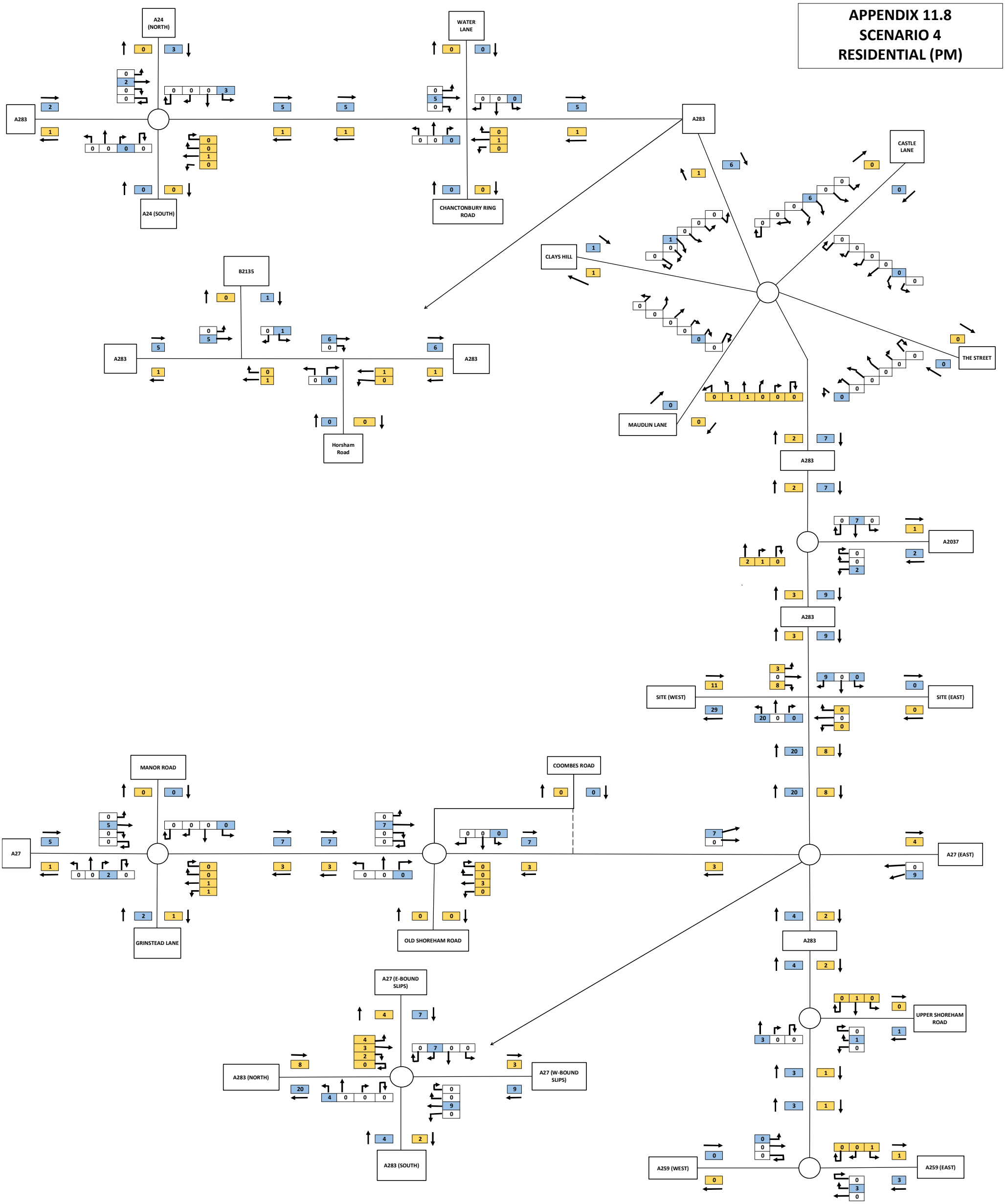
APPENDIX 11.6
SCENARIO 3
RESIDENTIAL (PM)



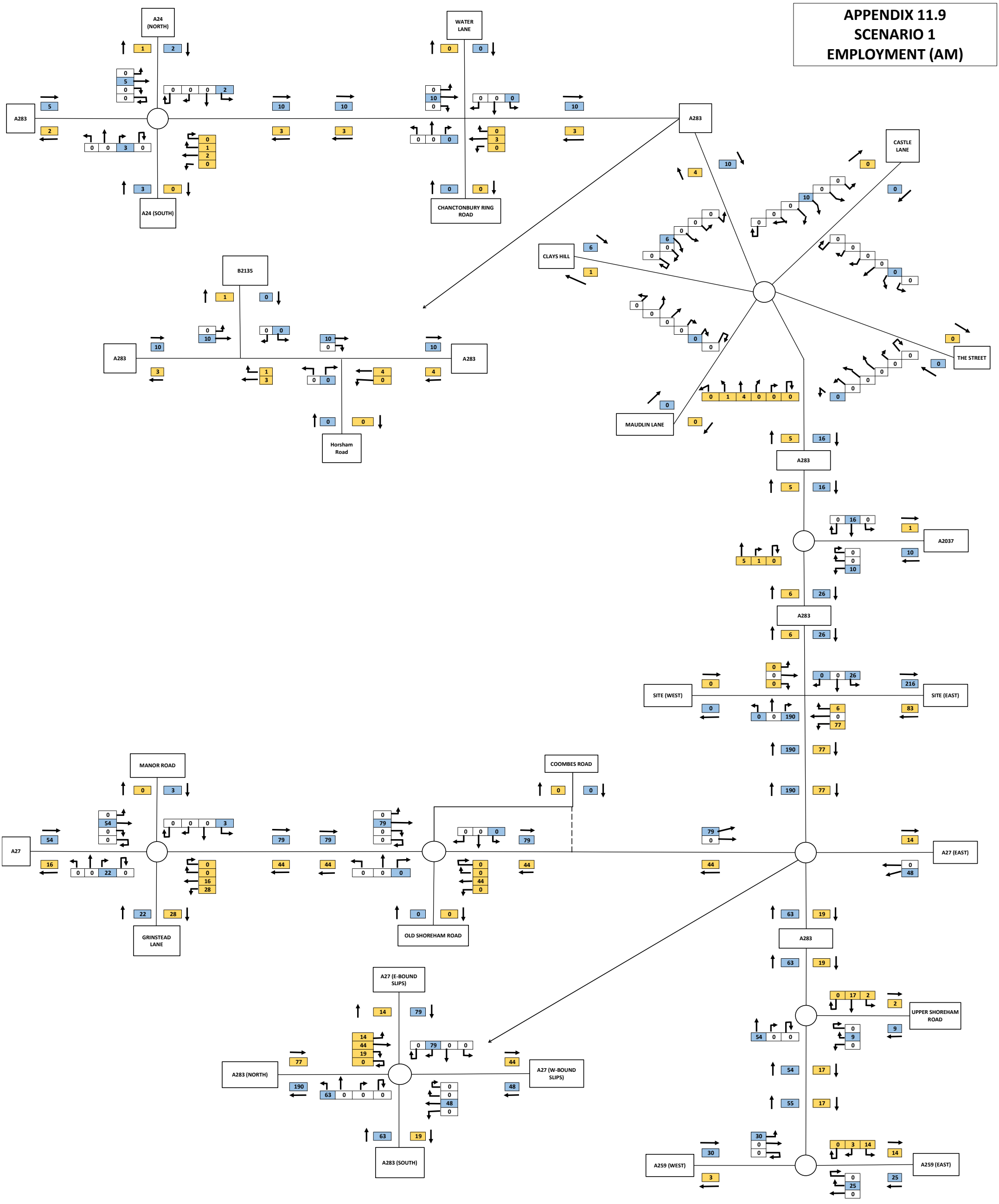
APPENDIX 11.7
SCENARIO 4
RESIDENTIAL (AM)



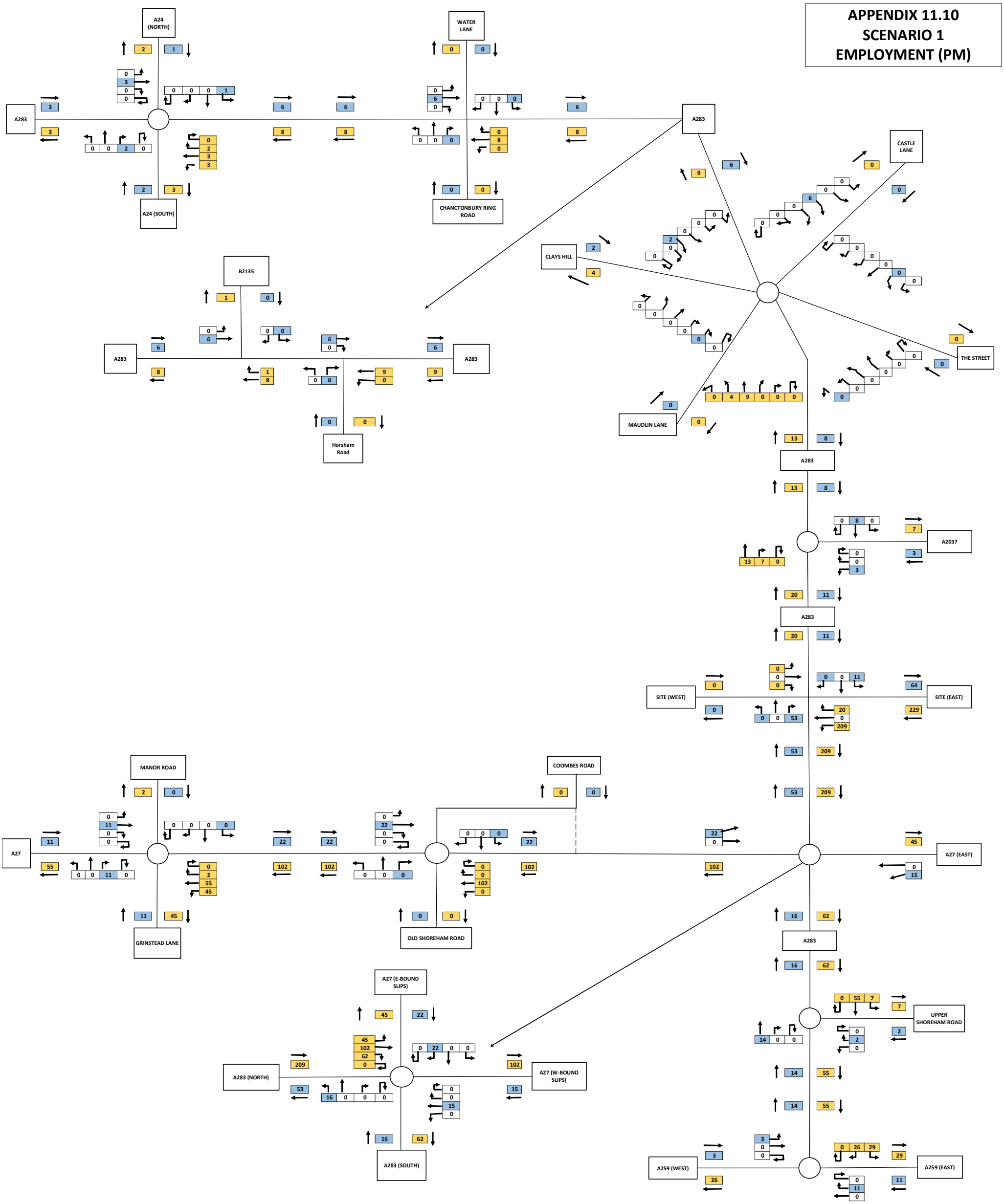
APPENDIX 11.8
SCENARIO 4
RESIDENTIAL (PM)



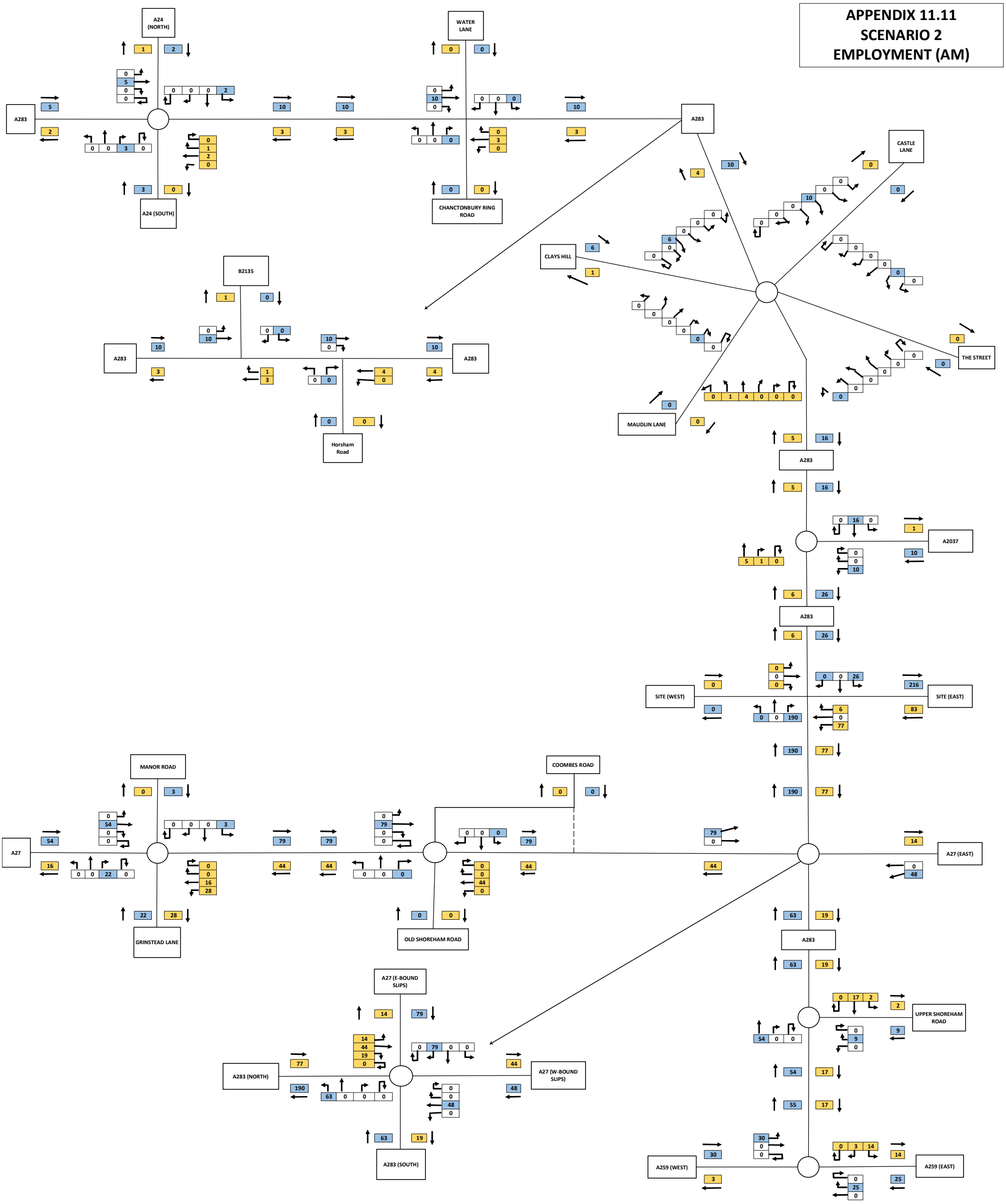
APPENDIX 11.9
SCENARIO 1
EMPLOYMENT (AM)



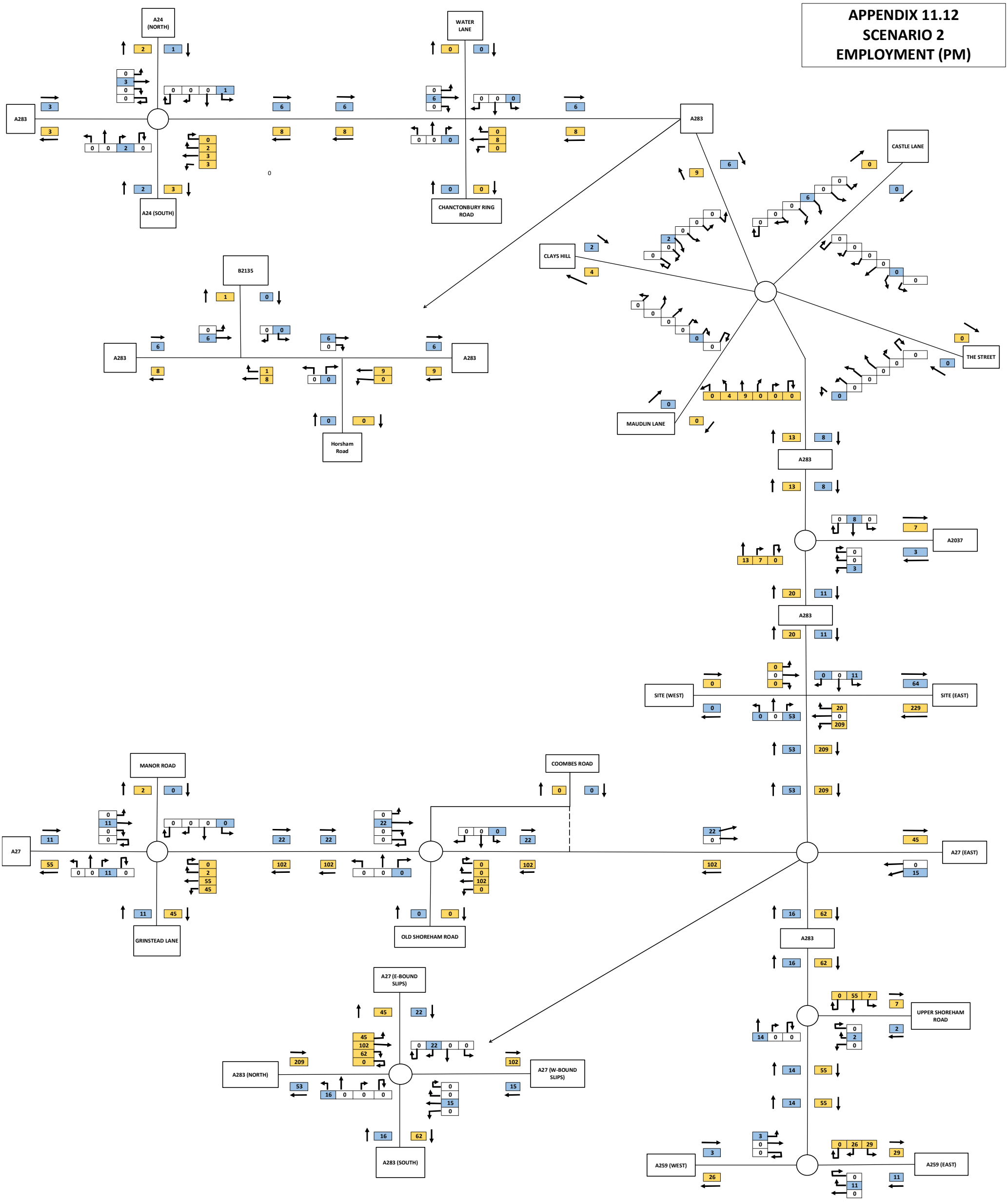
APPENDIX 11.10
SCENARIO 1
EMPLOYMENT (PM)



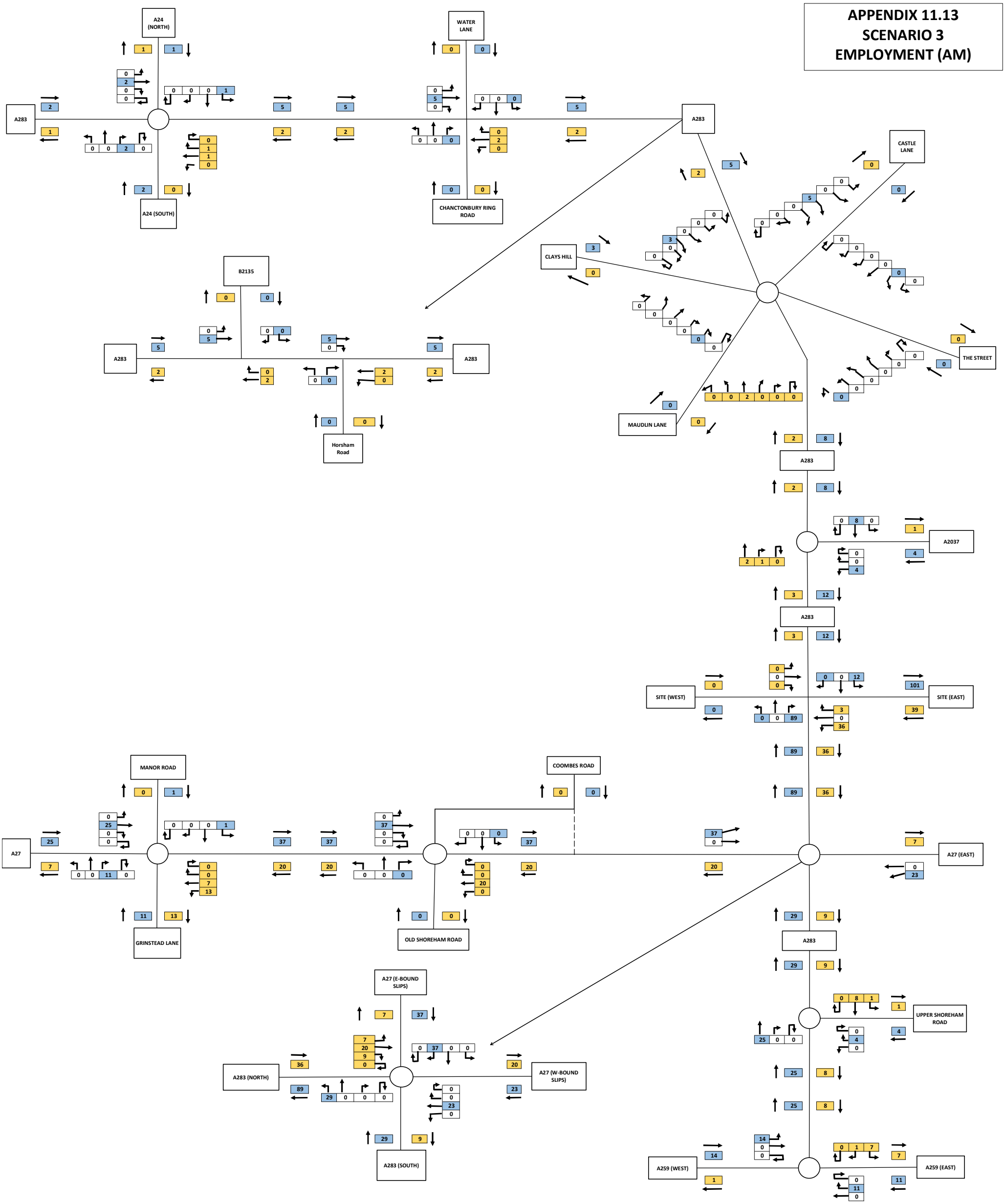
APPENDIX 11.11
SCENARIO 2
EMPLOYMENT (AM)



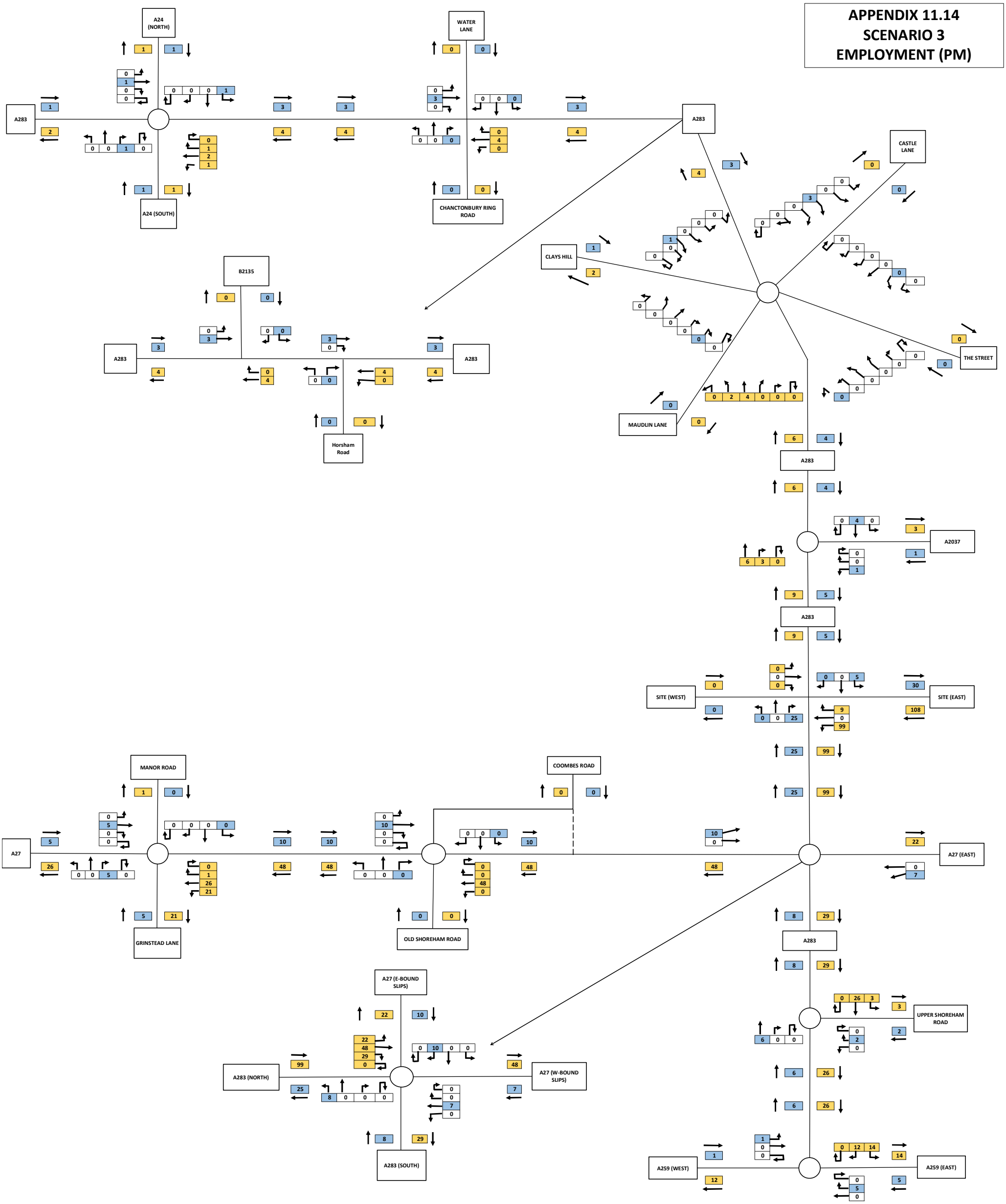
APPENDIX 11.12
SCENARIO 2
EMPLOYMENT (PM)



APPENDIX 11.13
SCENARIO 3
EMPLOYMENT (AM)



APPENDIX 11.14
SCENARIO 3
EMPLOYMENT (PM)



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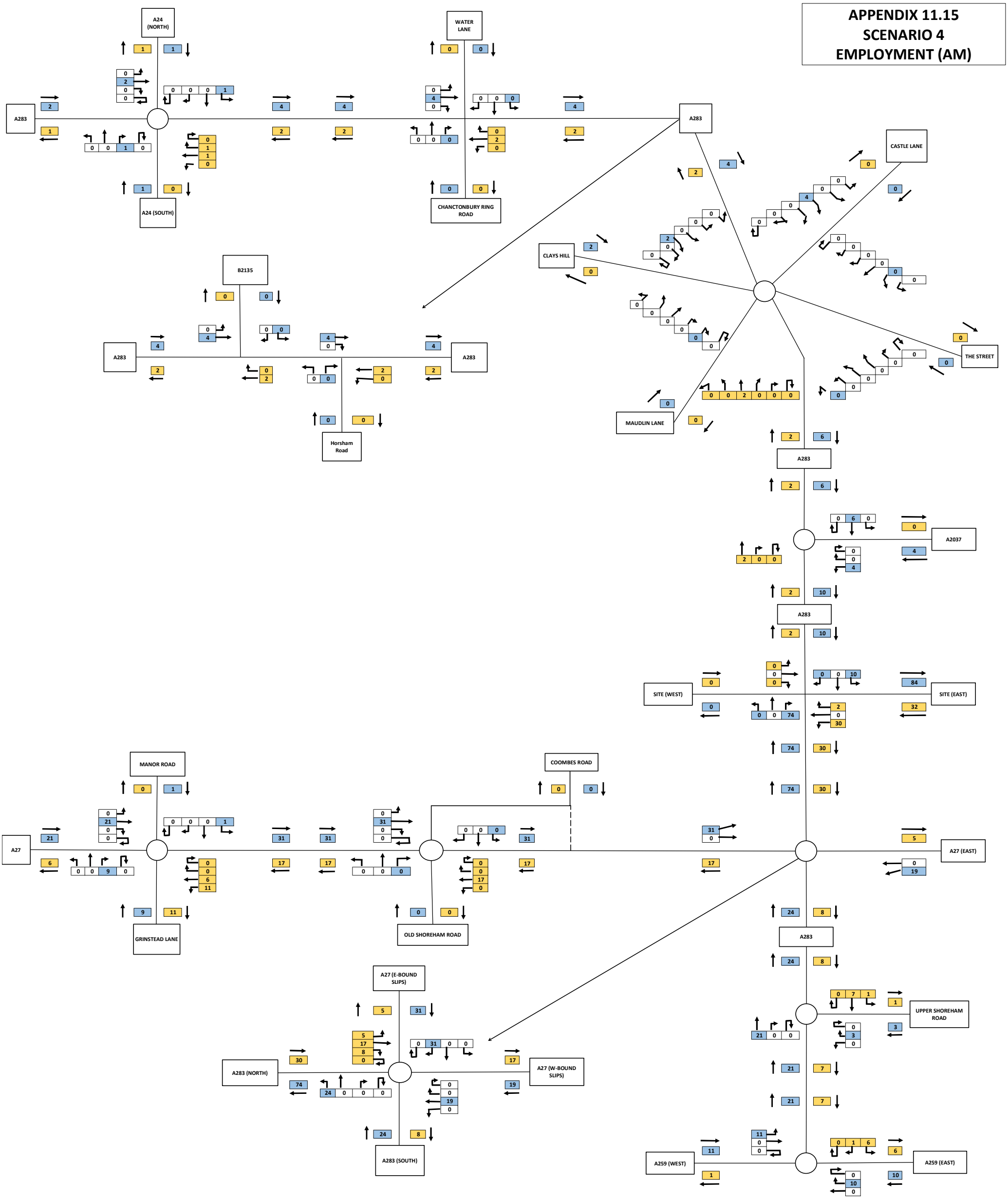

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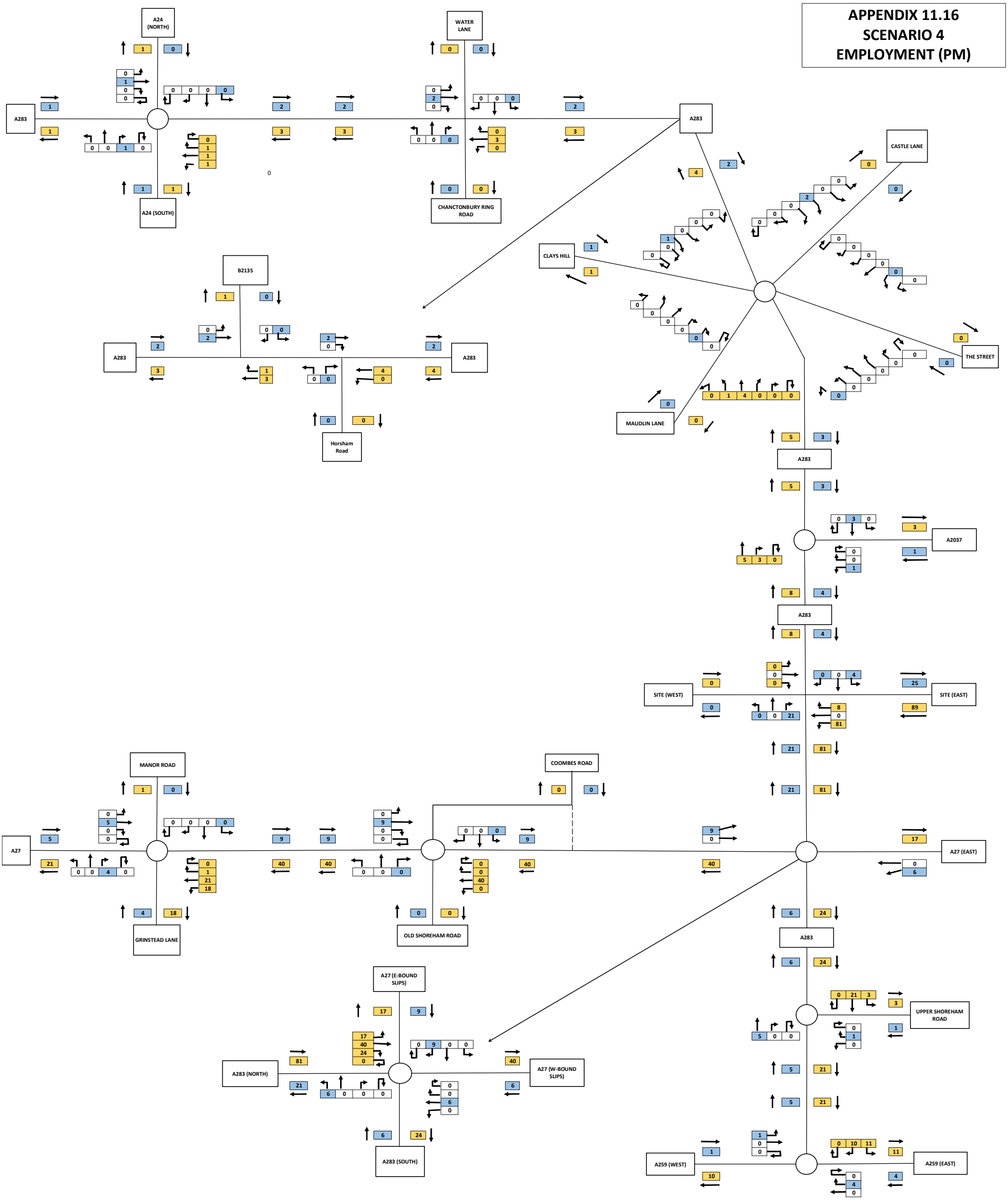

APPENDIX 11.17
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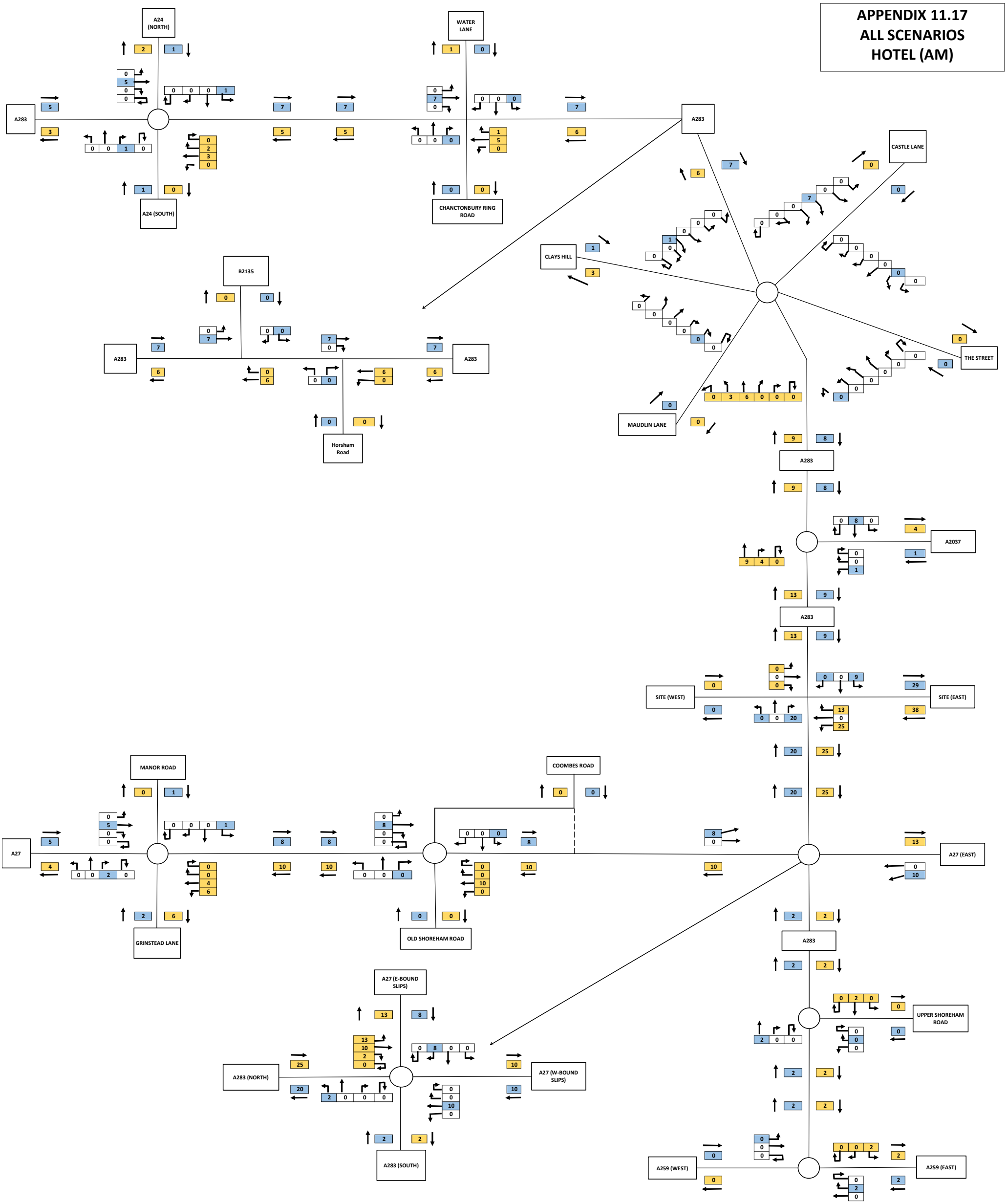
HOTEL (AM)



APPENDIX 11.18
ALL SCENARIOS
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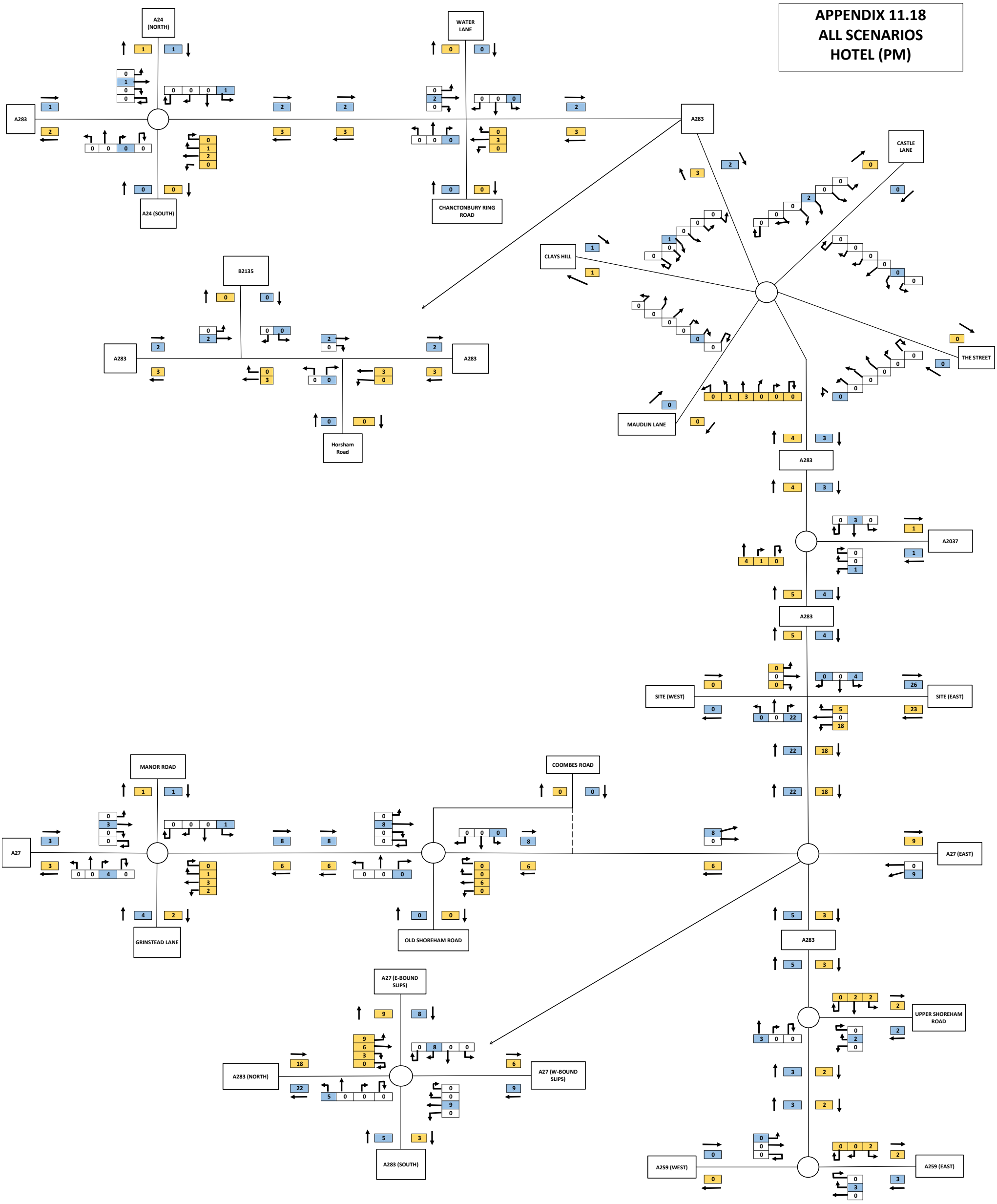

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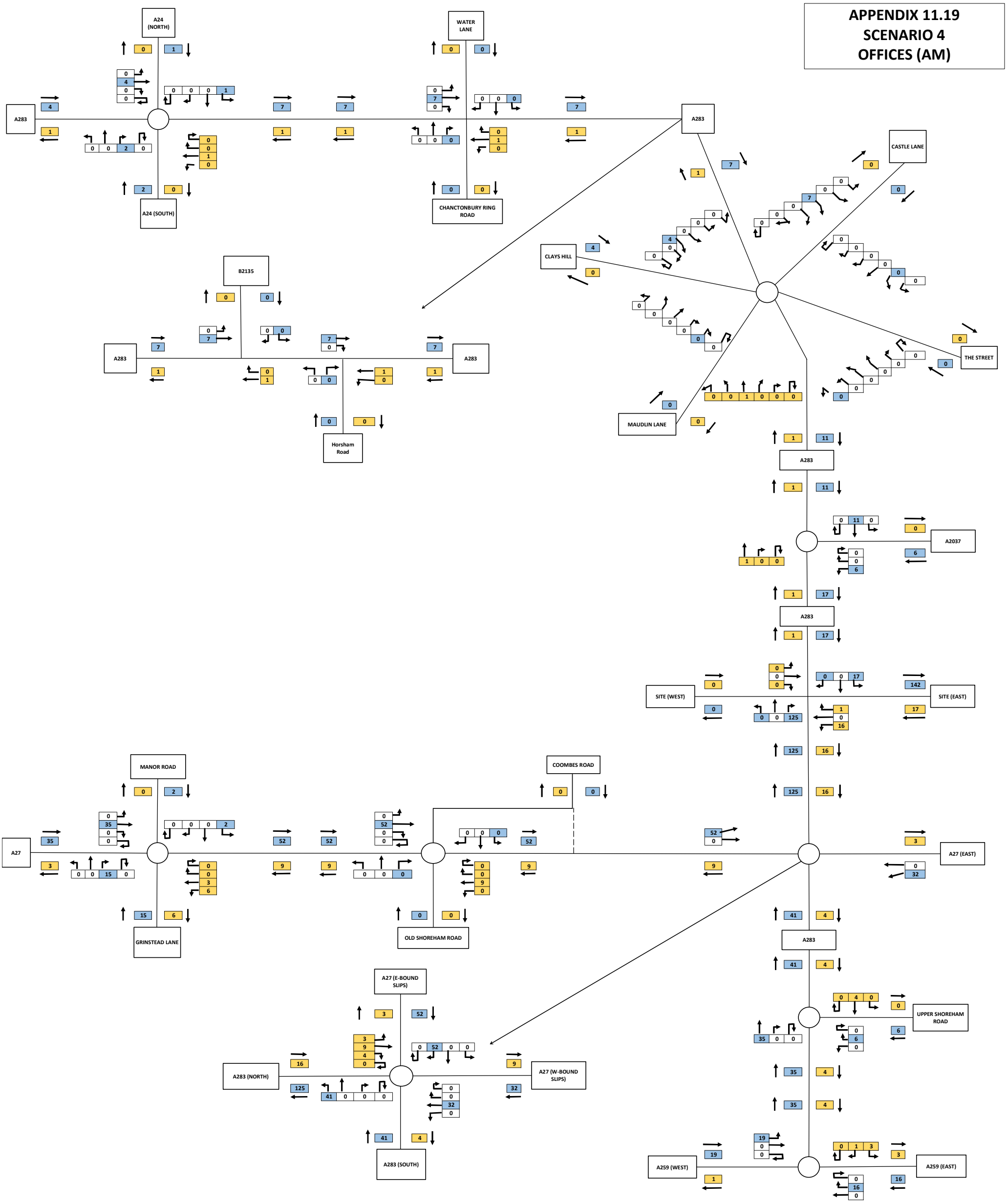

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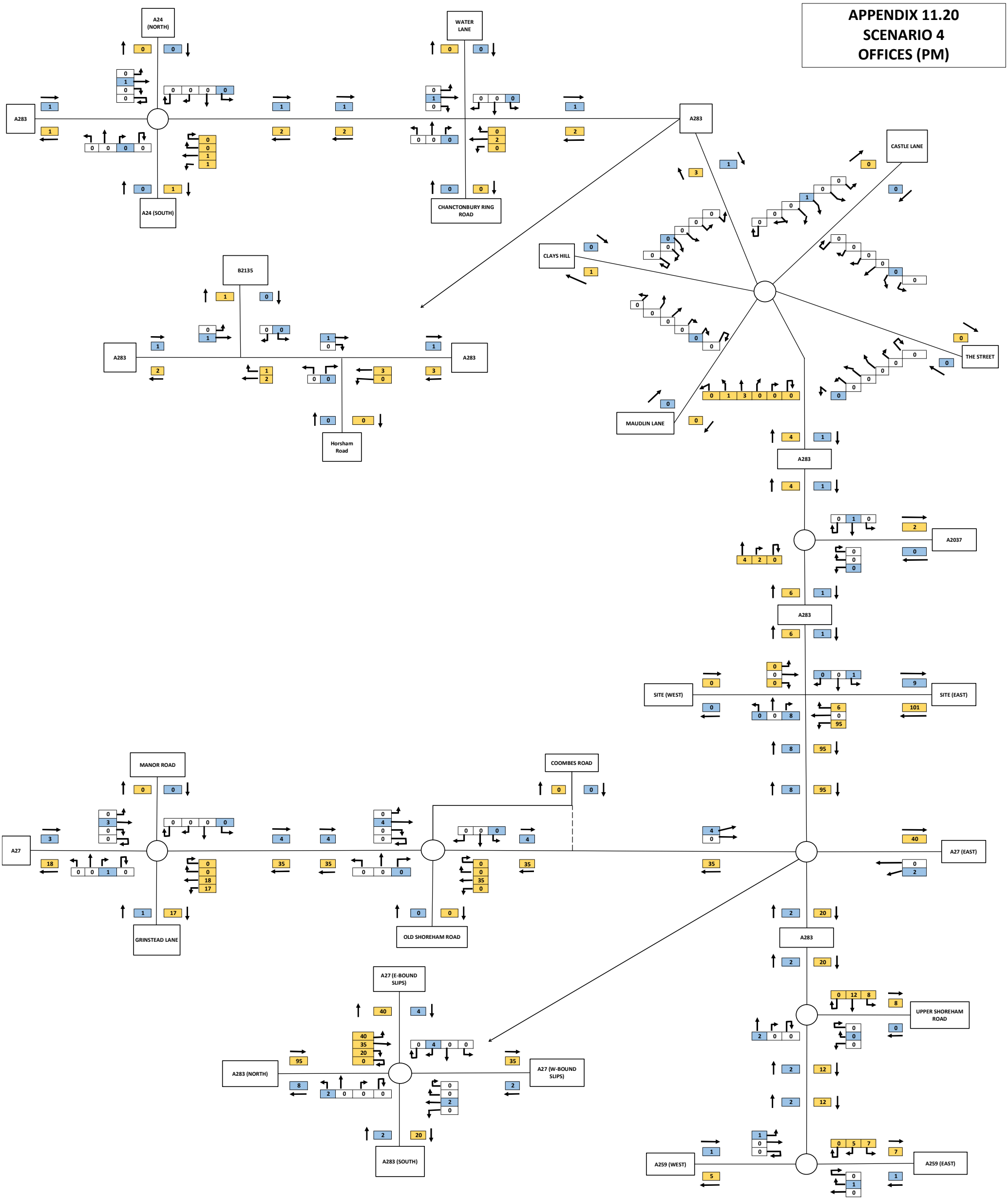

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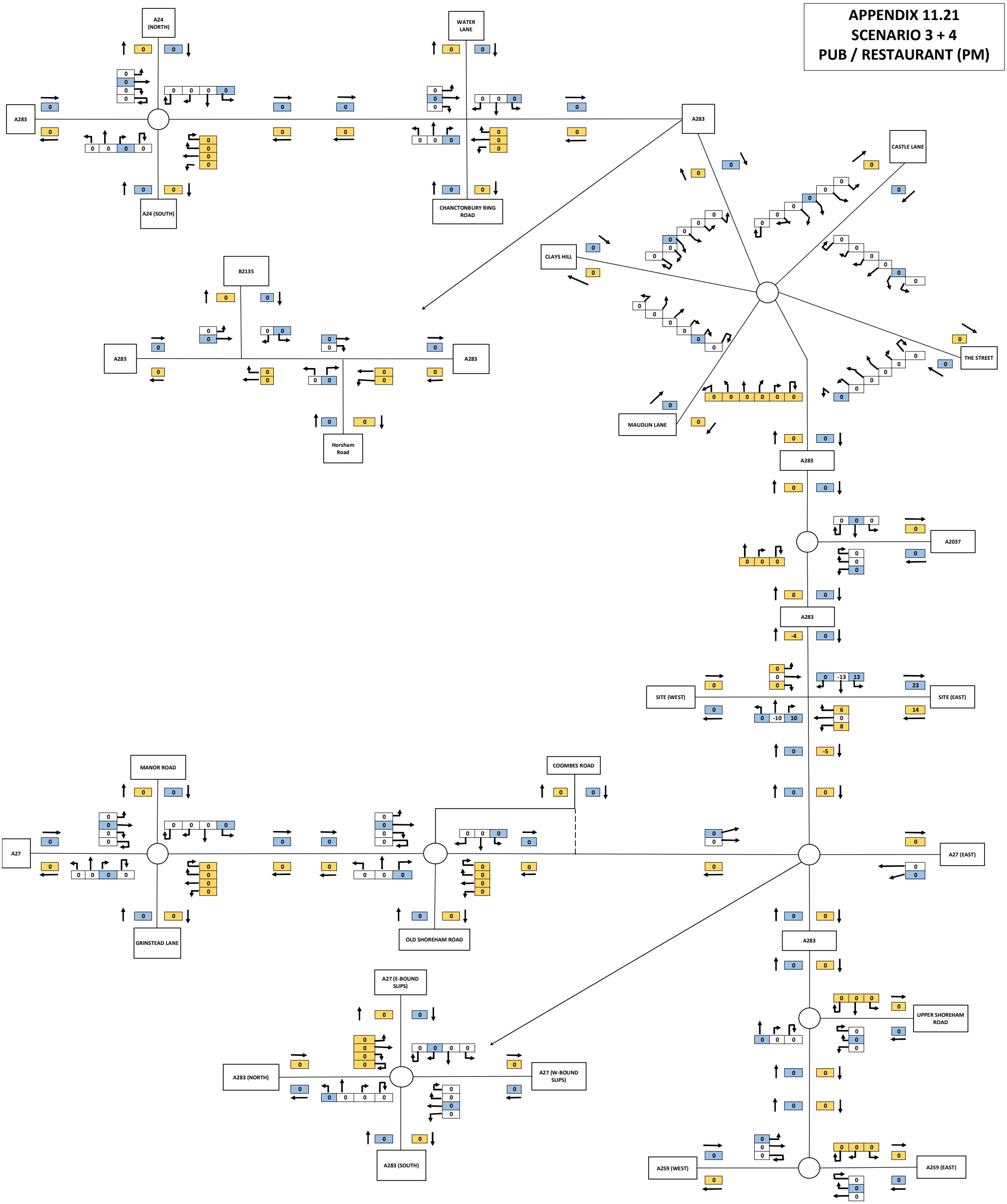
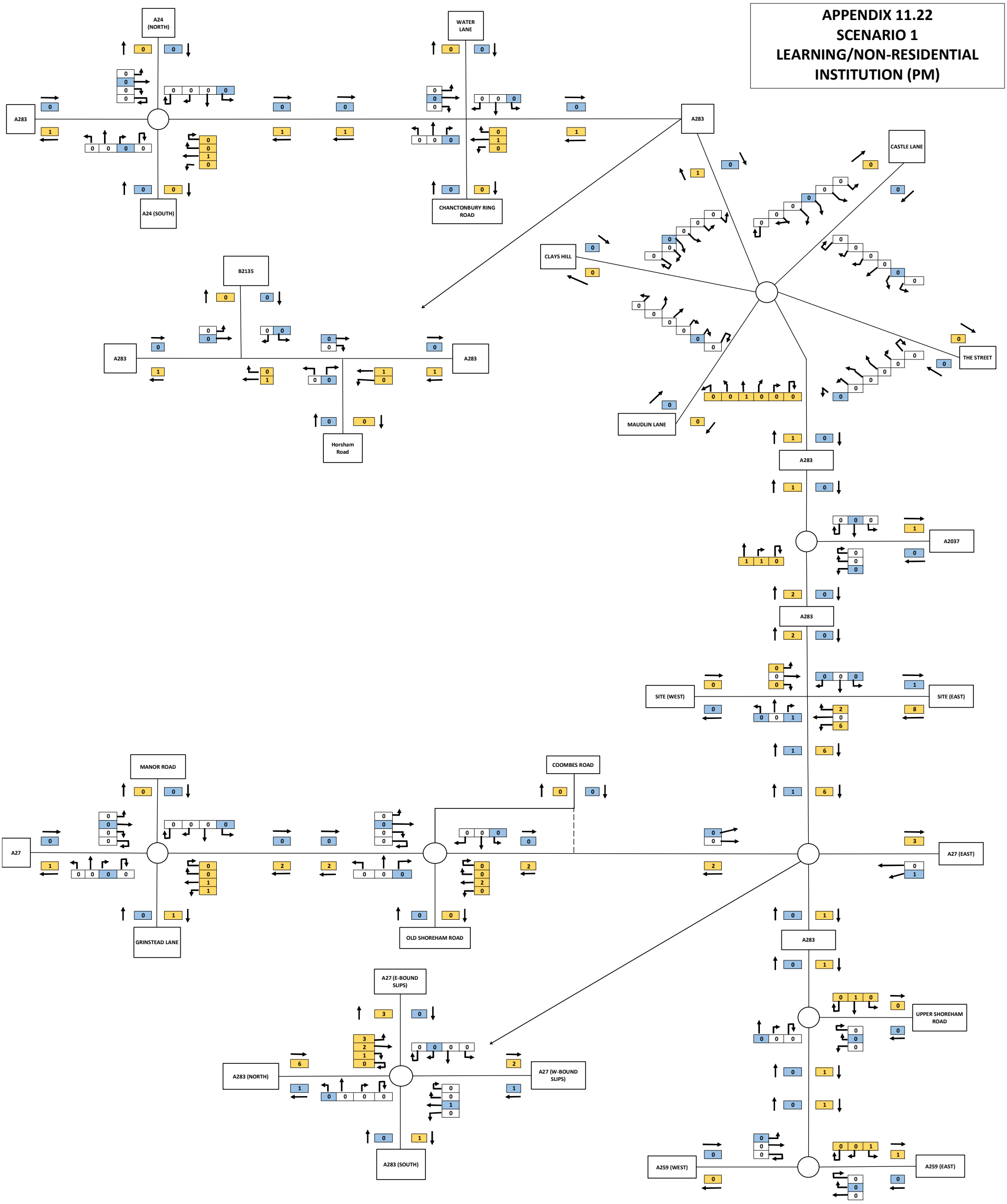
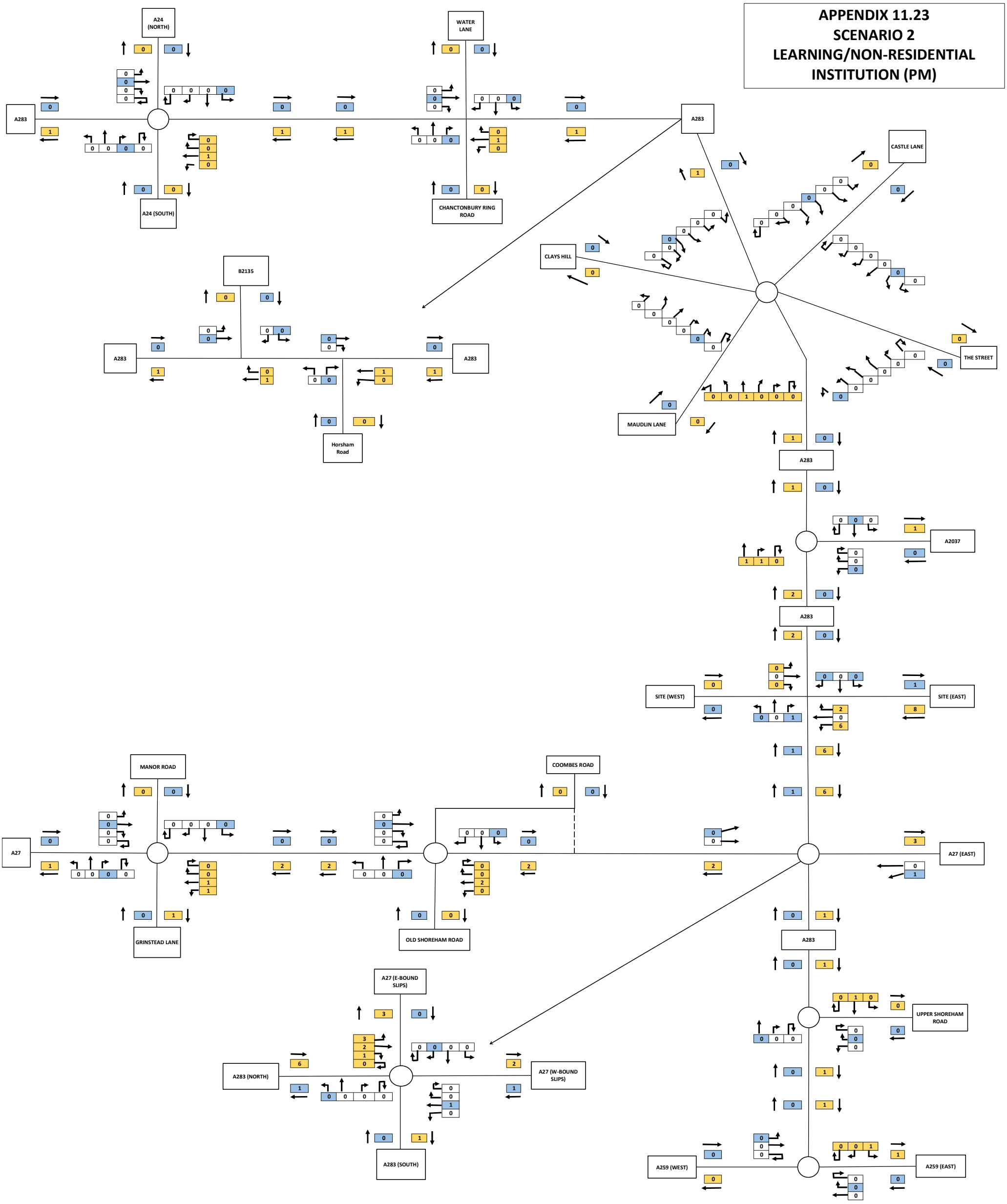
SCENARIO 3 + 4
PUB / RESTAURANT (PM)



APPENDIX 11.22
SCENARIO 1
LEARNING/NON-RESIDENTIAL INSTITUTION (PM)



APPENDIX 11.23
SCENARIO 2
LEARNING/NON-RESIDENTIAL INSTITUTION (PM)



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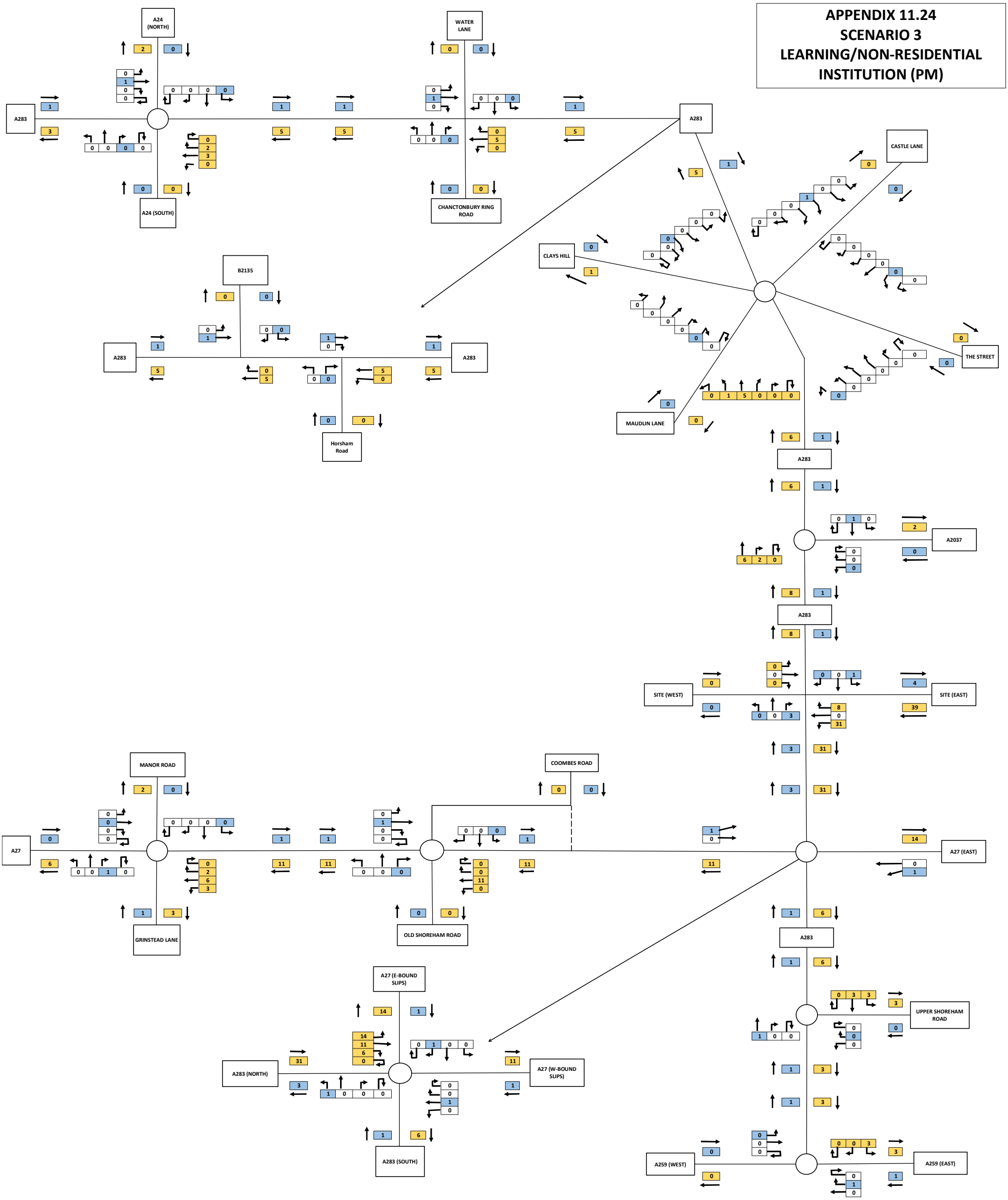

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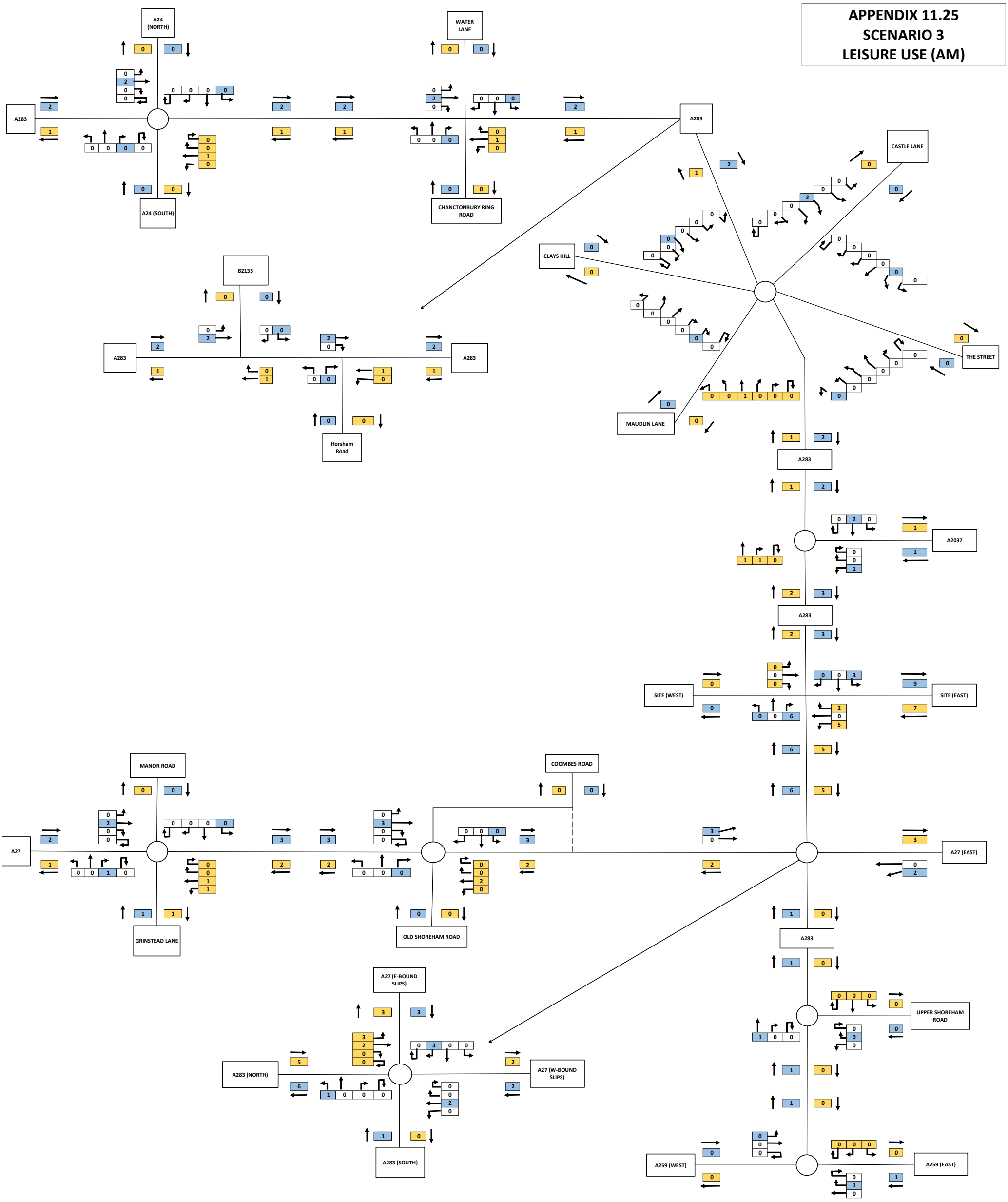
LEISURE USE (AM)



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SCENARIO 3
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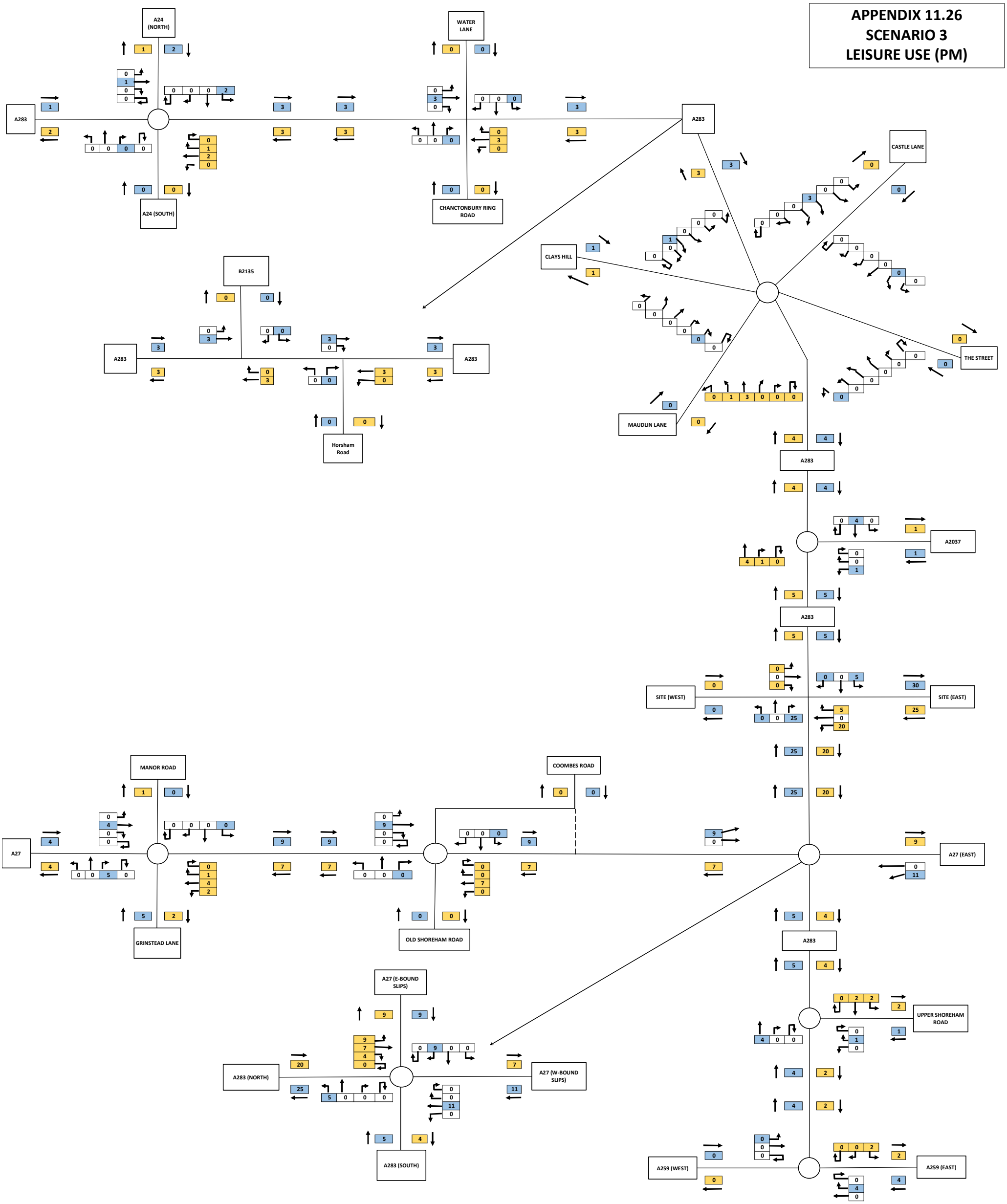
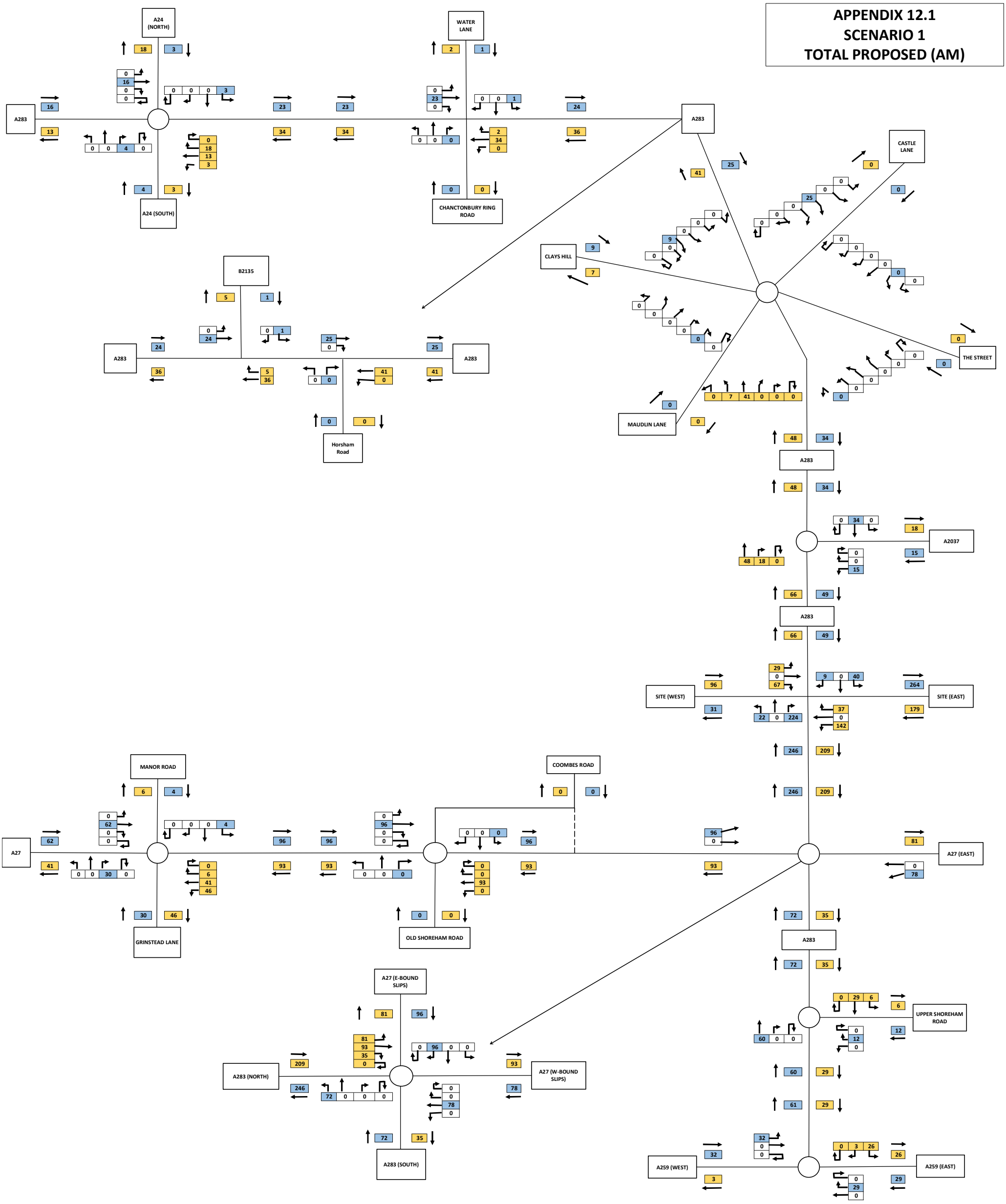


APPENDIX 12.0

PROPOSED TRAFFIC FLOWS - TOTALS

12.1 Traffic Flows: Scenario 1 Total Proposed (AM Peak Hour)
12.2 Traffic Flows: Scenario 1 Total Proposed (PM Peak Hour)
12.3 Traffic Flows: Scenario 2 Total Proposed (AM Peak Hour)
12.4 Traffic Flows: Scenario 2 Total Proposed (PM Peak Hour)
12.5 Traffic Flows: Scenario 3 Total Proposed (AM Peak Hour)
12.6 Traffic Flows: Scenario 3 Total Proposed (PM Peak Hour)
12.7 Traffic Flows: Scenario 4 Total Proposed (AM Peak Hour)
12.8 Traffic Flows: Scenario 4 Total Proposed (PM Peak Hour)
12.9 Traffic Flows: Scenario 1 2033 Total (AM Peak Hour)
12.10 Traffic Flows: Scenario 1 2033 Total (PM Peak Hour)
12.11 Traffic Flows: Scenario 2 2033 Total (AM Peak Hour)
12.12 Traffic Flows: Scenario 2 2033 Total (PM Peak Hour)
12.13 Traffic Flows: Scenario 3 2033 Total (AM Peak Hour)
12.14 Traffic Flows: Scenario 3 2033 Total (PM Peak Hour)
12.15 Traffic Flows: Scenario 4 2033 Total (AM Peak Hour)
12.16 Traffic Flows: Scenario 4 2033 Total (PM Peak Hour)

APPENDIX 12.1
SCENARIO 1
TOTAL PROPOSED (AM)



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SCENARIO 1
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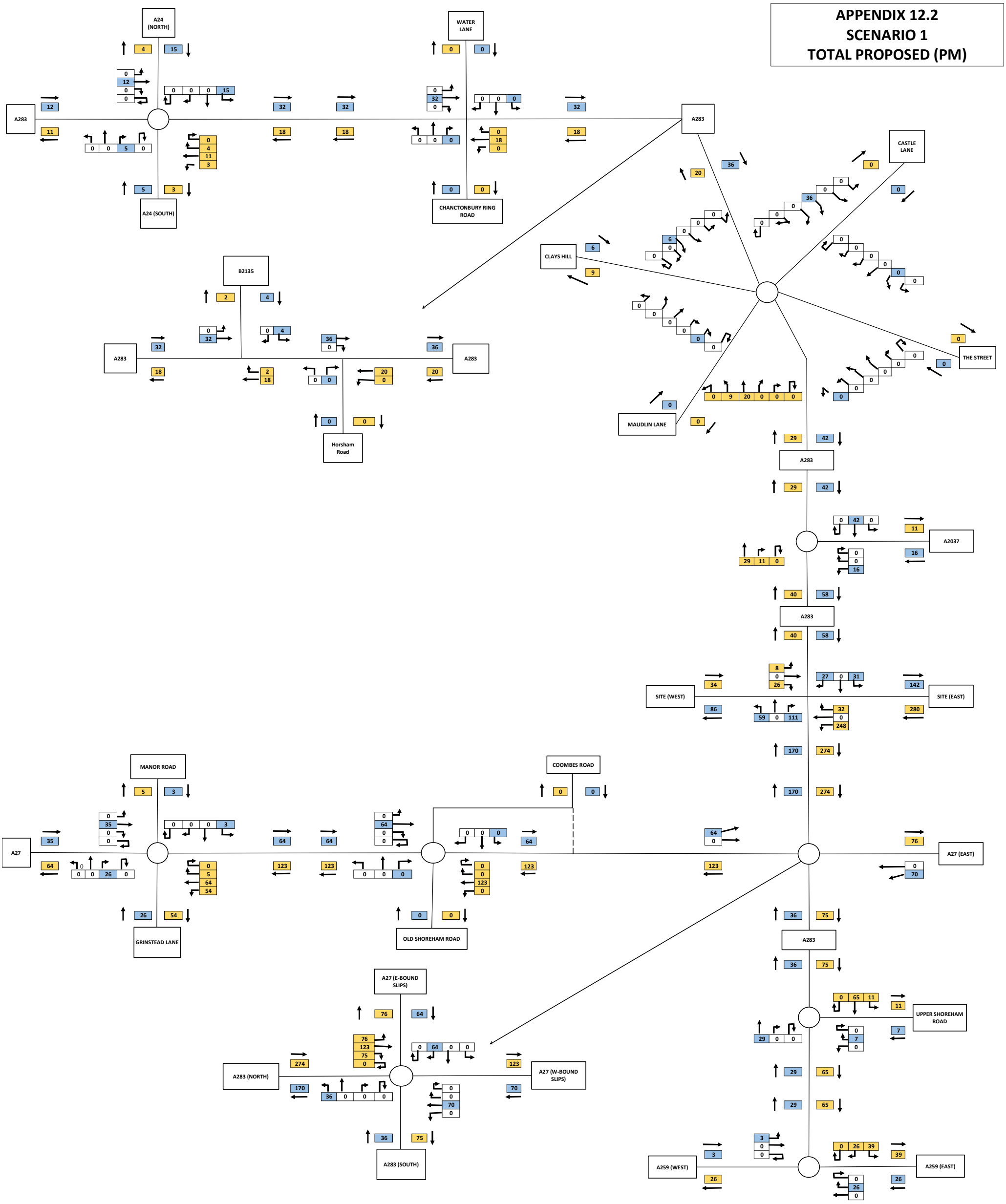

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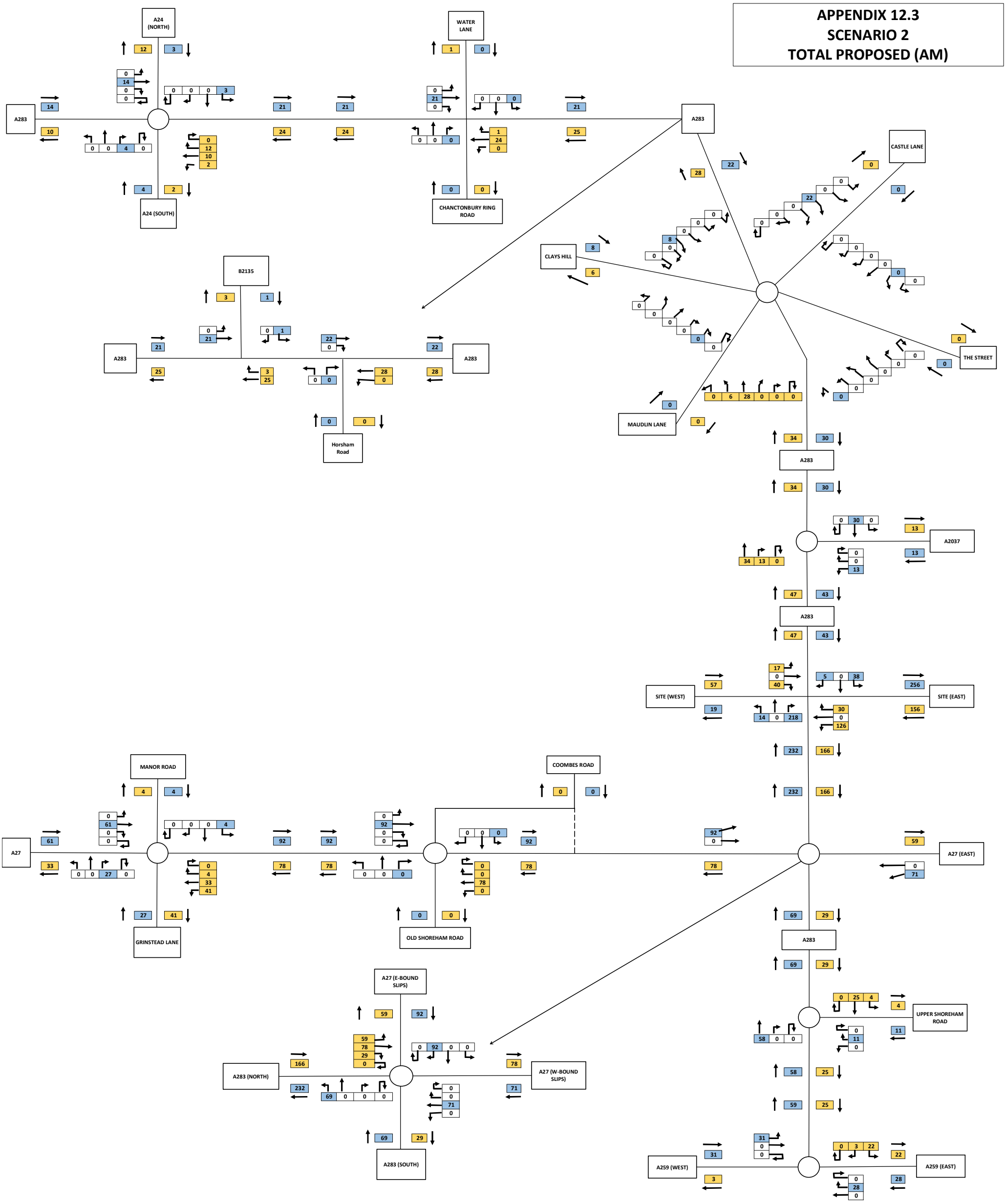
SCENARIO 2
TOTAL PROPOSED (AM)



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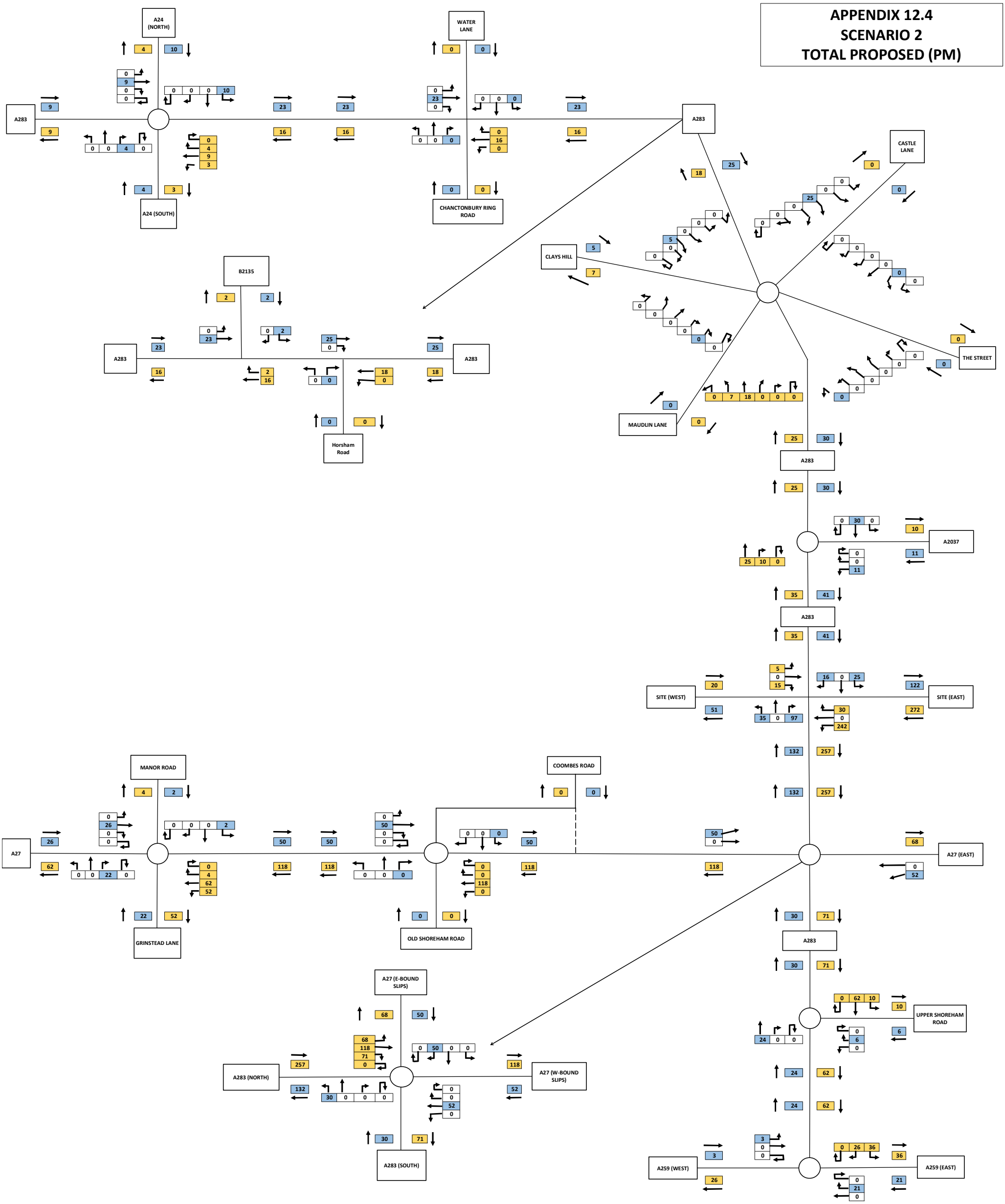

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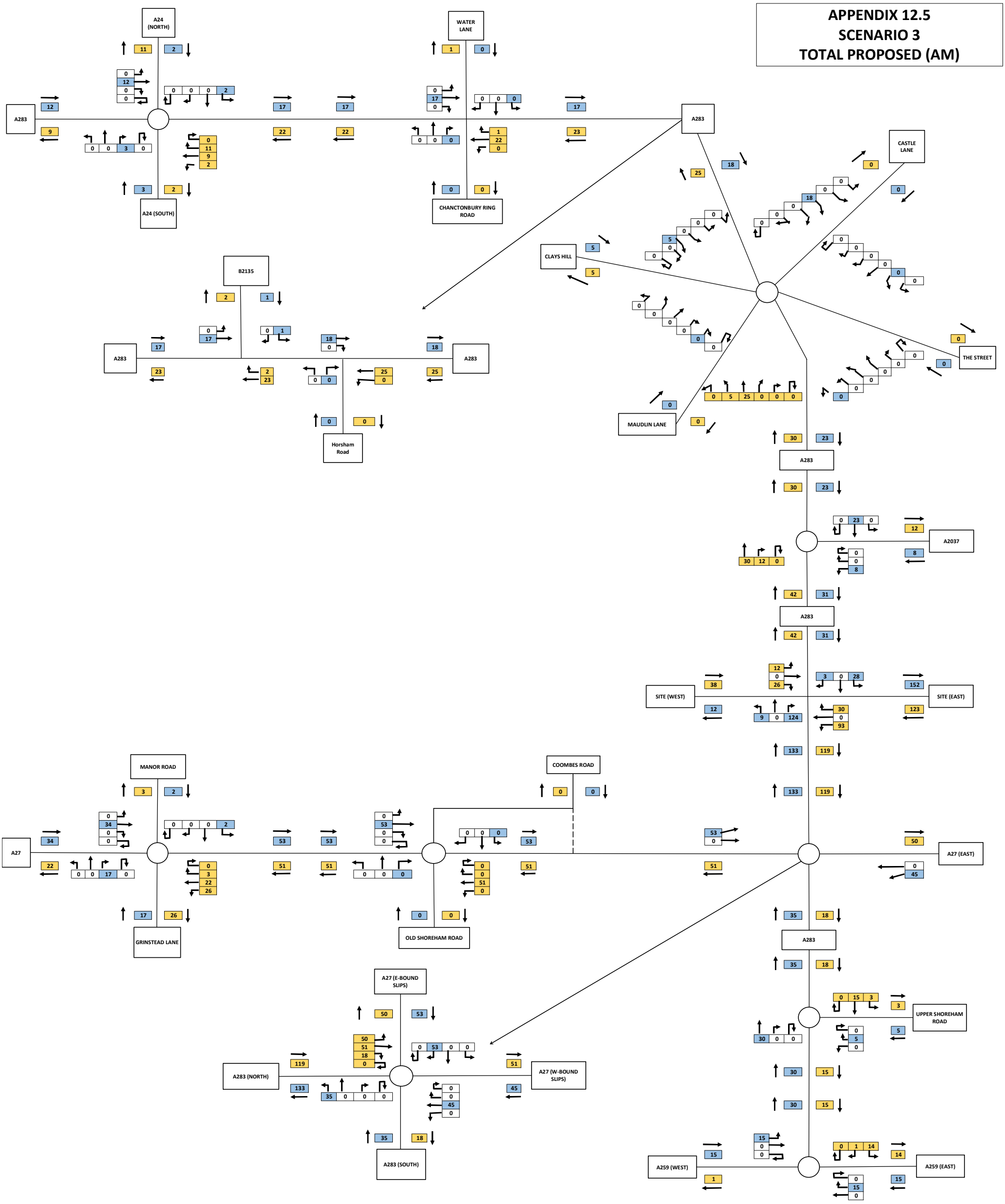

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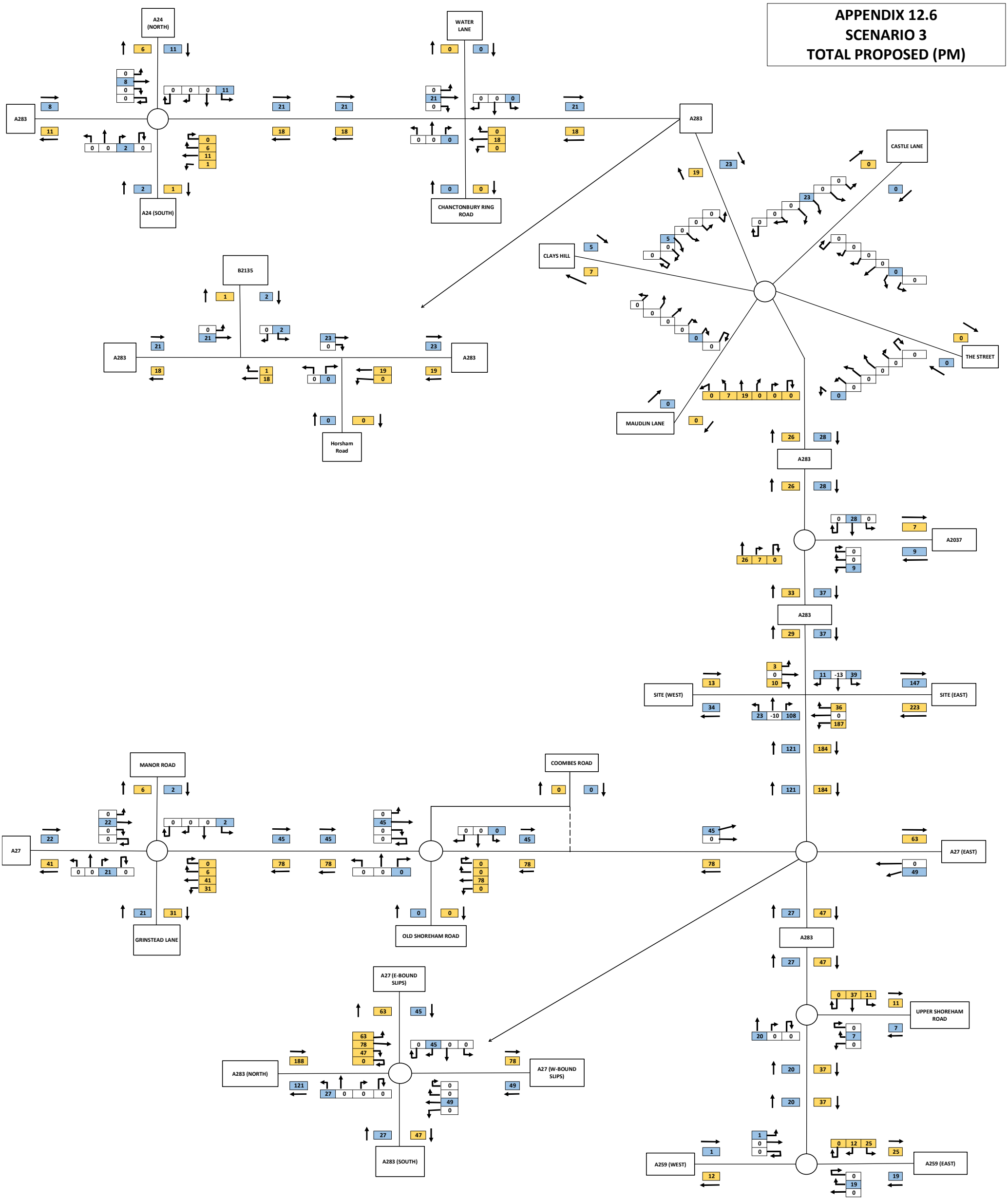
TOTAL PROPOSED (PM)



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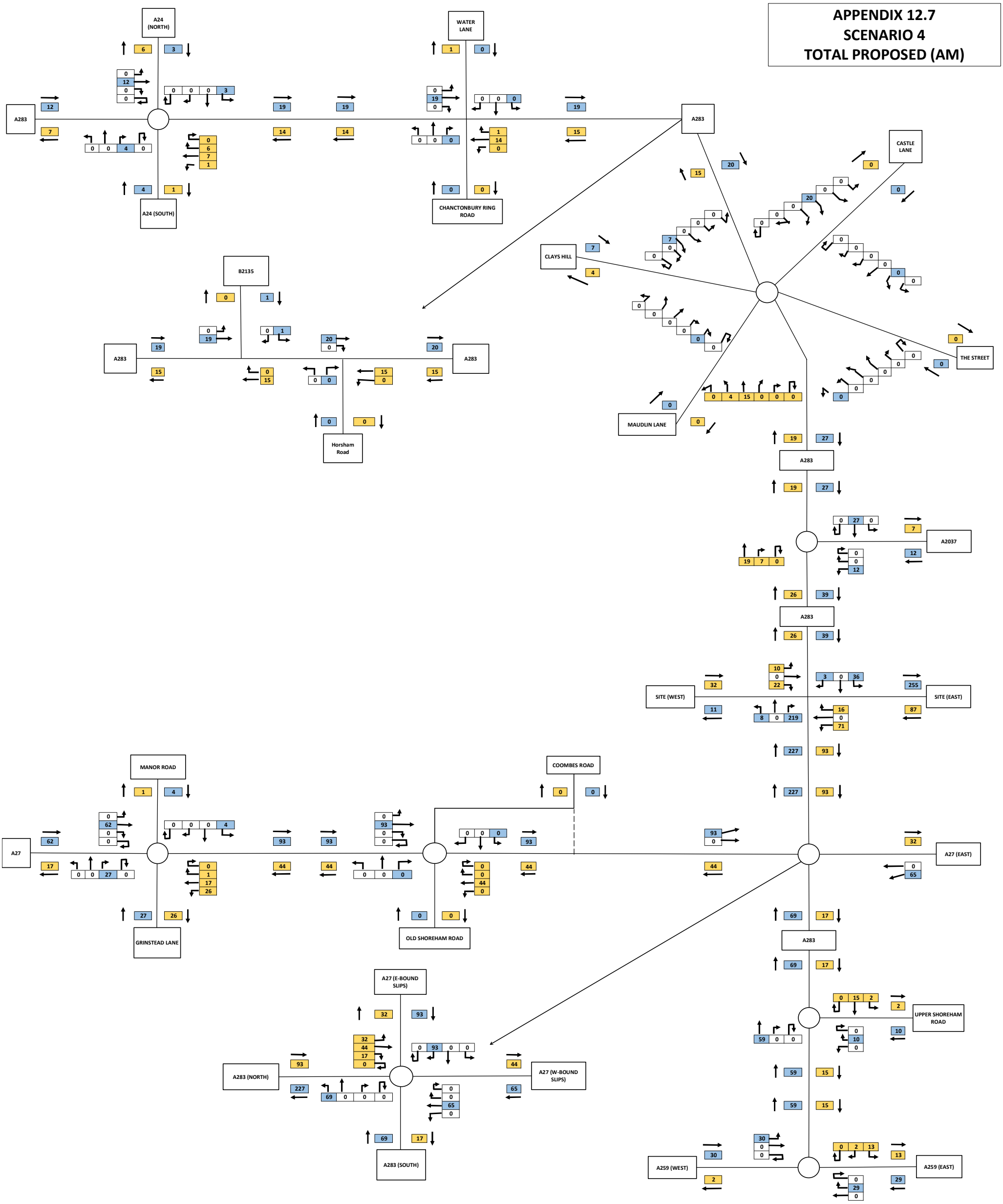
SCENARIO 4
TOTAL PROPOSED (AM)



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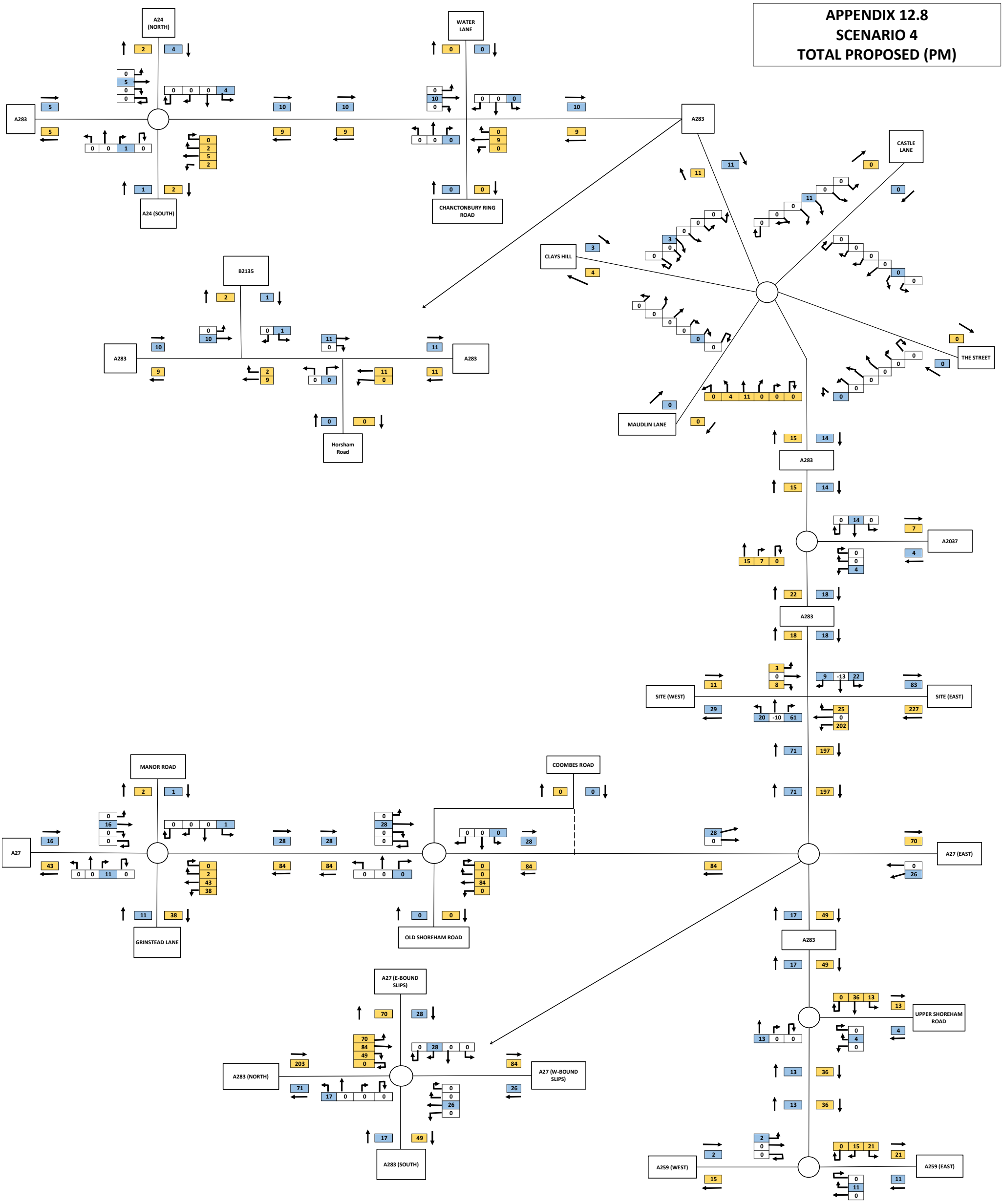
SCENARIO 4
TOTAL PROPOSED (PM)



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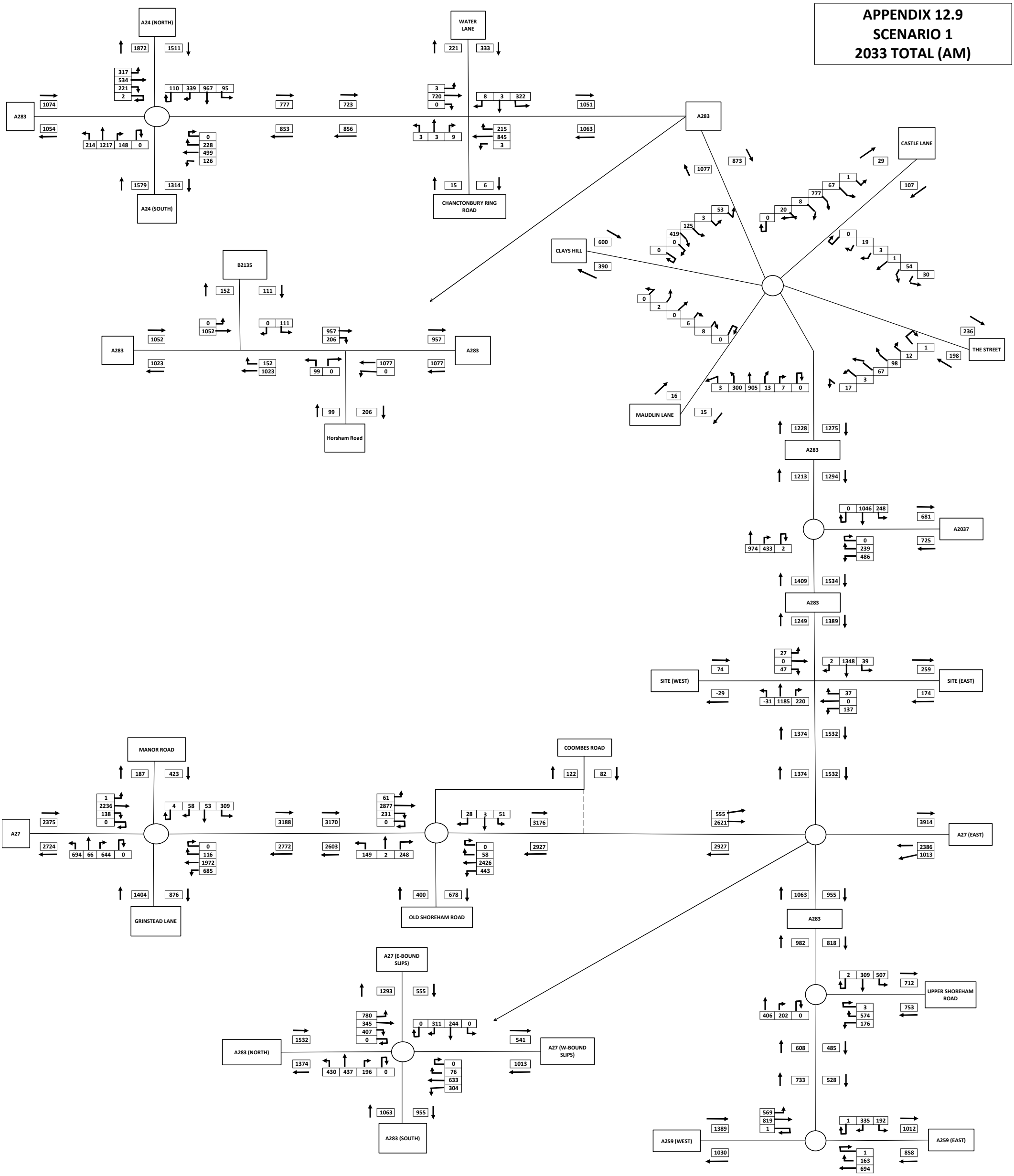
2033 TOTAL (AM)



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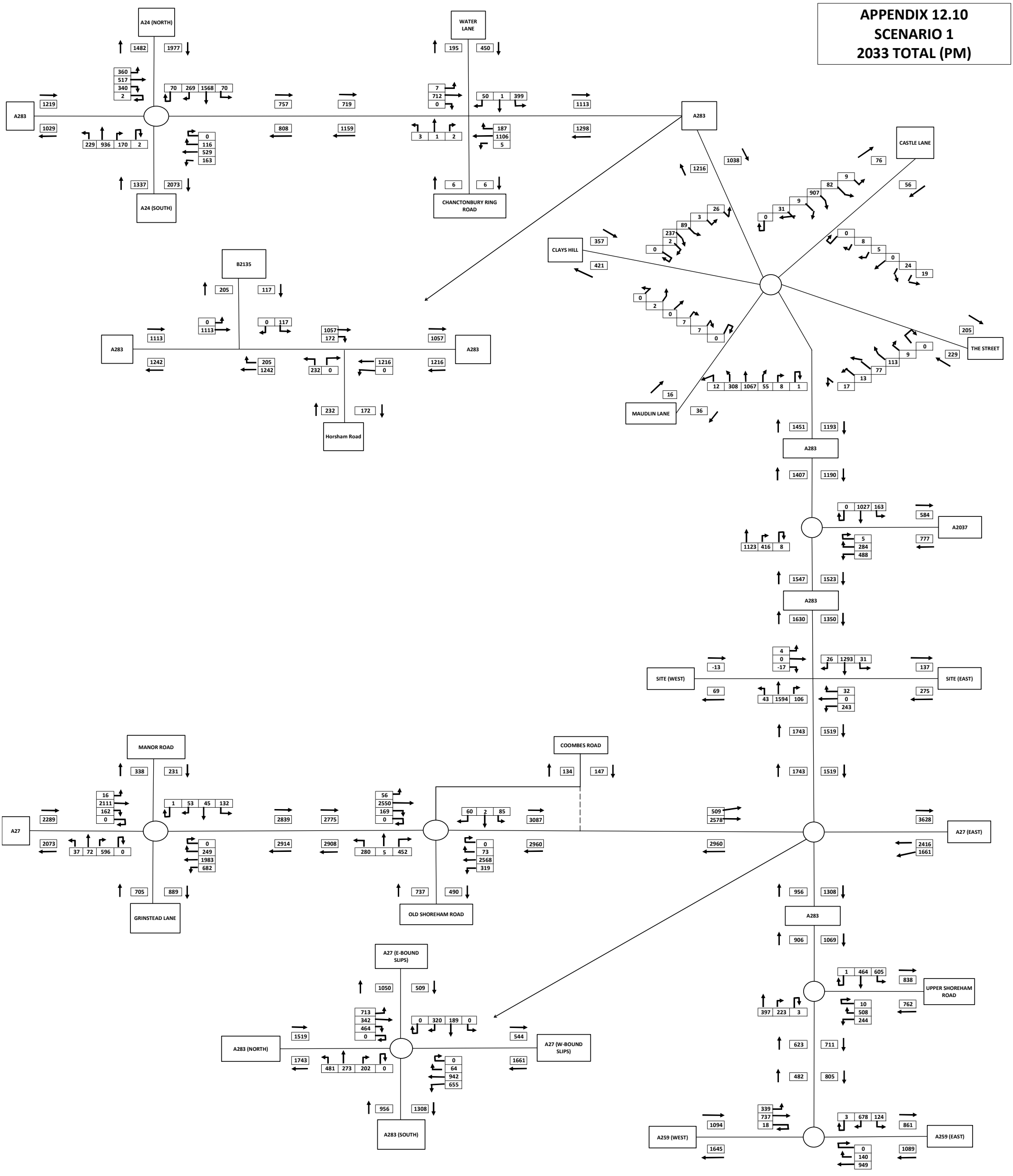
SCENARIO 1
2033 TOTAL (PM)



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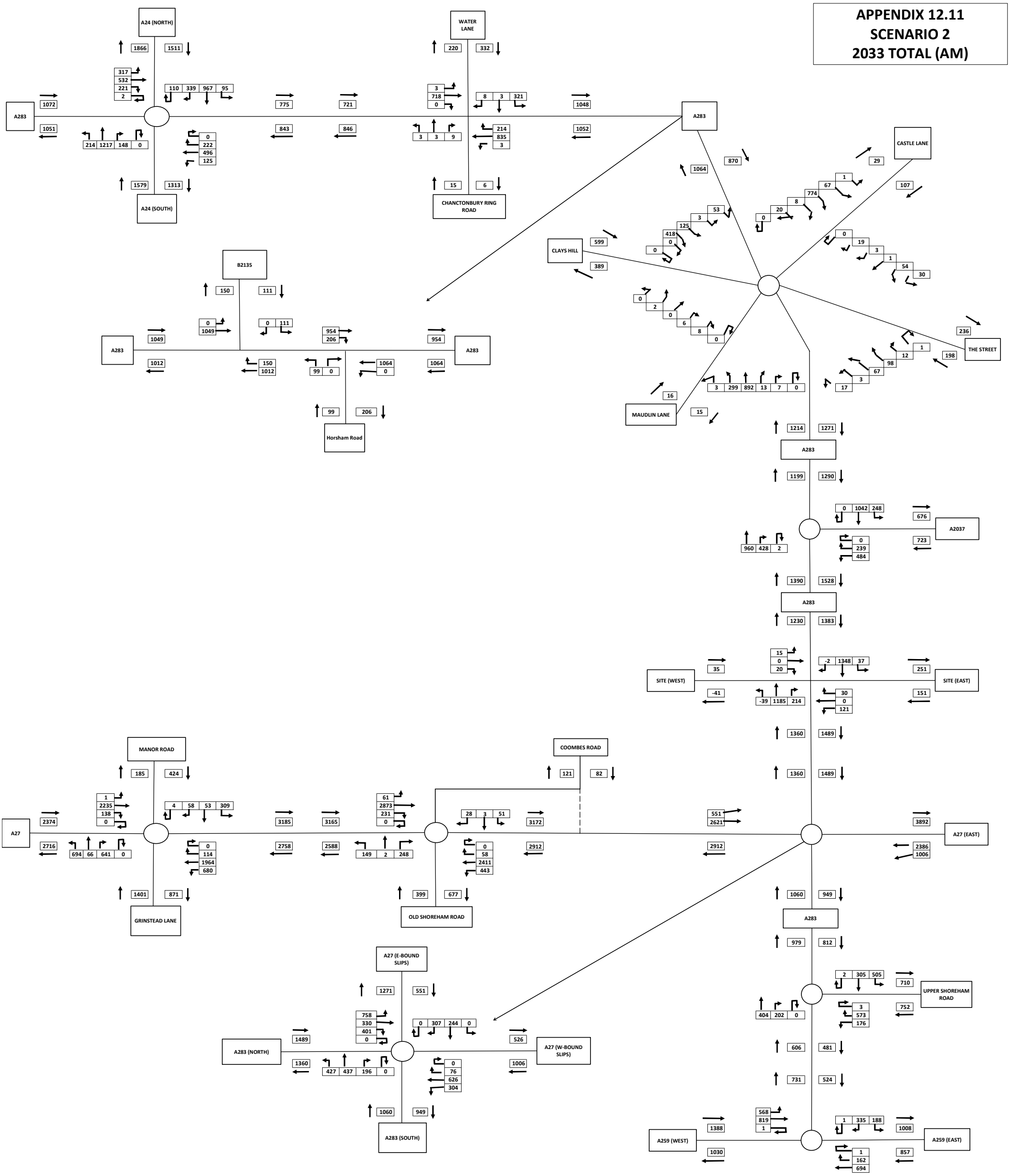

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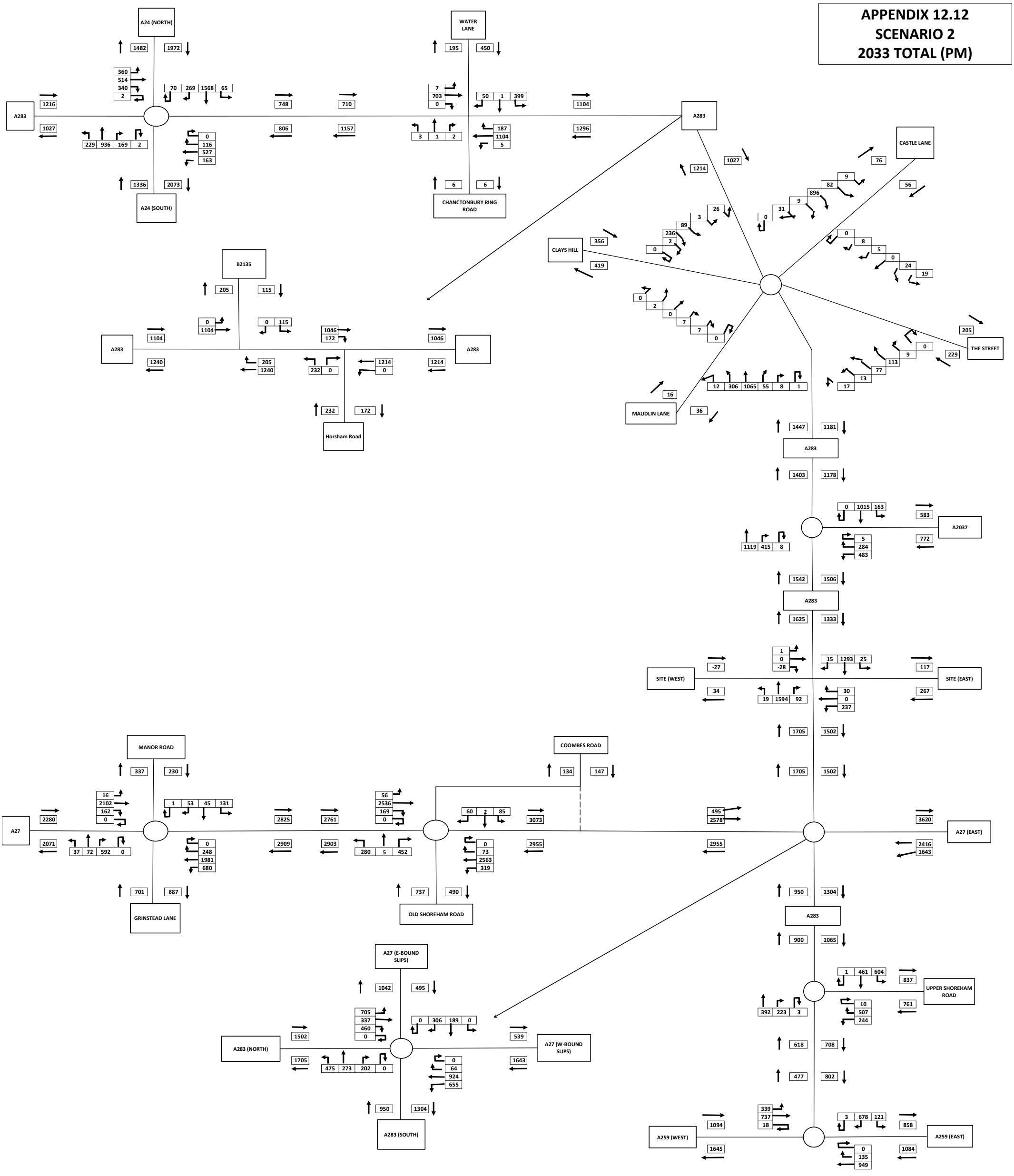

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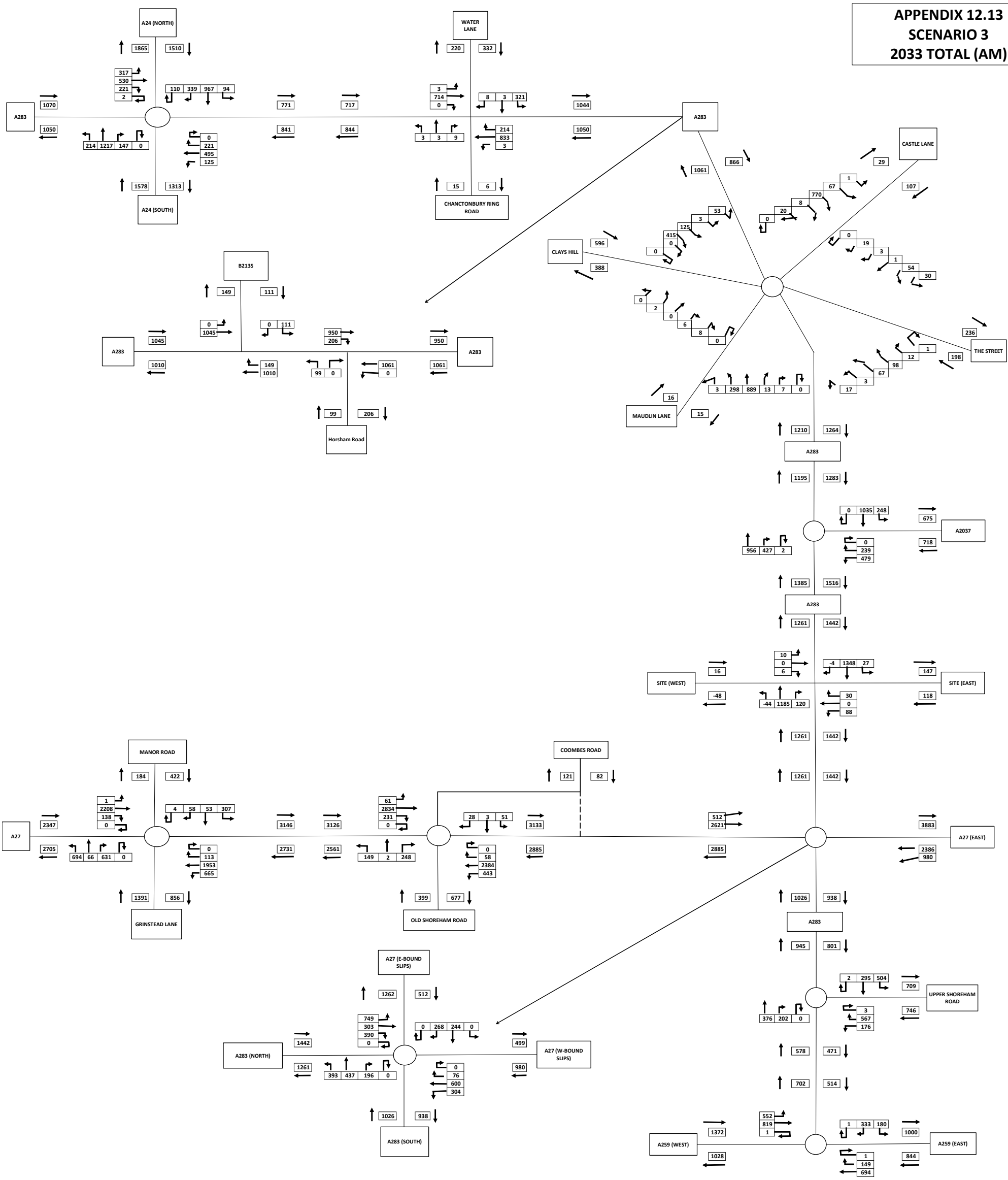

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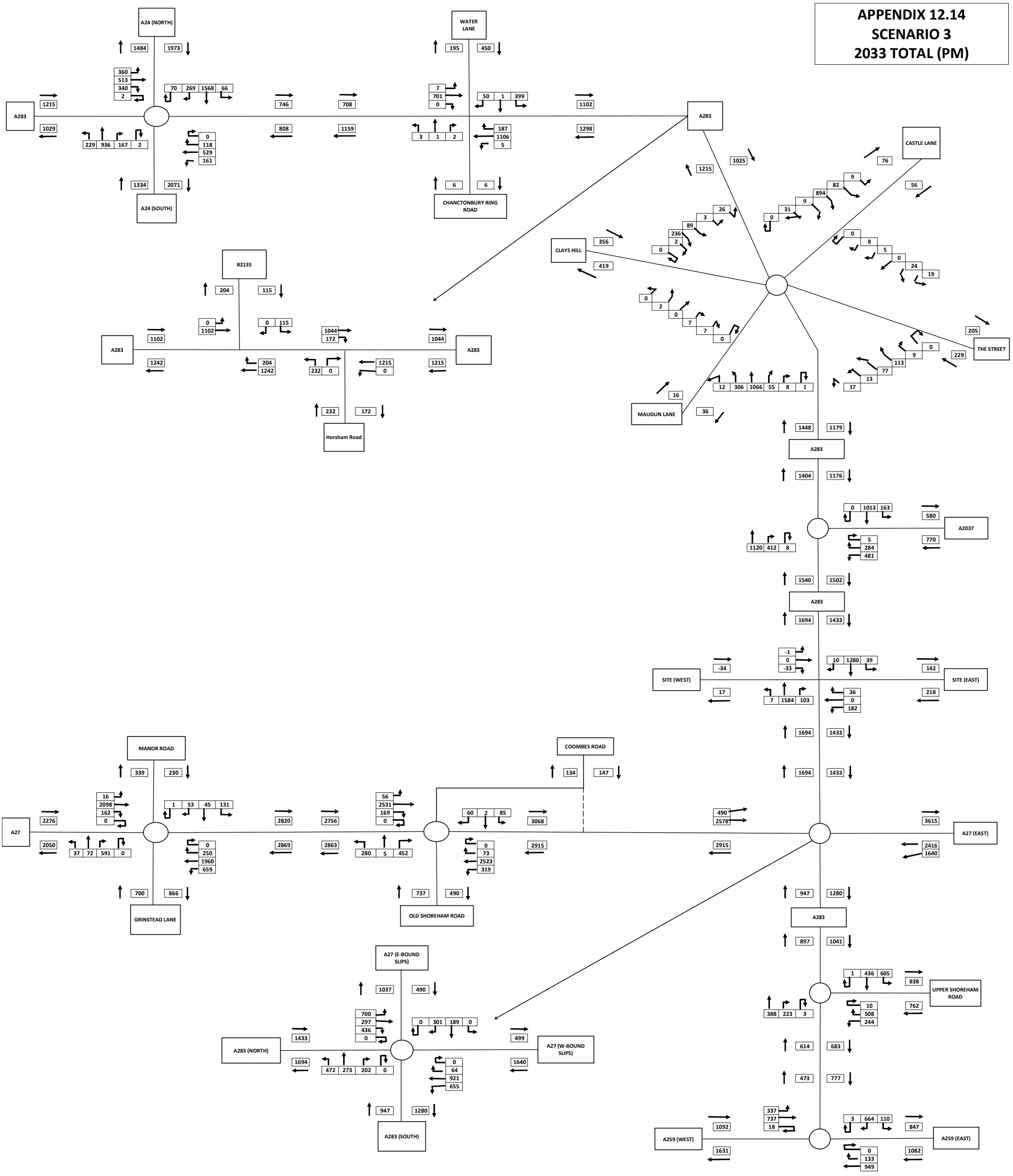

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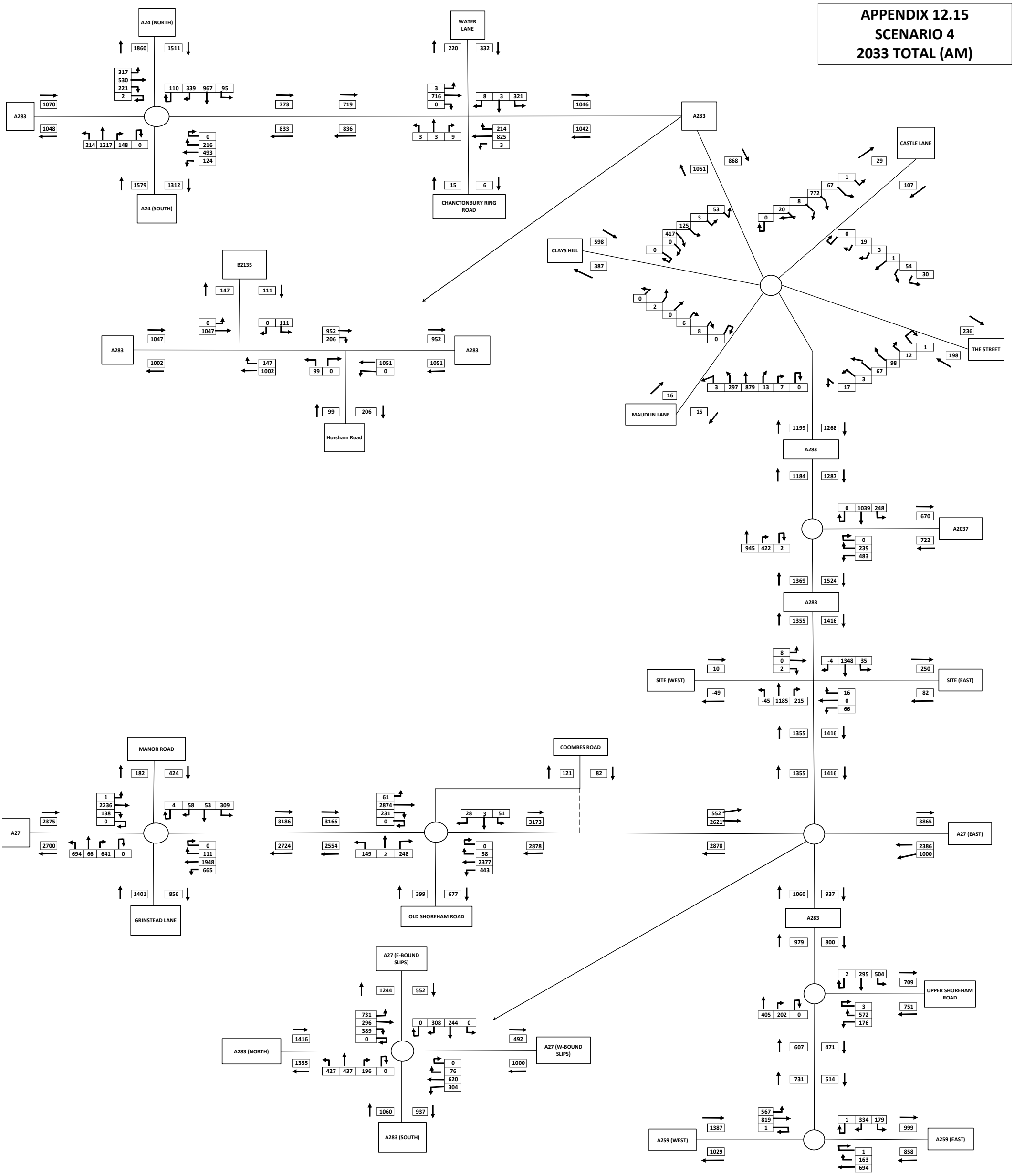

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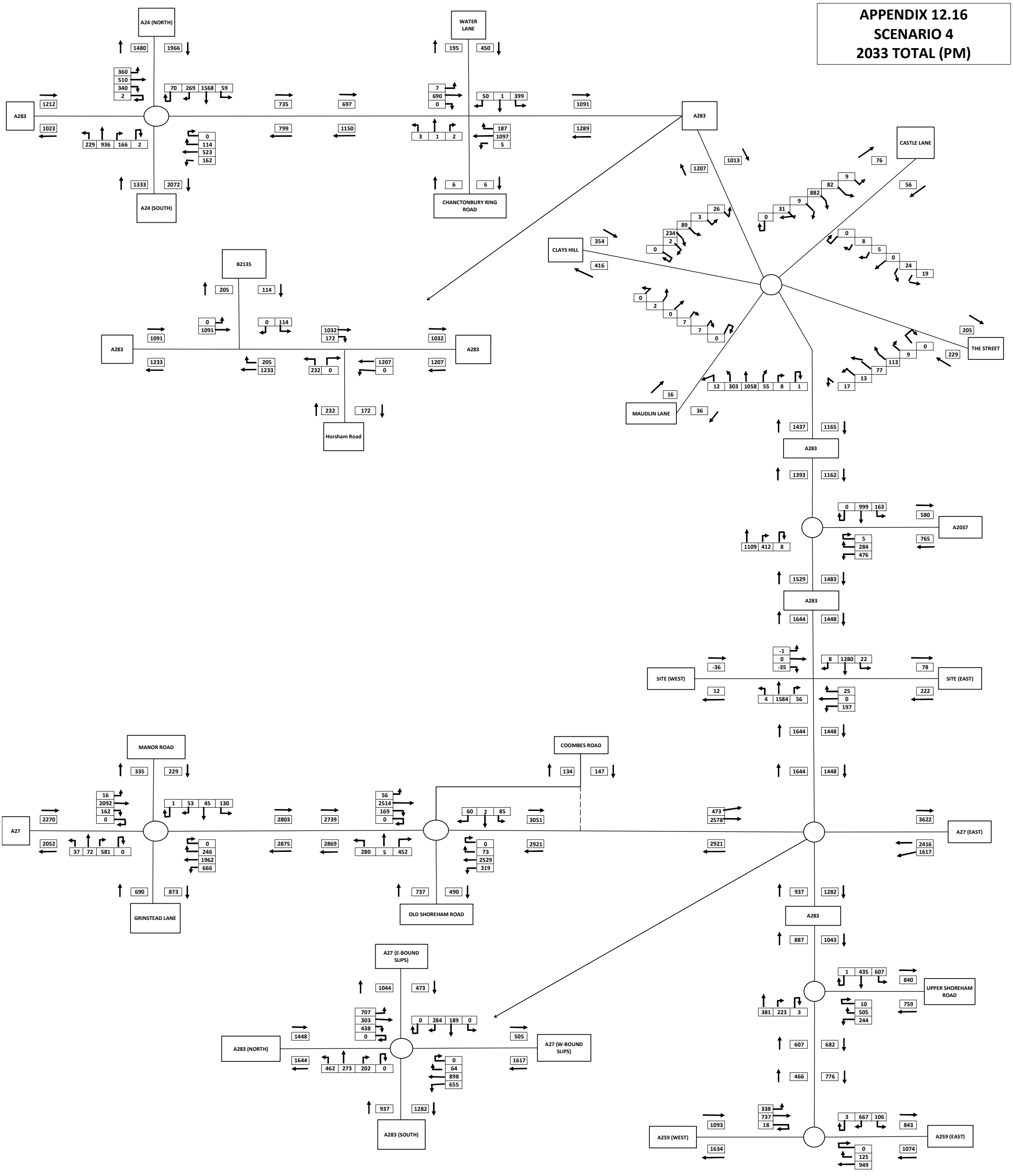
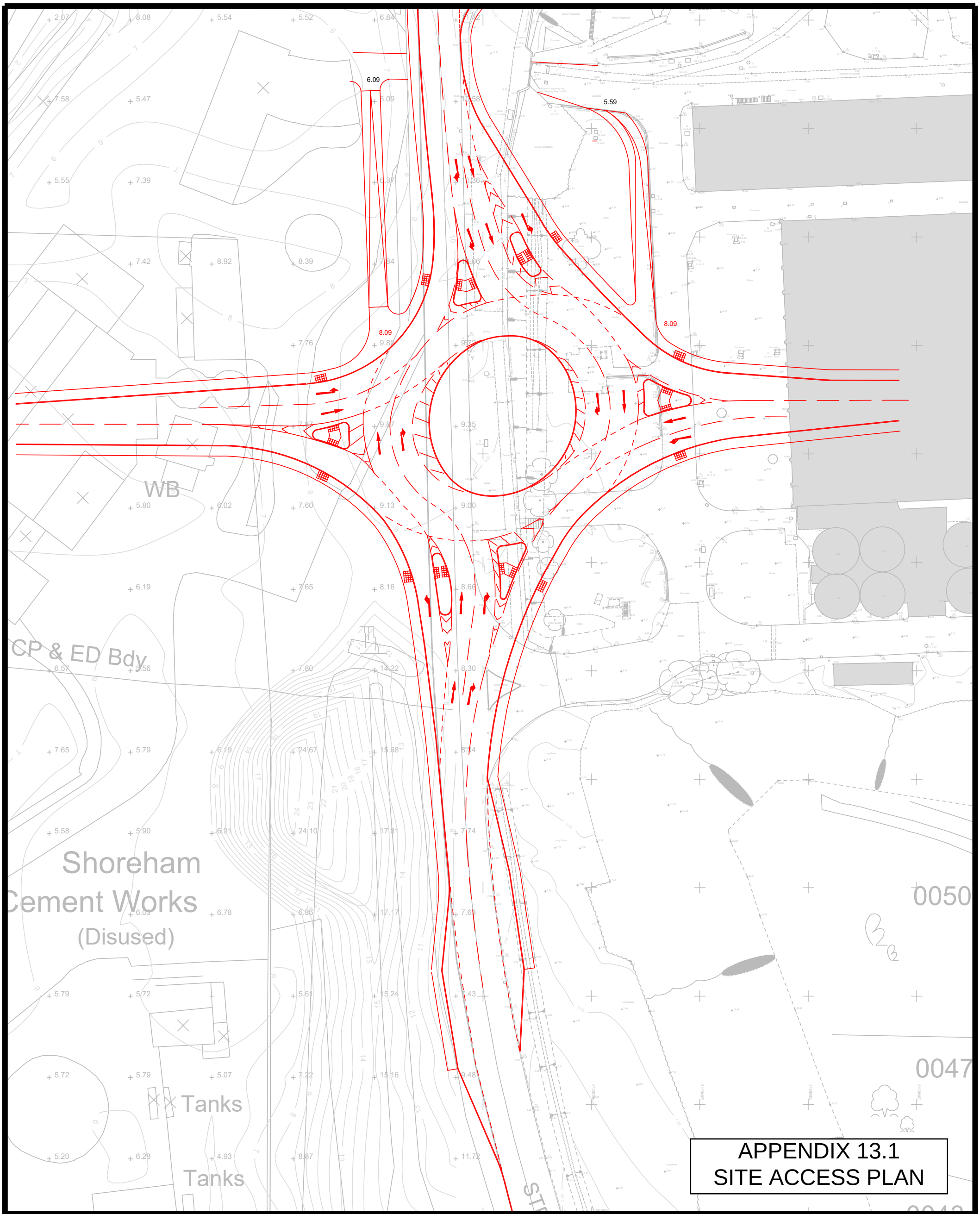


APPENDIX 13.0

PROPOSED ACCESS ARRANGEMENT

13.1 Proposed Site Access Arrangement
13.2 Stage 1 Road Safety Audit
13.3 Junction Capacity Assessment: ARCADY Output Proposed Development Scenarios



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E-Mail : CAD@ADLTRAFFIC.CO.UK

NOTES

1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION
C	10/03/2022	Amendments to roundabout for deflection .

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS, SHOREHAM

Title: SITE ACCESS ARRANGEMENTS: PEDESTRIAN AND BUS INFRASTRUCTURE

Date	Drawn		
10/03/2022	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
	5201-GP-11		C

TRAFFIC & HIGHWAYS ENGINEERING LIMITED

DESIGNER'S RESPONSE
TO STAGE 1 ROAD SAFETY AUDIT
SHOREHAM CEMENT WORKS AREA ACTION PLAN
A283 SHOREHAM ROAD
UPPER BEEDING
BN44 3TX

Prepared in accordance with Appendix F of GG119 Rev 0

www.adltraffic.co.uk

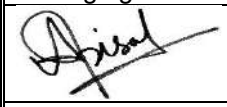
APPENDIX 13.2
STAGE 1 ROAD
SAFETY AUDIT

PROJECT DETAILS

Document Details

Report Title	Designer's Response to Stage 1 Road Safety Audit
Date	11 March 2022
Document Reference and Revision	ADL/AP/5201/11a
Prepared By:	ADL Traffic and Highways Engineering Ltd
On behalf of	South Downs National Park Authority

Authorisation Sheet

Project:	Shoreham Cement Works Area Action Plan
Report Title	Designer's Response to Stage 1 Road Safety Audit
Prepared by:	
Name	Amol Pisal
Position	Managing Director
Signed	
Organisation	ADL Traffic & Highways Engineering Ltd
Date	11.03.2022
Approved by:	
Name	TBC
Position	TBC
Signed	
Organisation	West Sussex County Council
Date	TBC

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1.2 Key Personnel 1

2.0 ROAD SAFETY AUDIT DECISION LOG 2

3.0 STATEMENTS 5

1.0 INTRODUCTION

1.1 Background to Road Safety Audit

1.1.1 As part of the Shoreham Cement Works Area Action Plan (AAP) Transport Study, ADL has commissioned at Stage 1 Road Safety Audit of the proposed site access roundabout junction.

1.1.2 The audit was undertaken in accordance with GG119 by Highway Associates and this Designer's Response has been prepared in line with the template provided at Appendix F of GG119 Design Manual for Roads and Bridges.

1.1.3 The Stage 1 Road Safety Audit is provided as Appendix A.

1.2 Key Personnel

1.2.1 The following organisations were involved in the preparation of the safety audit.

Table 1A Key Personnel

Overseeing Organisation	Amol Pisal ADL Traffic and Highways Engineering Ltd amol@adltraffic.co.uk
RSA Team	Naresh Madhavan (Team Leader) Highway Associates Robin Sawczyn Highway Associates
Design Organisation	Name - TBC West Sussex County Council

2.0 ROAD SAFETY AUDIT DECISION LOG

2.1 This section considers the matters raised in the audit, utilising the same numbering as the audit document.

Audit Reference 3.1.1

RSA Problem: LOCATION: A283 SUMMARY: Risk of excessive approach speeds Site observations indicate that current vehicular speeds along this section of the A283 within the vicinity of the proposed roundabout are relatively high. Whilst speed data has not been supplied as part of the audit brief, it is expected that 85th percentile speeds are close to the posted national speed limit with the potential for much higher speeds to be recorded which is thought to be down to the relatively straight alignment of the road in this location. Should this continue if the roundabout is installed, concern is expressed that high approach speeds could increase the risk of loss of control at the north and southbound roundabout entries.
RSA Recommendation: Ensure suitable measures are incorporated at the detailed design stage to increase the conspicuity of the roundabout, such as advanced warning and map type signage.
Design Organisation Response: It is accepted that at later planning application stage or detailed design stage, measures would be proposed and agreed with SDNPA and WSCC with regards to incorporating advanced warning and map type signage.
Overseeing Organisation Response:
Agreed RSA Action:

Audit Reference 3.1.2

RSA Problem: LOCATION: A283 SUMMARY: Risk of excessive circulating speed due to roundabout geometry Concern is expressed that due to the relative lack of deflection and multi lane approaches in the north-south directions that during less busy times, drivers may be encouraged to negotiate the roundabout at higher than desired speeds using the most direct path increasing the potential for loss of control conflict or failure to giveway type conflicts involving traffic attempting to join the circulatory carriageway from the side road arms.
RSA Recommendation: The roundabout geometry should be adjusted so that it promotes a safe distribution of circulating speeds.
Design Organisation Response: This is accepted. The geometry has been further amended as shown **RSA DR Appendix B**. This has resulted in achieving appropriate deflection.
Overseeing Organisation Response:
Agreed RSA Action:

Audit Reference 3.1.3

RSA Problem: LOCATION: A283 – Southbound exit / Proposed southbound bus stop layby SUMMARY: Risk of loss of control / conflict with buses due to alignment Notwithstanding problems 3.1.1 and 3.1.2, concern is expressed that due to the proposed alignment that there could be an increased potential for southbound traffic to cut through the proposed bus stop layby when exiting the roundabout at speed, potentially conflicting with waiting buses or striking the exit taper kerb of the layby which may result in loss of control. The situation is somewhat exacerbated by the potential for high speeds in this location.
RSA Recommendation: The bus stop layby should be relocated to a suitable position away from the roundabout exit.
Design Organisation Response: This is accepted. The southbound bus stop has been relocated further away from the roundabout.
Overseeing Organisation Response:
Agreed RSA Action:

Audit Reference 3.1.4

RSA Problem: LOCATION: Proposed roundabout SUMMARY: Risk of side swipe conflicts It is unclear as to whether the circulatory carriageway is sufficiently wide enough to allow vehicles, particularly HGVs to circulate side by side without increased risk of side swipe conflicts.
RSA Recommendation: Undertake swept path analysis to identify the exact nature of the problem. If necessary, the circulatory carriageway should be suitably widened to allow for two vehicles to simultaneously circulate.
Design Organisation Response: This is accepted. Swept path assessment as requested is provided as **RSA DR Appendix C**.
Overseeing Organisation Response:
Agreed RSA Action:

Audit Reference 3.2.1

RSA Problem:

LOCATION: Proposed roundabout

SUMMARY: Insufficient pedestrian crossing provision

Exact details of the proposed development have not been provided as part of the audit brief, however concern is expressed as to whether uncontrolled crossings are sufficient in this location in relation to likely demand. Other factors to consider are the high-speed nature of the route, multiple splitter islands which will require multi stage crossing that will potentially leave pedestrians exposed to increased danger of being struck by errant vehicles whilst waiting to cross within the splitter islands. Insufficient crossing provision could increase the risk of pedestrian to vehicular conflict.

RSA Recommendation:

A suitable pedestrian crossing assessment should be undertaken at the detailed design stage. It is noted that an existing underpass is present which is to be improved as part of the proposed works. If appropriate this should be promoted as the crossing route rather than encouraging pedestrians to cross the mainline carriageway.

Design Organisation Response:

This is accepted. The tunnel would be improved in accordance with the LTN 1/20 and would be the main pedestrian crossing route between the eastern and western part of the site and provide connection to Downs Link. Majority of the pedestrians who may choose to use the crossing points on this proposed roundabout are those who would be travelling by bus and therefore require to walk to the proposed bus layby on the A283. It should be noted that as an alternative, there could be bus stops provided on site subject to future Masterplanning. If this occurs, then the number of pedestrians using splitter islands on the roundabout would be very low.

Overseeing Organisation Response:

Agreed RSA Action:

Audit Reference 3.3.1

RSA Problem: LOCATION: A283 - Proposed roundabout approaches SUMMARY: Right turn arrows could cause driver confusion By providing right turn arrow road markings in the offside traffic lanes, that drivers, particularly those visiting from foreign countries may become confused as to the road layout, and turn right at the roundabout giveway line against the flow of traffic potentially resulting in head-on conflicts with circulating traffic.
RSA Recommendation: A review of the proposed road markings should be undertaken at the detailed design stage and a robust system of signage and road markings provided to ensure that the road layout is suitably clear to all road users.
Design Organisation Response: This is accepted. A review of the proposed road markings on the proposed roundabout would be undertaken at a later stage such as planning application stage or detailed design stage, in discussion with SDNPA and WSCC.
Overseeing Organisation Response:
Agreed RSA Action:

Audit Reference 3.6.1

RSA Problem: LOCATION: West side of A283 SUMMARY: Risk of incursion It is noted that there is a significant level difference between the A283 and existing levels to the west of the carriageway which will be made more severe by the proposed works construction. Concern is expressed that should a vehicle lose control within this location that any subsequent incursion could increase the likely casualty severity.
RSA Recommendation: A suitable risk assessment should be undertaken at the detailed design stage and mitigation implemented to protect from incursion if necessary.
Design Organisation Response: This is accepted. A suitable mitigation measure to protect vehicles from incursion. This will be discussed at a later stage such as planning application stage or detailed design stage, in discussion with SDNPA and WSCC.
Overseeing Organisation Response:
Agreed RSA Action:

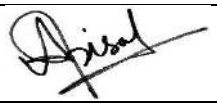
2.2 This completes the review of the matters raised in the Safety Audit and demonstrates that all matters have been addressed where appropriate.

3.0 STATEMENTS

3.1 Design Organisation

3.1.1 The following declaration has been completed on behalf of the design organisation.

Design Organisation Statement

On behalf of the design organisation, I certify that: 1) The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with Overseeing Organisation.	
Name:	Amol Pisal
Signed:	
Position:	Managing Director
Organisation:	ADL Traffic and Highways Engineering Ltd
Date:	11.03.2022

3.2 Overseeing Organisation

3.2.1 The following declaration has been completed on behalf of the overseeing organisation.

Overseeing Organisation Statement

On behalf of the design organisation, I certify that: 1) The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and 2) The agreed RSA action will be progressed.	
Name:	
Signed:	
Position:	
Organisation:	
Date:	

Shoreham Cement Works –
Proposed Highway Works
Stage 1 Road Safety Audit

Prepared by

Distribution List

1. Alex Painting – ADL Traffic
2. File Copy

REPORT NUMBER 2022/ADL/1565

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APPENDIX A

Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
FINAL	09/03/22	N Madhavan	R Sawczyn	L Madhavan	For Issue

CONTENTS

1 INTRODUCTION 1
2 ITEMS RAISED BY PREVIOUS AUDITS AND REPORTS 3
3 ITEMS RAISED BY THIS AUDIT 4
4 AUDIT TEAM STATEMENT 7

Appendix A: Drawings and documents provided

Appendix B: Plan of items raised by this audit

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1 INTRODUCTION

1.1 This report results from a Stage 1 Road Safety Audit carried out relating to the provision of a new 4 arm roundabout, off A283 Steyning Road, Shoreham. The audit was carried out during March 2022.

1.2 The audit team consisted of:

Team Leader: Naresh Madhavan MCIHT, MSoRSA EU RSA Cert. Comp
Director
Highway Associates

Team Member: Robin Sawczyn BEng MCIHT MSoRSA
Senior Road Safety Engineer
Highway Associates

1.3 The audit took place at the offices of Highway Associates, Chester. The Road Safety Audit was undertaken in accordance with the Road Safety Audit Brief provided by Alex Painting of ADL Traffic. The Road Safety Audit comprised an examination of the documents provided and these are listed in Appendix A.

The site was visited at the following times/conditions:

Day/Date	Time	Weather Con	Traffic Flow
Sun 6th Mar 2022	15:30 – 16:10hrs	Dry/Fine	Ave

1.4 The terms of reference for this audit are as given in GG119, Design Manual for Roads and Bridges. The scheme has been examined and this report compiled only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. Any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.

1.5 If relevant within this report the generic term “pedestrians” can include walking pedestrians, wheelchair users, dismounted cyclists, the blind, partially sighted, mobility impaired and people

with prams or pushchairs. Highway Maintenance Operatives are also included within this term. Where a problem is specific to one or more of these vulnerable groups then appropriate reference will be made in the report.

1.6 Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems identified. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with GG119, and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

1.7 This Road Safety Audit makes allowance for the fact that strategic decisions on matters such as route choice, junction type, standard of provision and approved Departures from Standards already reflect an appropriate balance of a number of factors including road safety.

1.8 The Audit Team have not been made aware of any possible Departure from Standards.

1.9 The reader is reminded that a Road Safety Audit is not limited to the new works alone where there are features that are considered by the Audit Team to affect the general safety in the area. Section 3 of this report lists 'Problems' identified from the drawings and as a result of the site visit relating to the proposed changes to the highway layout that are directly, or indirectly, related to the area (e.g. features/matters within the proposed works or immediate surrounds which the Audit Team feel should be brought to the attention of the Designer or other organisations even though they might not pose an immediate risk associated with the proposed works), and which are considered by the Audit Team to warrant attention under the subject proposals, generally by the maintaining authority. On occasions there are more sensitive issues or issues that fall outside the audit brief but which are of such a nature that Auditors feel should be specifically brought to the attention of the authorities - such issues, if they arise, are usually dealt with in detail in separate correspondence.

2 ITEMS RAISED BY PREVIOUS AUDITS AND REPORTS

2.1 It is understood that no previous road safety audits have been undertaken in relation to this scheme.

3 ITEMS RAISED BY THIS AUDIT

3.1 General

3.1.1 PROBLEM

LOCATION: A283

SUMMARY: Risk of excessive approach speeds

Site observations indicate that current vehicular speeds along this section of the A283 within the vicinity of the proposed roundabout are relatively high. Whilst speed data has not been supplied as part of the audit brief, it is expected that 85th percentile speeds are close to the posted national speed limit with the potential for much higher speeds to be recorded which is thought to be down to the relatively straight alignment of the road in this location. Should this continue if the roundabout is installed, concern is expressed that high approach speeds could increase the risk of loss of control at the north and southbound roundabout entries.

RECOMMENDATION

Ensure suitable measures are incorporated at the detailed design stage to increase the conspicuity of the roundabout, such as advanced warning and map type signage.

3.1.2 PROBLEM

LOCATION: A283

SUMMARY: Risk of excessive circulating speed due to roundabout geometry

Concern is expressed that due to the relative lack of deflection and multi lane approaches in the north-south directions that during less busy times, drivers may be encouraged to negotiate the roundabout at higher than desired speeds using the most direct path increasing the potential for loss of control conflict or failure to giveway type conflicts involving traffic attempting to join the circulatory carriageway from the side road arms.

RECOMMENDATION

The roundabout geometry should be adjusted so that it promotes a safe distribution of circulating speeds.

3.1.3 PROBLEM

LOCATION: A283 – Southbound exit / Proposed southbound bus stop layby

SUMMARY: Risk of loss of control / conflict with buses due to alignment

Notwithstanding problems 3.1.1 and 3.1.2, concern is expressed that due to the proposed alignment that there could be an increased potential for southbound traffic to cut through the proposed bus stop layby when exiting the roundabout at speed, potentially conflicting with waiting buses or striking the exit taper kerb of the layby which may result in loss of control. The situation is somewhat exacerbated by the potential for high speeds in this location.

RECOMMENDATION

The bus stop layby should be relocated to a suitable position away from the roundabout exit.

3.1.4 PROBLEM

LOCATION: Proposed roundabout

SUMMARY: Risk of side swipe conflicts

It is unclear as to whether the circulatory carriageway is sufficiently wide enough to allow vehicles, particularly HGVs to circulate side by side without increased risk of side swipe conflicts.

RECOMMENDATION

Undertake swept path analysis to identify the exact nature of the problem. If necessary, the circulatory carriageway should be suitably widened to allow for two vehicles to simultaneously circulate.

3.2 Non Motorised Road User Provision

3.2.1 PROBLEM

LOCATION: Proposed roundabout

SUMMARY: Insufficient pedestrian crossing provision

Exact details of the proposed development have not been provided as part of the audit brief, however concern is expressed as to whether uncontrolled crossings are sufficient in this location in relation to likely demand. Other factors to consider are the high-speed nature of the route, multiple splitter islands which will require multi stage crossing that will potentially leave pedestrians exposed to increased danger of being struck by errant vehicles whilst waiting to cross within the splitter islands. Insufficient crossing provision could increase the risk of pedestrian to vehicular conflict.

RECOMMENDATION

A suitable pedestrian crossing assessment should be undertaken at the detailed design stage. It is noted that an existing underpass is present which is to be improved as part of the proposed works. If appropriate this should be promoted as the crossing route rather than encouraging pedestrians to cross the mainline carriageway.

3.3 Road Signs and Markings

3.3.1 PROBLEM

LOCATION: A283 - Proposed roundabout approaches

SUMMARY: Right turn arrows could cause driver confusion

By providing right turn arrow road markings in the offside traffic lanes, that drivers, particularly those visiting from foreign countries may become confused as to the road layout, and turn right at the roundabout giveway line against the flow of traffic potentially resulting in head-on conflicts with circulating traffic.

RECOMMENDATION

A review of the proposed road markings should be undertaken at the detailed design stage and a robust system of signage and road markings provided to ensure that the road layout is suitably clear to all road users.

3.4 Lighting and Signals

No comments at this stage

3.5 Landscaping

No comments at this stage

3.6 Protective Aids

3.6.1 PROBLEM

LOCATION: West side of A283

SUMMARY: Risk of incursion

It is noted that there is a significant level difference between the A283 and existing levels to the west of the carriageway which will be made more severe by the proposed works construction. Concern is expressed that should a vehicle lose control within this location that any subsequent incursion could increase the likely casualty severity.

RECOMMENDATION

A suitable risk assessment should be undertaken at the detailed design stage and mitigation implemented to protect from incursion if necessary.

3.7 Surface Characteristics and Drainage

No comments at this stage

4 AUDIT TEAM STATEMENT

We certify that this Audit has been carried out in accordance with the guidelines in GG119.

AUDIT TEAM LEADER

Naresh Madhavan MCIHT MSoRSA EU RSA Cert. Comp
Director
Highway Associates
International House
Aviation Park
Flint Road
Chester
CH4 0GZ

Signed: 

Date: 09/03/22

AUDIT TEAM MEMBER

Robin Sawczyn BEng MCIHT MSoRSA
Senior Road Safety Engineer
Highway Associates
International House
Aviation Park
Flint Road
Chester
CH4 0GZ

Signed: 

Date: 09/03/22

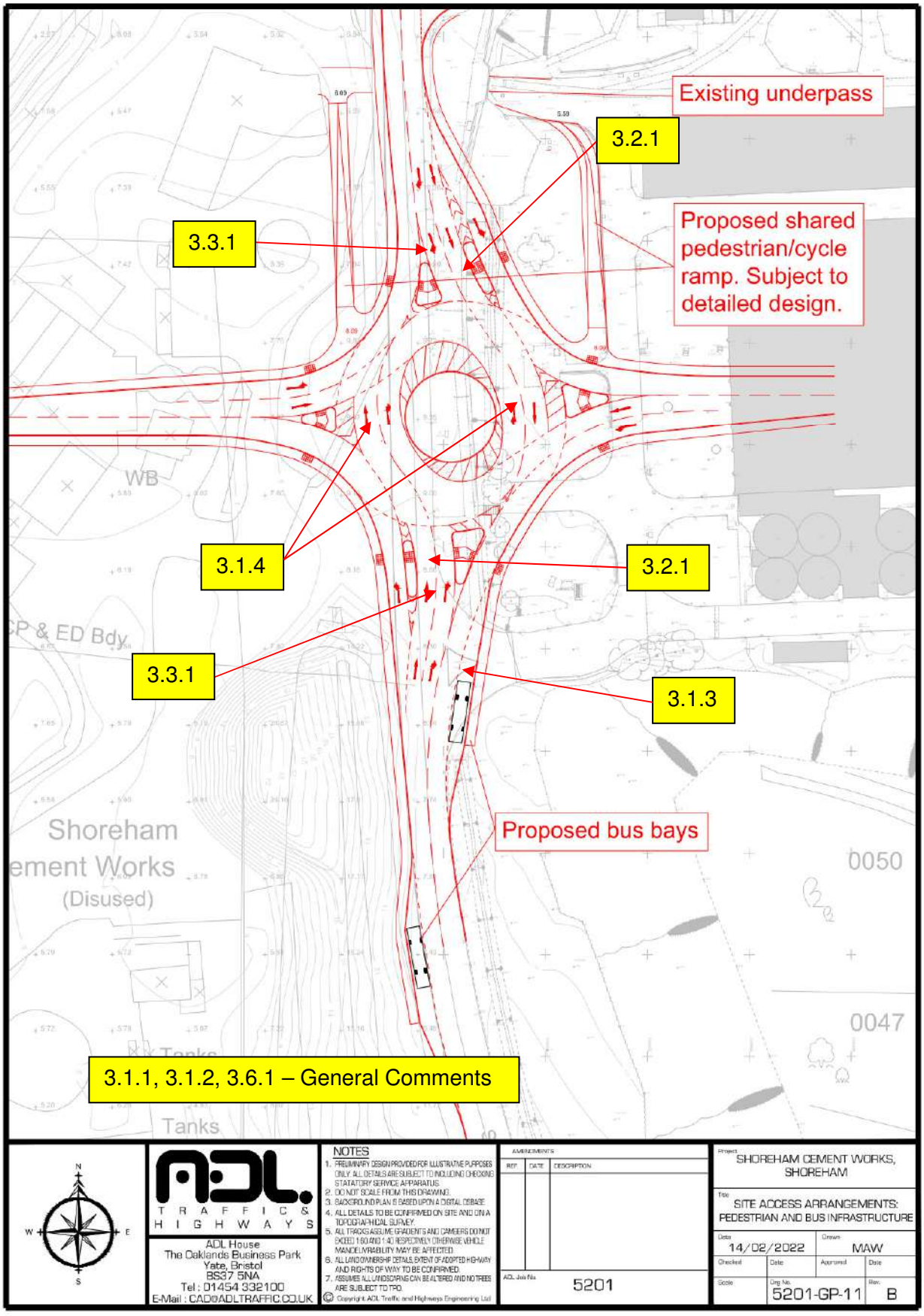
APPENDIX A

DRAWINGS AND DOCUMENTS PROVIDED

DRAWING NUMBER OR REFERENCE	TITLE	DATE
	RSA1 Brief	01/03/22
5201-GP-11 B	Site Access Arrangements	14/02/22

APPENDIX B

PLAN OF ITEMS RAISED BY THIS AUDIT


Existing underpass
3.2.1
3.3.1
Proposed shared pedestrian/cycle ramp. Subject to detailed design.
WB
3.1.4
3.2.1
3.3.1
3.1.3
Proposed bus bays
Shoreham
ement Works
(Disused)
0050
0047
Tanks
3.1.1, 3.1.2, 3.6.1 – General Comments
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T R A F F I C &
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ADL House
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Yate, Bristol
BS37 5NA
Tel : 01454 332100
E-Mail : CAD@ADLTRAFFIC.CO.UK
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6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.
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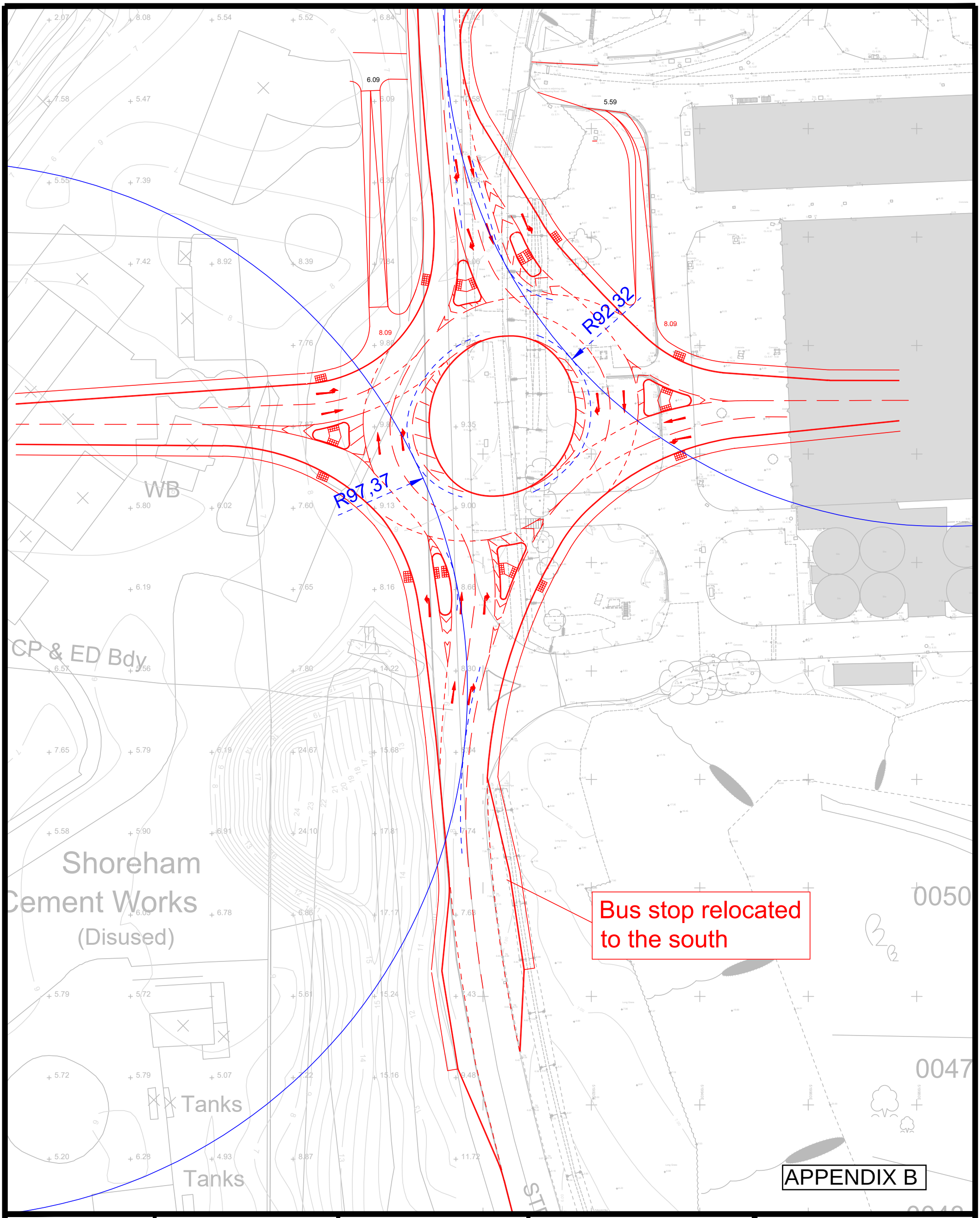
AMENDMENTS
REF | DATE | DESCRIPTION
ADL Job No. 5201
Project: SHOREHAM CEMENT WORKS, SHOREHAM
Title: SITE ACCESS ARRANGEMENTS: PEDESTRIAN AND BUS INFRASTRUCTURE
Date: 14/02/2022
Drawn: MAW
Checked | Date | Approved | Date
Scale | Dwg No. 5201-GP-11 | Rev. B



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AMENDMENTS

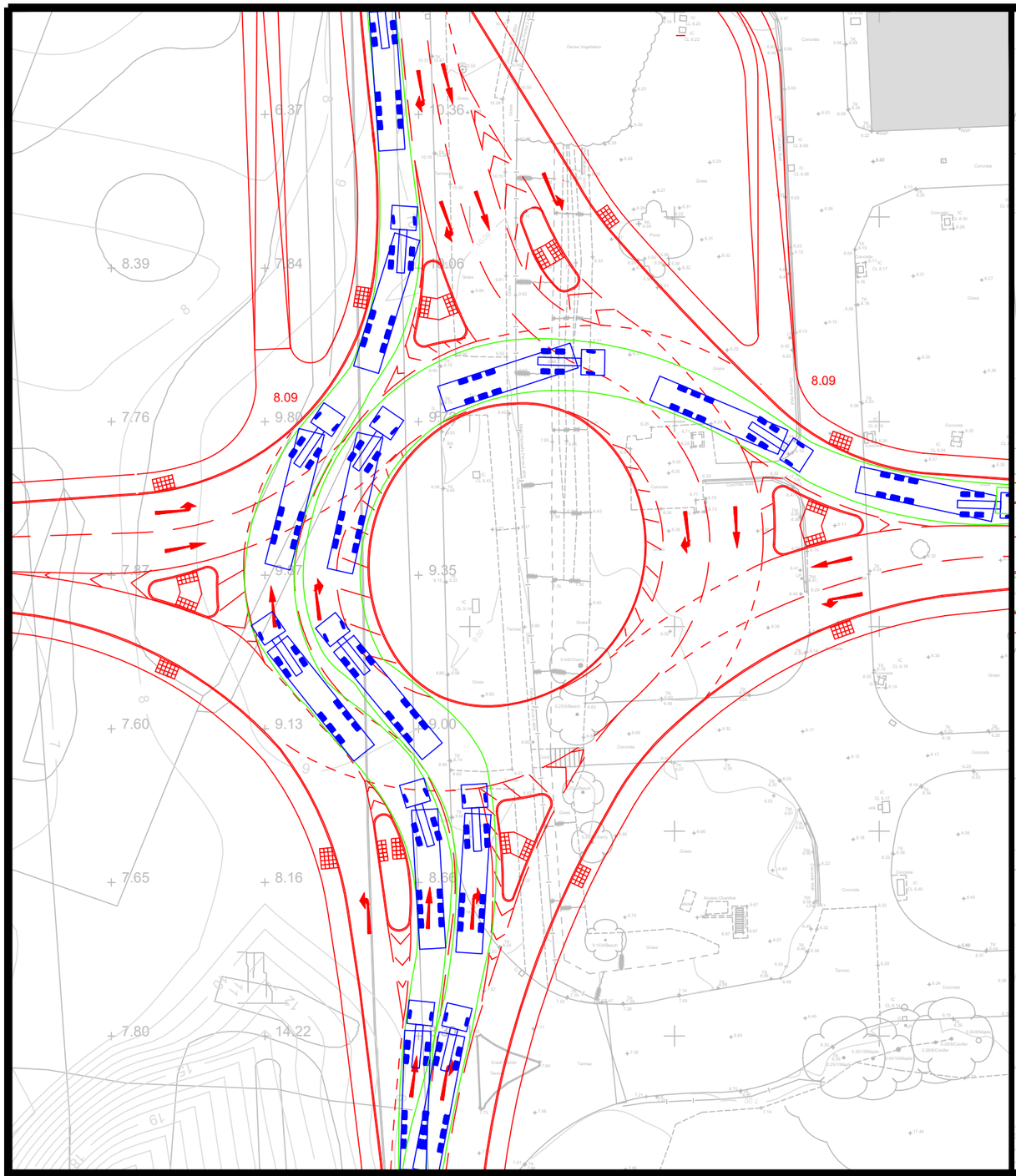
REF.	DATE	DESCRIPTION
C	10/03/2022	Amendments to roundabout for deflection .

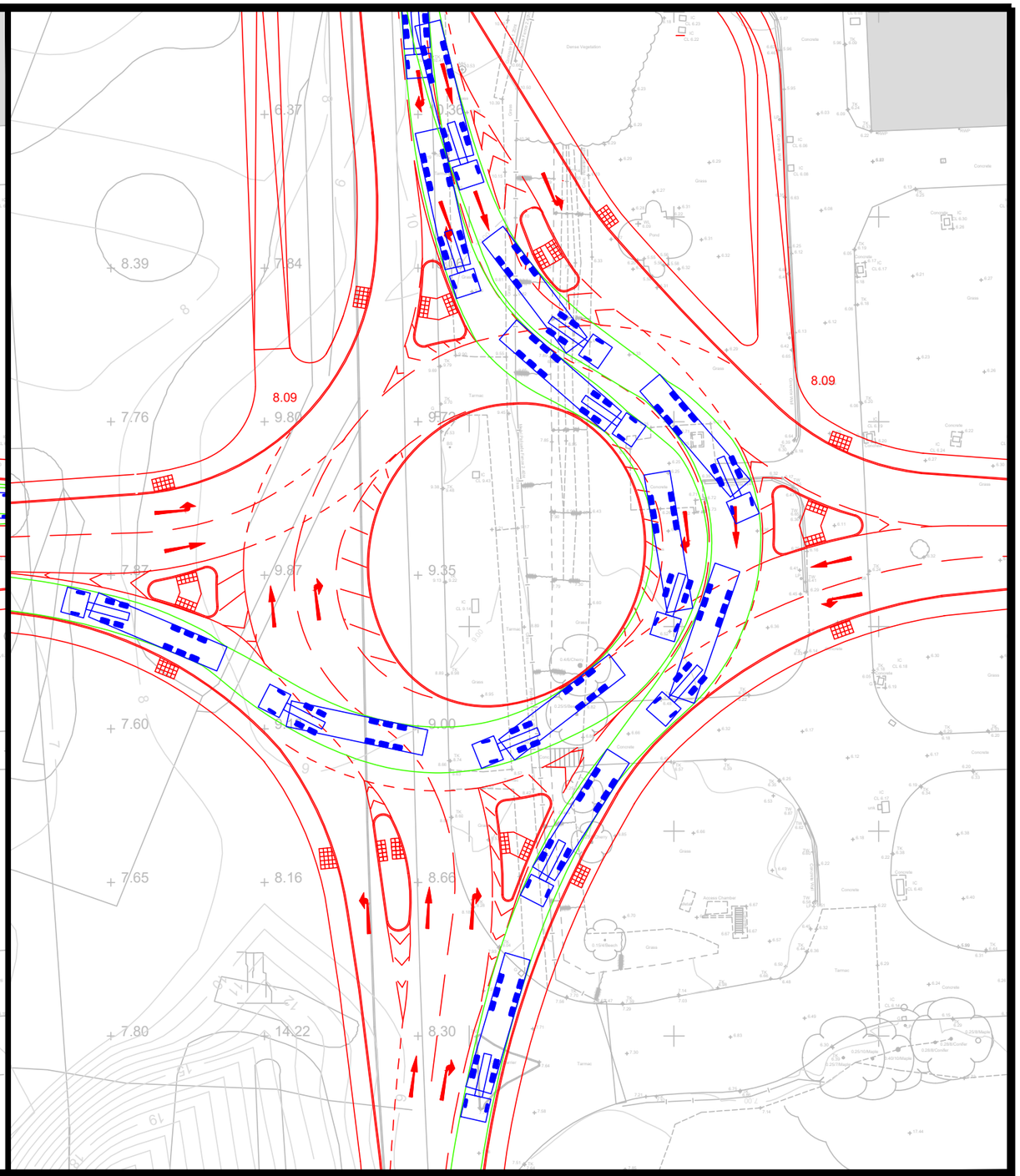
ADL Job No. 5201

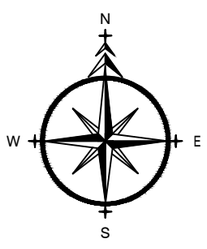
Project: SHOREHAM CEMENT WORKS, SHOREHAM

Title: SITE ACCESS ARRANGEMENTS: PEDESTRIAN AND BUS INFRASTRUCTURE

Date	Drawn		
10/03/2022	MAW		
Checked	Date	Approved	Date
Scale	Drg No.	Rev.	
	5201-GP-11	C	







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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS, SHOREHAM

Title: TRACK ANALYSIS: 16.5m ARTICULATED LORRY

Date	Drawn		
11.03.2022	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
1:500 @ A3	APPENDIX C		

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: 4-arm site access roundabout.j9
Path: D:\5201 Shoreham\4-arm Roundabout
Report generation date: 10/01/2022 16:19:39

»Scenario 1, AM
»Scenario 1, PM
»Scenario 2, AM
»Scenario 2, PM
»Scenario 3, AM
»Scenario 3, PM
»Scenario 4, AM
»Scenario 4, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1														
1 - A283 (North)	2.2	5.08	0.68	A	4.55	A	35 % [1 - A283 (North)]	1.7	4.03	0.62	A	5.59	A	23 % [3 - A283 (South)]
2 - Eastern Site Access	0.3	5.06	0.22	A				0.5	5.45	0.32	A			
3 - A283 (South)	1.7	3.99	0.64	A				3.6	6.82	0.79	A			
4 - Western Site Access	0.1	4.36	0.11	A				0.1	5.37	0.05	A			
Scenario 2														
1 - A283 (North)	2.0	4.84	0.67	A	4.37	A	38 % [1 - A283 (North)]	1.6	3.85	0.61	A	5.18	A	26 % [3 - A283 (South)]
2 - Eastern Site Access	0.2	4.73	0.18	A				0.4	5.24	0.30	A			
3 - A283 (South)	1.7	3.88	0.63	A				3.2	6.20	0.77	A			
4 - Western Site Access	0.1	4.10	0.07	A				0.0	5.16	0.03	A			
Scenario 3														
1 - A283 (North)	1.8	4.23	0.64	A	3.88	A	47 % [1 - A283 (North)]	1.6	3.86	0.61	A	5.08	A	27 % [3 - A283 (South)]
2 - Eastern Site Access	0.2	4.45	0.14	A				0.3	4.75	0.24	A			
3 - A283 (South)	1.4	3.46	0.58	A				3.1	6.08	0.76	A			
4 - Western Site Access	0.0	3.70	0.04	A				0.0	5.14	0.02	A			
Scenario 4														
1 - A283 (North)	2.0	4.72	0.67	A	4.25	A	40 % [1 - A283 (North)]	1.4	3.61	0.59	A	4.66	A	32 % [3 - A283 (South)]
2 - Eastern Site Access	0.1	4.22	0.10	A				0.3	4.76	0.25	A			
3 - A283 (South)	1.6	3.80	0.62	A				2.8	5.47	0.74	A			
4 - Western Site Access	0.0	3.93	0.04	A				0.0	4.82	0.02	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 13.3
JUNCTION CAPACITY ASSESSMENT: ARCADY OUTPUTS
PROPOSED DEVELOPMENT SCENARIOS

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	12/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Scenario 1	AM	ONE HOUR	07:45	09:15	15	✓
D2	Scenario 1	PM	ONE HOUR	16:45	18:15	15	✓
D3	Scenario 2	AM	ONE HOUR	07:45	09:15	15	✓
D4	Scenario 2	PM	ONE HOUR	16:45	18:15	15	✓
D5	Scenario 3	AM	ONE HOUR	07:45	09:15	15	✓
D6	Scenario 3	PM	ONE HOUR	16:45	18:15	15	✓
D7	Scenario 4	AM	ONE HOUR	07:45	09:15	15	✓
D8	Scenario 4	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Eastern Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A283 (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Western Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.55	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	1 - A283 (North)

Arms

Arms

Arm	Name	Description
1	A283 (North)	
2	Eastern Site Access	
3	A283 (South)	
4	Western Site Access	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 (North)	3.65	11.70	28.9	30.0	45.0	22.0	
2 - Eastern Site Access	3.65	7.30	33.0	30.0	45.0	22.0	
3 - A283 (South)	3.65	11.64	31.7	30.0	45.0	26.0	
4 - Western Site Access	3.65	7.63	37.0	26.0	45.0	26.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 (North)	0.797	2501
2 - Eastern Site Access	0.701	2008
3 - A283 (South)	0.797	2520
4 - Western Site Access	0.704	2053

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Scenario 1	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 (North)		ONE HOUR	✓	1397	100.000
2 - Eastern Site Access		ONE HOUR	✓	179	100.000
3 - A283 (South)		ONE HOUR	✓	1432	100.000
4 - Western Site Access		ONE HOUR	✓	96	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	40	1348	9
	2 - Eastern Site Access	37	0	142	0
	3 - A283 (South)	1186	224	0	22
	4 - Western Site Access	29	0	67	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	0	0	0
	2 - Eastern Site Access	0	0	0	0
	3 - A283 (South)	0	0	0	0
	4 - Western Site Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 (North)	0.68	5.08	2.2	A	1282	1923
2 - Eastern Site Access	0.22	5.06	0.3	A	164	246
3 - A283 (South)	0.64	3.99	1.7	A	1314	1971
4 - Western Site Access	0.11	4.36	0.1	A	88	132

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1052	263	218	2327	0.452	1048	940	0.0	0.8	2.809	A
2 - Eastern Site Access	135	34	1069	1258	0.107	134	198	0.0	0.1	3.200	A
3 - A283 (South)	1078	270	35	2492	0.433	1075	1168	0.0	0.8	2.535	A
4 - Western Site Access	72	18	1086	1288	0.056	72	23	0.0	0.1	2.959	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1256	314	261	2293	0.548	1254	1124	0.8	1.2	3.462	A
2 - Eastern Site Access	161	40	1279	1111	0.145	161	237	0.1	0.2	3.786	A
3 - A283 (South)	1287	322	41	2487	0.518	1286	1398	0.8	1.1	2.995	A
4 - Western Site Access	86	22	1300	1138	0.076	86	28	0.1	0.1	3.421	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1538	385	320	2246	0.685	1534	1376	1.2	2.1	5.032	A
2 - Eastern Site Access	197	49	1564	911	0.216	197	290	0.2	0.3	5.034	A
3 - A283 (South)	1577	394	51	2480	0.636	1574	1710	1.1	1.7	3.964	A
4 - Western Site Access	106	26	1590	933	0.113	106	34	0.1	0.1	4.347	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1538	385	320	2246	0.685	1538	1378	2.1	2.2	5.085	A
2 - Eastern Site Access	197	49	1568	909	0.217	197	291	0.3	0.3	5.058	A
3 - A283 (South)	1577	394	51	2480	0.636	1577	1714	1.7	1.7	3.987	A
4 - Western Site Access	106	26	1593	931	0.113	106	34	0.1	0.1	4.359	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1256	314	262	2292	0.548	1260	1128	2.2	1.2	3.500	A
2 - Eastern Site Access	161	40	1284	1108	0.145	161	238	0.3	0.2	3.808	A
3 - A283 (South)	1287	322	41	2487	0.518	1290	1404	1.7	1.1	3.013	A
4 - Western Site Access	86	22	1303	1135	0.076	86	28	0.1	0.1	3.431	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1052	263	219	2326	0.452	1053	944	1.2	0.8	2.830	A
2 - Eastern Site Access	135	34	1074	1255	0.107	135	199	0.2	0.1	3.216	A
3 - A283 (South)	1078	270	35	2492	0.433	1079	1174	1.1	0.8	2.551	A
4 - Western Site Access	72	18	1091	1285	0.056	72	23	0.1	0.1	2.969	A

Scenario 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Eastern Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A283 (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Western Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	5.59	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	23	3 - A283 (South)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Scenario 1	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 (North)		ONE HOUR	✓	1351	100.000
2 - Eastern Site Access		ONE HOUR	✓	280	100.000
3 - A283 (South)		ONE HOUR	✓	1763	100.000
4 - Western Site Access		ONE HOUR	✓	34	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	31	1293	27
	2 - Eastern Site Access	32	0	248	0
	3 - A283 (South)	1593	111	0	59
	4 - Western Site Access	8	0	26	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	0	0	0
	2 - Eastern Site Access	0	0	0	0
	3 - A283 (South)	0	0	0	0
	4 - Western Site Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 (North)	0.62	4.03	1.7	A	1240	1860
2 - Eastern Site Access	0.32	5.45	0.5	A	257	385
3 - A283 (South)	0.79	6.82	3.6	A	1618	2427
4 - Western Site Access	0.05	5.37	0.1	A	31	47

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1017	254	103	2419	0.420	1014	1225	0.0	0.7	2.557	A
2 - Eastern Site Access	211	53	1010	1299	0.162	210	107	0.0	0.2	3.303	A
3 - A283 (South)	1327	332	44	2485	0.534	1323	1176	0.0	1.1	3.088	A
4 - Western Site Access	26	6	1302	1136	0.023	26	65	0.0	0.0	3.240	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1215	304	123	2403	0.505	1213	1466	0.7	1.0	3.023	A
2 - Eastern Site Access	252	63	1209	1160	0.217	251	127	0.2	0.3	3.960	A
3 - A283 (South)	1585	396	53	2478	0.640	1582	1407	1.1	1.8	4.010	A
4 - Western Site Access	31	8	1558	956	0.032	31	77	0.0	0.0	3.889	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1487	372	150	2381	0.625	1485	1791	1.0	1.6	4.005	A
2 - Eastern Site Access	308	77	1479	971	0.318	308	156	0.3	0.5	5.424	A
3 - A283 (South)	1941	485	65	2468	0.786	1934	1722	1.8	3.6	6.647	A
4 - Western Site Access	37	9	1904	712	0.053	37	94	0.0	0.1	5.333	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1487	372	151	2381	0.625	1487	1798	1.6	1.7	4.029	A
2 - Eastern Site Access	308	77	1482	969	0.318	308	156	0.5	0.5	5.449	A
3 - A283 (South)	1941	485	65	2468	0.786	1941	1725	3.6	3.6	6.819	A
4 - Western Site Access	37	9	1911	707	0.053	37	95	0.1	0.1	5.372	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1215	304	124	2403	0.506	1217	1475	1.7	1.0	3.044	A
2 - Eastern Site Access	252	63	1213	1158	0.217	252	128	0.5	0.3	3.981	A
3 - A283 (South)	1585	396	53	2477	0.640	1592	1412	3.6	1.8	4.100	A
4 - Western Site Access	31	8	1568	949	0.032	31	78	0.1	0.0	3.920	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1017	254	103	2419	0.421	1018	1232	1.0	0.7	2.574	A
2 - Eastern Site Access	211	53	1015	1296	0.163	211	107	0.3	0.2	3.317	A
3 - A283 (South)	1327	332	44	2484	0.534	1330	1181	1.8	1.2	3.124	A
4 - Western Site Access	26	6	1309	1131	0.023	26	65	0.0	0.0	3.258	A

Scenario 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Eastern Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A283 (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Western Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.37	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	38	1 - A283 (North)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Scenario 2	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 (North)		ONE HOUR	✓	1391	100.000
2 - Eastern Site Access		ONE HOUR	✓	156	100.000
3 - A283 (South)		ONE HOUR	✓	1418	100.000
4 - Western Site Access		ONE HOUR	✓	57	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	38	1348	5
	2 - Eastern Site Access	30	0	126	0
	3 - A283 (South)	1186	218	0	14
	4 - Western Site Access	17	0	40	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	0	0	0
	2 - Eastern Site Access	0	0	0	0
	3 - A283 (South)	0	0	0	0
	4 - Western Site Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 (North)	0.67	4.84	2.0	A	1276	1915
2 - Eastern Site Access	0.18	4.73	0.2	A	143	215
3 - A283 (South)	0.63	3.88	1.7	A	1301	1952
4 - Western Site Access	0.07	4.10	0.1	A	52	78

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1047	262	194	2347	0.446	1044	926	0.0	0.8	2.756	A
2 - Eastern Site Access	117	29	1046	1275	0.092	117	192	0.0	0.1	3.110	A
3 - A283 (South)	1068	267	26	2499	0.427	1065	1136	0.0	0.7	2.504	A
4 - Western Site Access	43	11	1077	1295	0.033	43	14	0.0	0.0	2.873	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1250	313	232	2316	0.540	1249	1107	0.8	1.2	3.368	A
2 - Eastern Site Access	140	35	1251	1131	0.124	140	230	0.1	0.1	3.633	A
3 - A283 (South)	1275	319	31	2495	0.511	1274	1359	0.7	1.0	2.945	A
4 - Western Site Access	51	13	1288	1146	0.045	51	17	0.0	0.0	3.286	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1532	383	284	2275	0.673	1528	1355	1.2	2.0	4.798	A
2 - Eastern Site Access	172	43	1530	935	0.184	171	281	0.1	0.2	4.713	A
3 - A283 (South)	1561	390	38	2489	0.627	1559	1663	1.0	1.7	3.859	A
4 - Western Site Access	63	16	1576	943	0.067	63	21	0.0	0.1	4.088	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1532	383	284	2275	0.673	1531	1358	2.0	2.0	4.843	A
2 - Eastern Site Access	172	43	1534	933	0.184	172	282	0.2	0.2	4.731	A
3 - A283 (South)	1561	390	39	2489	0.627	1561	1667	1.7	1.7	3.879	A
4 - Western Site Access	63	16	1579	942	0.067	63	21	0.1	0.1	4.096	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1250	313	232	2316	0.540	1254	1111	2.0	1.2	3.402	A
2 - Eastern Site Access	140	35	1256	1127	0.124	141	231	0.2	0.1	3.651	A
3 - A283 (South)	1275	319	32	2495	0.511	1277	1365	1.7	1.1	2.964	A
4 - Western Site Access	51	13	1292	1144	0.045	51	17	0.1	0.0	3.294	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1047	262	194	2346	0.446	1049	929	1.2	0.8	2.777	A
2 - Eastern Site Access	117	29	1050	1271	0.092	118	193	0.1	0.1	3.119	A
3 - A283 (South)	1068	267	26	2499	0.427	1069	1141	1.1	0.7	2.520	A
4 - Western Site Access	43	11	1081	1292	0.033	43	14	0.0	0.0	2.881	A

Scenario 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Eastern Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A283 (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Western Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	5.18	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	3 - A283 (South)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Scenario 2	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 (North)		ONE HOUR	✓	1334	100.000
2 - Eastern Site Access		ONE HOUR	✓	272	100.000
3 - A283 (South)		ONE HOUR	✓	1725	100.000
4 - Western Site Access		ONE HOUR	✓	20	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	25	1293	16
	2 - Eastern Site Access	30	0	242	0
	3 - A283 (South)	1593	97	0	35
	4 - Western Site Access	5	0	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	0	0	0
	2 - Eastern Site Access	0	0	0	0
	3 - A283 (South)	0	0	0	0
	4 - Western Site Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 (North)	0.61	3.85	1.6	A	1224	1836
2 - Eastern Site Access	0.30	5.24	0.4	A	250	374
3 - A283 (South)	0.77	6.20	3.2	A	1583	2374
4 - Western Site Access	0.03	5.16	0.0	A	18	28

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1004	251	84	2434	0.413	1002	1222	0.0	0.7	2.509	A
2 - Eastern Site Access	205	51	994	1311	0.156	204	92	0.0	0.2	3.251	A
3 - A283 (South)	1299	325	35	2492	0.521	1294	1164	0.0	1.1	2.993	A
4 - Western Site Access	15	4	1291	1145	0.013	15	38	0.0	0.0	3.186	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1199	300	101	2421	0.495	1198	1461	0.7	1.0	2.941	A
2 - Eastern Site Access	245	61	1189	1174	0.208	244	110	0.2	0.3	3.871	A
3 - A283 (South)	1551	388	41	2487	0.624	1549	1392	1.1	1.6	3.826	A
4 - Western Site Access	18	4	1544	966	0.019	18	46	0.0	0.0	3.796	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1469	367	123	2403	0.611	1466	1787	1.0	1.6	3.834	A
2 - Eastern Site Access	299	75	1455	987	0.303	299	134	0.3	0.4	5.222	A
3 - A283 (South)	1899	475	51	2480	0.766	1893	1704	1.6	3.2	6.074	A
4 - Western Site Access	22	6	1888	724	0.030	22	56	0.0	0.0	5.127	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1469	367	123	2403	0.611	1469	1792	1.6	1.6	3.853	A
2 - Eastern Site Access	299	75	1458	986	0.304	299	134	0.4	0.4	5.244	A
3 - A283 (South)	1899	475	51	2480	0.766	1899	1707	3.2	3.2	6.196	A
4 - Western Site Access	22	6	1894	720	0.031	22	56	0.0	0.0	5.158	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1199	300	101	2421	0.495	1202	1469	1.6	1.0	2.960	A
2 - Eastern Site Access	245	61	1193	1172	0.209	245	110	0.4	0.3	3.889	A
3 - A283 (South)	1551	388	41	2487	0.624	1557	1396	3.2	1.7	3.898	A
4 - Western Site Access	18	4	1552	960	0.019	18	46	0.0	0.0	3.823	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1004	251	84	2434	0.413	1005	1228	1.0	0.7	2.523	A
2 - Eastern Site Access	205	51	998	1308	0.157	205	92	0.3	0.2	3.264	A
3 - A283 (South)	1299	325	35	2492	0.521	1301	1168	1.7	1.1	3.029	A
4 - Western Site Access	15	4	1297	1140	0.013	15	38	0.0	0.0	3.202	A

Scenario 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Eastern Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A283 (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Western Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.88	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	47	1 - A283 (North)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Scenario 3	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 (North)		ONE HOUR	✓	1379	100.000
2 - Eastern Site Access		ONE HOUR	✓	123	100.000
3 - A283 (South)		ONE HOUR	✓	1319	100.000
4 - Western Site Access		ONE HOUR	✓	38	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	28	1348	3
	2 - Eastern Site Access	30	0	93	0
	3 - A283 (South)	1186	124	0	9
	4 - Western Site Access	12	0	26	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	0	0	0
	2 - Eastern Site Access	0	0	0	0
	3 - A283 (South)	0	0	0	0
	4 - Western Site Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 (North)	0.64	4.23	1.8	A	1265	1898
2 - Eastern Site Access	0.14	4.45	0.2	A	113	169
3 - A283 (South)	0.58	3.46	1.4	A	1210	1816
4 - Western Site Access	0.04	3.70	0.0	A	35	52

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1038	260	113	2411	0.431	1035	922	0.0	0.8	2.610	A
2 - Eastern Site Access	93	23	1034	1283	0.072	92	114	0.0	0.1	3.023	A
3 - A283 (South)	993	248	25	2500	0.397	990	1101	0.0	0.7	2.380	A
4 - Western Site Access	29	7	1006	1345	0.021	29	9	0.0	0.0	2.734	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1240	310	135	2394	0.518	1238	1103	0.8	1.1	3.113	A
2 - Eastern Site Access	111	28	1237	1141	0.097	110	137	0.1	0.1	3.493	A
3 - A283 (South)	1186	296	30	2496	0.475	1185	1317	0.7	0.9	2.744	A
4 - Western Site Access	34	9	1204	1206	0.028	34	11	0.0	0.0	3.071	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1518	380	165	2370	0.641	1516	1350	1.1	1.8	4.201	A
2 - Eastern Site Access	135	34	1513	947	0.143	135	167	0.1	0.2	4.434	A
3 - A283 (South)	1452	363	36	2491	0.583	1450	1612	0.9	1.4	3.454	A
4 - Western Site Access	42	10	1473	1016	0.041	42	13	0.0	0.0	3.695	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1518	380	165	2369	0.641	1518	1352	1.8	1.8	4.229	A
2 - Eastern Site Access	135	34	1516	945	0.143	135	167	0.2	0.2	4.446	A
3 - A283 (South)	1452	363	36	2491	0.583	1452	1615	1.4	1.4	3.465	A
4 - Western Site Access	42	10	1475	1014	0.041	42	13	0.0	0.0	3.700	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1240	310	135	2393	0.518	1242	1106	1.8	1.1	3.136	A
2 - Eastern Site Access	111	28	1241	1138	0.097	111	137	0.2	0.1	3.504	A
3 - A283 (South)	1186	296	30	2496	0.475	1188	1322	1.4	0.9	2.754	A
4 - Western Site Access	34	9	1207	1204	0.028	34	11	0.0	0.0	3.077	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1038	260	113	2411	0.431	1039	925	1.1	0.8	2.626	A
2 - Eastern Site Access	93	23	1038	1280	0.072	93	115	0.1	0.1	3.031	A
3 - A283 (South)	993	248	25	2500	0.397	994	1106	0.9	0.7	2.393	A
4 - Western Site Access	29	7	1010	1342	0.021	29	9	0.0	0.0	2.739	A

Scenario 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Eastern Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A283 (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Western Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	5.08	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	27	3 - A283 (South)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Scenario 3	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 (North)		ONE HOUR	✓	1330	100.000
2 - Eastern Site Access		ONE HOUR	✓	223	100.000
3 - A283 (South)		ONE HOUR	✓	1714	100.000
4 - Western Site Access		ONE HOUR	✓	13	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	39	1280	11
	2 - Eastern Site Access	36	0	187	0
	3 - A283 (South)	1583	108	0	23
	4 - Western Site Access	3	0	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	0	0	0
	2 - Eastern Site Access	0	0	0	0
	3 - A283 (South)	0	0	0	0
	4 - Western Site Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 (North)	0.61	3.86	1.6	A	1220	1831
2 - Eastern Site Access	0.24	4.75	0.3	A	205	307
3 - A283 (South)	0.76	6.08	3.1	A	1573	2359
4 - Western Site Access	0.02	5.14	0.0	A	12	18

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1001	250	89	2431	0.412	999	1217	0.0	0.7	2.510	A
2 - Eastern Site Access	168	42	977	1323	0.127	167	110	0.0	0.1	3.113	A
3 - A283 (South)	1290	323	35	2492	0.518	1286	1109	0.0	1.1	2.977	A
4 - Western Site Access	10	2	1296	1141	0.009	10	26	0.0	0.0	3.182	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1196	299	106	2417	0.495	1195	1456	0.7	1.0	2.943	A
2 - Eastern Site Access	200	50	1168	1189	0.169	200	132	0.1	0.2	3.642	A
3 - A283 (South)	1541	385	42	2486	0.620	1539	1327	1.1	1.6	3.792	A
4 - Western Site Access	12	3	1550	962	0.012	12	31	0.0	0.0	3.788	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1464	366	130	2398	0.611	1462	1780	1.0	1.6	3.838	A
2 - Eastern Site Access	246	61	1430	1005	0.244	245	161	0.2	0.3	4.733	A
3 - A283 (South)	1887	472	52	2479	0.761	1881	1624	1.6	3.1	5.966	A
4 - Western Site Access	14	4	1895	719	0.020	14	37	0.0	0.0	5.111	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1464	366	130	2398	0.611	1464	1786	1.6	1.6	3.857	A
2 - Eastern Site Access	246	61	1432	1004	0.245	246	162	0.3	0.3	4.748	A
3 - A283 (South)	1887	472	52	2479	0.761	1887	1626	3.1	3.1	6.080	A
4 - Western Site Access	14	4	1901	714	0.020	14	37	0.0	0.0	5.141	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1196	299	106	2416	0.495	1198	1464	1.6	1.0	2.959	A
2 - Eastern Site Access	200	50	1172	1186	0.169	201	133	0.3	0.2	3.657	A
3 - A283 (South)	1541	385	42	2486	0.620	1547	1330	3.1	1.6	3.856	A
4 - Western Site Access	12	3	1559	956	0.012	12	31	0.0	0.0	3.815	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1001	250	89	2430	0.412	1002	1223	1.0	0.7	2.524	A
2 - Eastern Site Access	168	42	981	1320	0.127	168	111	0.2	0.1	3.124	A
3 - A283 (South)	1290	323	35	2492	0.518	1293	1113	1.6	1.1	3.007	A
4 - Western Site Access	10	2	1302	1136	0.009	10	26	0.0	0.0	3.197	A

Scenario 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Eastern Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A283 (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Western Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.25	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	40	1 - A283 (North)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Scenario 4	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 (North)		ONE HOUR	✓	1387	100.000
2 - Eastern Site Access		ONE HOUR	✓	87	100.000
3 - A283 (South)		ONE HOUR	✓	1413	100.000
4 - Western Site Access		ONE HOUR	✓	32	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	36	1348	3
	2 - Eastern Site Access	16	0	71	0
	3 - A283 (South)	1186	219	0	8
	4 - Western Site Access	10	0	22	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	0	0	0
	2 - Eastern Site Access	0	0	0	0
	3 - A283 (South)	0	0	0	0
	4 - Western Site Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 (North)	0.67	4.72	2.0	A	1273	1909
2 - Eastern Site Access	0.10	4.22	0.1	A	80	120
3 - A283 (South)	0.62	3.80	1.6	A	1297	1945
4 - Western Site Access	0.04	3.93	0.0	A	29	44

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1044	261	181	2357	0.443	1041	910	0.0	0.8	2.729	A
2 - Eastern Site Access	65	16	1031	1285	0.051	65	191	0.0	0.1	2.950	A
3 - A283 (South)	1064	266	14	2509	0.424	1061	1082	0.0	0.7	2.481	A
4 - Western Site Access	24	6	1067	1302	0.019	24	8	0.0	0.0	2.816	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1247	312	216	2329	0.535	1245	1089	0.8	1.1	3.319	A
2 - Eastern Site Access	78	20	1233	1143	0.068	78	229	0.1	0.1	3.378	A
3 - A283 (South)	1270	318	17	2506	0.507	1269	1294	0.7	1.0	2.907	A
4 - Western Site Access	29	7	1276	1155	0.025	29	10	0.0	0.0	3.196	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1527	382	265	2290	0.667	1524	1332	1.1	2.0	4.678	A
2 - Eastern Site Access	96	24	1508	950	0.101	96	280	0.1	0.1	4.212	A
3 - A283 (South)	1556	389	21	2503	0.621	1553	1583	1.0	1.6	3.780	A
4 - Western Site Access	35	9	1562	953	0.037	35	12	0.0	0.0	3.921	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1527	382	265	2290	0.667	1527	1334	2.0	2.0	4.721	A
2 - Eastern Site Access	96	24	1512	948	0.101	96	281	0.1	0.1	4.223	A
3 - A283 (South)	1556	389	21	2503	0.622	1556	1587	1.6	1.6	3.798	A
4 - Western Site Access	35	9	1565	952	0.037	35	12	0.0	0.0	3.928	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1247	312	217	2328	0.536	1250	1092	2.0	1.2	3.351	A
2 - Eastern Site Access	78	20	1238	1140	0.069	78	230	0.1	0.1	3.392	A
3 - A283 (South)	1270	318	17	2506	0.507	1273	1299	1.6	1.0	2.925	A
4 - Western Site Access	29	7	1280	1152	0.025	29	10	0.0	0.0	3.204	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1044	261	182	2356	0.443	1046	913	1.2	0.8	2.751	A
2 - Eastern Site Access	65	16	1035	1282	0.051	66	192	0.1	0.1	2.959	A
3 - A283 (South)	1064	266	14	2508	0.424	1065	1086	1.0	0.7	2.495	A
4 - Western Site Access	24	6	1071	1299	0.019	24	8	0.0	0.0	2.825	A

Scenario 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Eastern Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A283 (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Western Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.66	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	3 - A283 (South)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Scenario 4	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 (North)		ONE HOUR	✓	1311	100.000
2 - Eastern Site Access		ONE HOUR	✓	227	100.000
3 - A283 (South)		ONE HOUR	✓	1664	100.000
4 - Western Site Access		ONE HOUR	✓	11	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	22	1280	9
	2 - Eastern Site Access	25	0	202	0
	3 - A283 (South)	1583	61	0	20
	4 - Western Site Access	3	0	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 (North)	2 - Eastern Site Access	3 - A283 (South)	4 - Western Site Access
From	1 - A283 (North)	0	0	0	0
	2 - Eastern Site Access	0	0	0	0
	3 - A283 (South)	0	0	0	0
	4 - Western Site Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 (North)	0.59	3.61	1.4	A	1203	1804
2 - Eastern Site Access	0.25	4.76	0.3	A	208	312
3 - A283 (South)	0.74	5.47	2.8	A	1527	2290
4 - Western Site Access	0.02	4.82	0.0	A	10	15

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	987	247	52	2460	0.401	984	1209	0.0	0.7	2.436	A
2 - Eastern Site Access	171	43	974	1325	0.129	170	62	0.0	0.1	3.116	A
3 - A283 (South)	1253	313	26	2500	0.501	1249	1119	0.0	1.0	2.868	A
4 - Western Site Access	8	2	1253	1171	0.007	8	22	0.0	0.0	3.094	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1179	295	62	2452	0.481	1178	1446	0.7	0.9	2.822	A
2 - Eastern Site Access	204	51	1165	1191	0.171	204	75	0.1	0.2	3.646	A
3 - A283 (South)	1496	374	31	2496	0.599	1494	1338	1.0	1.5	3.589	A
4 - Western Site Access	10	2	1498	998	0.010	10	26	0.0	0.0	3.641	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1443	361	76	2441	0.591	1441	1769	0.9	1.4	3.594	A
2 - Eastern Site Access	250	62	1426	1008	0.248	249	91	0.2	0.3	4.742	A
3 - A283 (South)	1832	458	37	2490	0.736	1827	1638	1.5	2.7	5.389	A
4 - Western Site Access	12	3	1833	763	0.016	12	32	0.0	0.0	4.795	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1443	361	76	2441	0.591	1443	1774	1.4	1.4	3.609	A
2 - Eastern Site Access	250	62	1428	1007	0.248	250	91	0.3	0.3	4.757	A
3 - A283 (South)	1832	458	37	2490	0.736	1832	1640	2.7	2.8	5.468	A
4 - Western Site Access	12	3	1837	759	0.016	12	32	0.0	0.0	4.817	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	1179	295	62	2452	0.481	1181	1453	1.4	0.9	2.838	A
2 - Eastern Site Access	204	51	1168	1189	0.172	205	75	0.3	0.2	3.661	A
3 - A283 (South)	1496	374	31	2495	0.599	1501	1342	2.8	1.5	3.639	A
4 - Western Site Access	10	2	1505	993	0.010	10	26	0.0	0.0	3.660	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 (North)	987	247	52	2460	0.401	988	1215	0.9	0.7	2.449	A
2 - Eastern Site Access	171	43	977	1322	0.129	171	63	0.2	0.1	3.129	A
3 - A283 (South)	1253	313	26	2499	0.501	1255	1123	1.5	1.0	2.896	A
4 - Western Site Access	8	2	1259	1167	0.007	8	22	0.0	0.0	3.105	A

APPENDIX 14.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 1 – WASHINGTON ROUNDABOUT

14.1 ARCADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)

14.2 Proposed Junction Improvements

14.3 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 1 (Washington Rdbt) Existing.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 1 (Washington Rdbt)
Report generation date: 14/01/2022 12:06:15

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 14.1
ARCADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
1 - A283 East	3.8	15.60	0.80	C	39.17	E	-7 % [3 - A283 West]	4.6	19.80	0.83	C	105.86	F	-14 % [4 - A24 North]
2 - A24 South	6.0	12.84	0.86	B				1.7	4.16	0.63	A			
3 - A283 West	44.1	124.08	1.06	F				10.4	30.02	0.93	D			
4 - A24 North	9.0	20.78	0.91	C				162.4	255.17	1.17	F			
Scenario 1 Total														
1 - A283 East	4.5	17.86	0.83	C	45.56	E	-9 % [3 - A283 West]	4.8	20.37	0.84	C	118.08	F	-15 % [4 - A24 North]
2 - A24 South	6.5	14.05	0.87	B				1.7	4.22	0.63	A			
3 - A283 West	55.0	149.84	1.08	F				11.8	33.68	0.94	D			
4 - A24 North	9.2	21.17	0.91	C				175.6	285.80	1.18	F			
Scenario 2 Total														
1 - A283 East	4.2	17.09	0.82	C	44.24	E	-8 % [3 - A283 West]	4.8	20.55	0.84	C	114.44	F	-14 % [4 - A24 North]
2 - A24 South	6.3	13.71	0.87	B				1.7	4.22	0.63	A			
3 - A283 West	52.8	144.52	1.08	F				11.4	32.81	0.94	D			
4 - A24 North	9.3	21.25	0.91	C				171.6	276.61	1.18	F			
Scenario 3 Total														
1 - A283 East	4.2	16.96	0.82	C	43.45	E	-8 % [3 - A283 West]	4.9	20.86	0.84	C	114.00	F	-14 % [4 - A24 North]
2 - A24 South	6.3	13.59	0.87	B				1.7	4.22	0.63	A			
3 - A283 West	51.5	141.44	1.08	F				11.3	32.56	0.93	D			
4 - A24 North	9.2	21.06	0.91	C				171.2	275.30	1.18	F			
Scenario 4 Total														
1 - A283 East	4.0	16.38	0.81	C	42.95	E	-8 % [3 - A283 West]	4.7	20.32	0.84	C	109.37	F	-14 % [4 - A24 North]
2 - A24 South	6.2	13.39	0.87	B				1.7	4.18	0.63	A			
3 - A283 West	50.7	139.29	1.07	F				10.9	31.25	0.93	D			
4 - A24 North	9.3	21.33	0.91	C				166.1	263.87	1.17	F			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

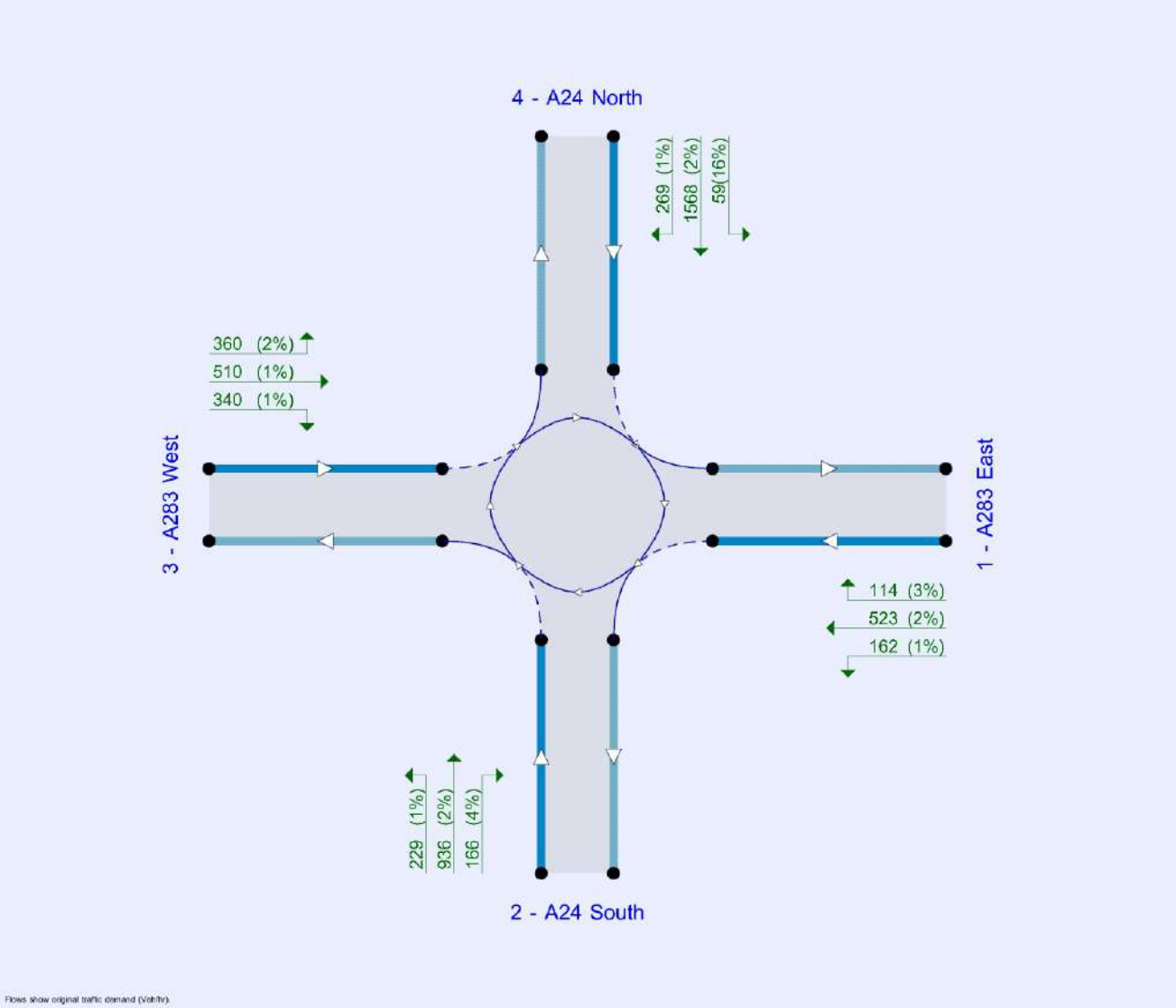
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	39.17	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	3 - A283 West

Arms

Arms

Arm	Name	Description
1	A283 East	
2	A24 South	
3	A283 West	
4	A24 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 East	6.20	7.70	9.0	22.8	91.4	17.0	
2 - A24 South	8.20	10.50	9.8	65.8	75.1	15.0	
3 - A283 West	4.80	8.50	27.7	28.0	91.4	38.0	
4 - A24 North	7.50	8.20	4.3	45.9	75.1	12.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 East	0.549	2286
2 - A24 South	0.722	3131
3 - A283 West	0.524	2209
4 - A24 North	0.647	2629

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	820	100.000
2 - A24 South		ONE HOUR	✓	1576	100.000
3 - A283 West		ONE HOUR	✓	1059	100.000
4 - A24 North		ONE HOUR	✓	1509	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	123	487	210
	2 - A24 South	145	0	214	1217
	3 - A283 West	519	221	2	317
	4 - A24 North	93	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	11
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	24	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.80	15.60	3.8	C	752	1129
2 - A24 South	0.86	12.84	6.0	B	1446	2169
3 - A283 West	1.06	124.08	44.1	F	972	1458
4 - A24 North	0.91	20.78	9.0	C	1385	2077

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	617	154	1228	1434	0.431	614	567	0.0	0.7	4.376	A
2 - A24 South	1186	297	860	2307	0.514	1182	982	0.0	1.1	3.188	A
3 - A283 West	797	199	1262	1411	0.565	792	781	0.0	1.3	5.766	A
4 - A24 North	1136	284	664	1986	0.572	1131	1390	0.0	1.3	4.182	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	737	184	1468	1303	0.566	735	677	0.7	1.3	6.310	A
2 - A24 South	1417	354	1029	2183	0.649	1414	1174	1.1	1.8	4.663	A
3 - A283 West	952	238	1509	1281	0.743	946	934	1.3	2.8	10.567	B
4 - A24 North	1357	339	793	1906	0.712	1352	1662	1.3	2.4	6.453	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	903	226	1764	1142	0.791	894	786	1.3	3.5	14.030	B
2 - A24 South	1735	434	1249	2020	0.859	1720	1408	1.8	5.6	11.477	B
3 - A283 West	1166	291	1835	1108	1.052	1075	1135	2.8	25.6	60.088	F
4 - A24 North	1661	415	911	1832	0.907	1639	1998	2.4	8.1	16.984	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	903	226	1785	1130	0.799	902	797	3.5	3.8	15.604	C
2 - A24 South	1735	434	1262	2011	0.863	1734	1425	5.6	6.0	12.845	B
3 - A283 West	1166	291	1850	1100	1.060	1092	1145	25.6	44.1	124.084	F
4 - A24 North	1661	415	925	1823	0.911	1658	2017	8.1	9.0	20.781	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	737	184	1531	1270	0.580	747	764	3.8	1.4	6.998	A
2 - A24 South	1417	354	1048	2169	0.653	1433	1230	6.0	1.9	4.995	A
3 - A283 West	952	238	1530	1269	0.750	1115	950	44.1	3.3	44.303	E
4 - A24 North	1357	339	913	1831	0.741	1381	1732	9.0	3.0	8.411	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	617	154	1242	1427	0.433	620	574	1.4	0.8	4.477	A
2 - A24 South	1186	297	868	2301	0.516	1190	993	1.9	1.1	3.248	A
3 - A283 West	797	199	1270	1407	0.567	805	788	3.3	1.3	6.056	A
4 - A24 North	1136	284	674	1980	0.574	1142	1402	3.0	1.4	4.330	A

2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	105.86	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	791	100.000
2 - A24 South		ONE HOUR	✓	1332	100.000
3 - A283 West		ONE HOUR	✓	1208	100.000
4 - A24 North		ONE HOUR	✓	1962	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	160	519	112
	2 - A24 South	165	2	229	936
	3 - A283 West	506	340	2	360
	4 - A24 North	55	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	17	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.83	19.80	4.6	C	726	1089
2 - A24 South	0.63	4.16	1.7	A	1222	1833
3 - A283 West	0.93	30.02	10.4	D	1108	1663
4 - A24 North	1.17	255.17	162.4	F	1800	2701

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	596	149	1684	1318	0.452	592	544	0.0	0.8	4.937	A
2 - A24 South	1003	251	727	2540	0.395	1000	1549	0.0	0.6	2.333	A
3 - A283 West	909	227	964	1668	0.545	905	763	0.0	1.2	4.688	A
4 - A24 North	1477	369	760	2076	0.711	1467	1109	0.0	2.4	5.822	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	711	178	2004	1142	0.622	708	650	0.8	1.6	8.225	A
2 - A24 South	1197	299	868	2438	0.491	1196	1844	0.6	1.0	2.895	A
3 - A283 West	1086	271	1153	1568	0.693	1082	911	1.2	2.2	7.349	A
4 - A24 North	1764	441	909	1981	0.890	1745	1326	2.4	7.1	14.246	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	871	218	2169	1052	0.828	860	779	1.6	4.3	17.812	C
2 - A24 South	1467	367	1008	2337	0.627	1464	2021	1.0	1.7	4.108	A
3 - A283 West	1330	333	1400	1437	0.926	1302	1072	2.2	9.1	23.182	C
4 - A24 North	2160	540	1098	1860	1.161	1850	1605	7.1	84.7	97.197	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	871	218	2175	1049	0.830	870	788	4.3	4.6	19.799	C
2 - A24 South	1467	367	1016	2332	0.629	1466	2029	1.7	1.7	4.160	A
3 - A283 West	1330	333	1404	1435	0.927	1325	1079	9.1	10.4	30.024	D
4 - A24 North	2160	540	1114	1850	1.168	1849	1614	84.7	162.4	242.787	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	711	178	2216	1026	0.693	720	672	4.6	2.3	12.091	B
2 - A24 South	1197	299	914	2405	0.498	1200	2023	1.7	1.0	2.993	A
3 - A283 West	1086	271	1165	1561	0.696	1118	948	10.4	2.4	8.699	A
4 - A24 North	1764	441	935	1965	0.898	1953	1348	162.4	115.2	255.171	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	596	149	2133	1071	0.556	600	561	2.3	1.3	7.706	A
2 - A24 South	1003	251	813	2478	0.405	1004	1920	1.0	0.7	2.445	A
3 - A283 West	909	227	985	1656	0.549	914	832	2.4	1.2	4.877	A
4 - A24 North	1477	369	767	2072	0.713	1927	1132	115.2	2.7	82.187	F

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	45.56	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-9	3 - A283 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	853	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1074	100.000
4 - A24 North		ONE HOUR	✓	1511	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	126	499	228
	2 - A24 South	148	0	214	1217
	3 - A283 West	534	221	2	317
	4 - A24 North	95	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.83	17.86	4.5	C	783	1174
2 - A24 South	0.87	14.05	6.5	B	1449	2173
3 - A283 West	1.08	149.84	55.0	F	986	1478
4 - A24 North	0.91	21.17	9.2	C	1387	2080

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	642	161	1228	1439	0.446	639	582	0.0	0.8	4.484	A
2 - A24 South	1189	297	883	2292	0.519	1184	984	0.0	1.1	3.238	A
3 - A283 West	809	202	1277	1405	0.576	803	790	0.0	1.3	5.931	A
4 - A24 North	1138	284	677	1979	0.575	1132	1403	0.0	1.3	4.228	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	767	192	1468	1308	0.586	764	695	0.8	1.4	6.599	A
2 - A24 South	1419	355	1056	2165	0.656	1416	1177	1.1	1.9	4.788	A
3 - A283 West	966	241	1527	1273	0.759	959	945	1.3	3.0	11.240	B
4 - A24 North	1358	340	809	1897	0.716	1354	1677	1.3	2.5	6.578	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	939	235	1760	1148	0.818	928	798	1.4	4.1	15.685	C
2 - A24 South	1739	435	1281	1999	0.870	1722	1408	1.9	6.0	12.317	B
3 - A283 West	1182	296	1856	1099	1.076	1072	1146	3.0	30.6	68.851	F
4 - A24 North	1664	416	917	1829	0.910	1640	2011	2.5	8.3	17.326	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	939	235	1781	1136	0.826	938	807	4.1	4.5	17.864	C
2 - A24 South	1739	435	1294	1989	0.874	1737	1424	6.0	6.5	14.052	B
3 - A283 West	1182	296	1873	1090	1.085	1085	1158	30.6	55.0	149.836	F
4 - A24 North	1664	416	927	1822	0.913	1660	2030	8.3	9.2	21.167	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	767	192	1539	1270	0.604	778	804	4.5	1.6	7.493	A
2 - A24 South	1419	355	1076	2149	0.660	1438	1241	6.5	2.0	5.183	A
3 - A283 West	966	241	1551	1260	0.766	1170	963	55.0	3.8	72.617	F
4 - A24 North	1358	340	960	1803	0.753	1383	1762	9.2	3.2	9.027	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	642	161	1243	1431	0.449	645	591	1.6	0.8	4.601	A
2 - A24 South	1189	297	891	2286	0.520	1192	996	2.0	1.1	3.302	A
3 - A283 West	809	202	1286	1400	0.578	818	797	3.8	1.4	6.284	A
4 - A24 North	1138	284	688	1972	0.577	1145	1416	3.2	1.4	4.391	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	118.08	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	808	100.000
2 - A24 South		ONE HOUR	✓	1337	100.000
3 - A283 West		ONE HOUR	✓	1219	100.000
4 - A24 North		ONE HOUR	✓	1977	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	163	529	116
	2 - A24 South	170	2	229	936
	3 - A283 West	517	340	2	360
	4 - A24 North	70	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	13	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	20.37	4.8	C	741	1112
2 - A24 South	0.63	4.22	1.7	A	1227	1840
3 - A283 West	0.94	33.68	11.8	D	1119	1678
4 - A24 North	1.18	285.80	175.6	F	1814	2721

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1684	1319	0.461	605	567	0.0	0.8	5.019	A
2 - A24 South	1007	252	738	2533	0.397	1004	1551	0.0	0.7	2.350	A
3 - A283 West	918	229	971	1665	0.551	913	771	0.0	1.2	4.758	A
4 - A24 North	1488	372	772	2069	0.719	1478	1112	0.0	2.5	5.995	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2002	1144	0.635	723	678	0.8	1.7	8.482	A
2 - A24 South	1202	300	880	2430	0.495	1201	1845	0.7	1.0	2.925	A
3 - A283 West	1096	274	1161	1564	0.701	1092	920	1.2	2.3	7.556	A
4 - A24 North	1777	444	924	1972	0.901	1756	1329	2.5	7.8	15.353	C

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2147	1065	0.836	878	808	1.7	4.5	18.295	C
2 - A24 South	1472	368	1019	2330	0.632	1469	2006	1.0	1.7	4.170	A
3 - A283 West	1342	336	1409	1432	0.937	1311	1079	2.3	10.1	25.039	D
4 - A24 North	2177	544	1113	1851	1.176	1842	1607	7.8	91.3	104.578	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2151	1062	0.837	888	819	4.5	4.8	20.372	C
2 - A24 South	1472	368	1027	2324	0.633	1472	2013	1.7	1.7	4.225	A
3 - A283 West	1342	336	1413	1430	0.938	1335	1086	10.1	11.8	33.676	D
4 - A24 North	2177	544	1130	1840	1.183	1840	1618	91.3	175.6	262.948	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2193	1039	0.699	736	703	4.8	2.4	12.234	B
2 - A24 South	1202	300	922	2399	0.501	1205	2007	1.7	1.0	3.022	A
3 - A283 West	1096	274	1173	1557	0.704	1133	954	11.8	2.4	9.205	A
4 - A24 North	1777	444	953	1954	0.910	1942	1352	175.6	134.4	285.798	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	2202	1034	0.589	612	591	2.4	1.5	8.618	A
2 - A24 South	1007	252	835	2462	0.409	1008	1979	1.0	0.7	2.477	A
3 - A283 West	918	229	994	1652	0.556	922	849	2.4	1.3	4.968	A
4 - A24 North	1488	372	780	2065	0.721	2013	1137	134.4	3.1	117.107	F

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	44.24	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - A283 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	843	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1072	100.000
4 - A24 North		ONE HOUR	✓	1511	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	125	496	222
	2 - A24 South	148	0	214	1217
	3 - A283 West	532	221	2	317
	4 - A24 North	95	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.82	17.09	4.2	C	774	1160
2 - A24 South	0.87	13.71	6.3	B	1449	2173
3 - A283 West	1.08	144.52	52.8	F	984	1476
4 - A24 North	0.91	21.25	9.3	C	1387	2080

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	635	159	1228	1437	0.442	632	580	0.0	0.8	4.451	A
2 - A24 South	1189	297	876	2297	0.518	1184	984	0.0	1.1	3.225	A
3 - A283 West	807	202	1273	1407	0.574	802	788	0.0	1.3	5.899	A
4 - A24 North	1138	284	676	1979	0.575	1132	1399	0.0	1.3	4.223	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	758	189	1468	1306	0.580	756	693	0.8	1.4	6.508	A
2 - A24 South	1419	355	1048	2170	0.654	1416	1176	1.1	1.9	4.755	A
3 - A283 West	964	241	1522	1275	0.756	957	942	1.3	2.9	11.101	B
4 - A24 North	1358	340	807	1898	0.716	1354	1672	1.3	2.5	6.565	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	928	232	1761	1146	0.810	918	797	1.4	3.9	15.130	C
2 - A24 South	1739	435	1271	2005	0.867	1722	1407	1.9	5.9	12.086	B
3 - A283 West	1180	295	1850	1102	1.071	1074	1144	2.9	29.6	67.044	F
4 - A24 North	1664	416	918	1828	0.910	1640	2006	2.5	8.3	17.351	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	928	232	1782	1135	0.818	927	807	3.9	4.2	17.094	C
2 - A24 South	1739	435	1285	1996	0.871	1737	1424	5.9	6.3	13.713	B
3 - A283 West	1180	295	1866	1093	1.080	1087	1155	29.6	52.8	144.519	F
4 - A24 North	1664	416	929	1821	0.913	1660	2025	8.3	9.3	21.248	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	758	189	1537	1269	0.597	769	797	4.2	1.5	7.338	A
2 - A24 South	1419	355	1068	2155	0.659	1437	1238	6.3	2.0	5.132	A
3 - A283 West	964	241	1545	1263	0.763	1160	959	52.8	3.7	66.241	F
4 - A24 North	1358	340	952	1808	0.751	1383	1754	9.3	3.1	8.933	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	635	159	1242	1429	0.444	637	589	1.5	0.8	4.562	A
2 - A24 South	1189	297	885	2290	0.519	1192	995	2.0	1.1	3.287	A
3 - A283 West	807	202	1282	1402	0.576	816	795	3.7	1.4	6.238	A
4 - A24 North	1138	284	687	1973	0.577	1145	1411	3.1	1.4	4.384	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	114.44	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	806	100.000
2 - A24 South		ONE HOUR	✓	1336	100.000
3 - A283 West		ONE HOUR	✓	1216	100.000
4 - A24 North		ONE HOUR	✓	1972	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	163	527	116
	2 - A24 South	169	2	229	936
	3 - A283 West	514	340	2	360
	4 - A24 North	65	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	14	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	20.55	4.8	C	740	1109
2 - A24 South	0.63	4.22	1.7	A	1226	1839
3 - A283 West	0.94	32.81	11.4	D	1116	1674
4 - A24 North	1.18	276.61	171.6	F	1810	2714

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	607	152	1684	1319	0.460	603	560	0.0	0.8	5.009	A
2 - A24 South	1006	251	736	2534	0.397	1003	1551	0.0	0.7	2.347	A
3 - A283 West	915	229	970	1665	0.550	911	769	0.0	1.2	4.742	A
4 - A24 North	1485	371	769	2071	0.717	1475	1112	0.0	2.5	5.943	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	725	181	2003	1144	0.634	721	670	0.8	1.7	8.454	A
2 - A24 South	1201	300	878	2431	0.494	1200	1846	0.7	1.0	2.921	A
3 - A283 West	1093	273	1160	1564	0.699	1089	918	1.2	2.3	7.507	A
4 - A24 North	1773	443	920	1975	0.898	1753	1329	2.5	7.5	15.006	C

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	887	222	2154	1061	0.836	876	800	1.7	4.5	18.409	C
2 - A24 South	1471	368	1018	2330	0.631	1468	2012	1.0	1.7	4.161	A
3 - A283 West	1339	335	1408	1433	0.934	1309	1078	2.3	9.8	24.610	C
4 - A24 North	2171	543	1109	1854	1.171	1844	1607	7.5	89.3	102.334	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	887	222	2158	1059	0.838	886	810	4.5	4.8	20.555	C
2 - A24 South	1471	368	1026	2325	0.633	1471	2019	1.7	1.7	4.216	A
3 - A283 West	1339	335	1412	1431	0.936	1332	1085	9.8	11.4	32.810	D
4 - A24 North	2171	543	1126	1843	1.178	1842	1618	89.3	171.6	256.872	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	725	181	2200	1035	0.700	734	694	4.8	2.4	12.323	B
2 - A24 South	1201	300	922	2400	0.501	1204	2012	1.7	1.0	3.016	A
3 - A283 West	1093	273	1172	1558	0.702	1129	954	11.4	2.4	9.084	A
4 - A24 North	1773	443	949	1956	0.906	1945	1352	171.6	128.6	276.610	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	607	152	2182	1045	0.581	611	582	2.4	1.4	8.373	A
2 - A24 South	1006	251	830	2466	0.408	1007	1962	1.0	0.7	2.469	A
3 - A283 West	915	229	993	1652	0.554	920	845	2.4	1.3	4.946	A
4 - A24 North	1485	371	777	2066	0.718	1987	1136	128.6	2.9	106.428	F

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	43.45	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - A283 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	841	100.000
2 - A24 South		ONE HOUR	✓	1578	100.000
3 - A283 West		ONE HOUR	✓	1070	100.000
4 - A24 North		ONE HOUR	✓	1510	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	125	495	221
	2 - A24 South	147	0	214	1217
	3 - A283 West	530	221	2	317
	4 - A24 North	94	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	24	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.82	16.96	4.2	C	772	1158
2 - A24 South	0.87	13.59	6.3	B	1448	2172
3 - A283 West	1.08	141.44	51.5	F	982	1473
4 - A24 North	0.91	21.06	9.2	C	1386	2078

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	633	158	1228	1437	0.441	630	577	0.0	0.8	4.445	A
2 - A24 South	1188	297	874	2298	0.517	1184	984	0.0	1.1	3.220	A
3 - A283 West	806	201	1271	1408	0.572	800	787	0.0	1.3	5.878	A
4 - A24 North	1137	284	673	1981	0.574	1131	1398	0.0	1.3	4.213	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	756	189	1468	1306	0.579	754	689	0.8	1.4	6.490	A
2 - A24 South	1419	355	1046	2171	0.653	1415	1176	1.1	1.9	4.742	A
3 - A283 West	962	240	1520	1276	0.754	955	941	1.3	2.9	11.018	B
4 - A24 North	1357	339	804	1899	0.715	1353	1671	1.3	2.4	6.539	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	926	231	1761	1146	0.808	916	794	1.4	3.9	15.038	C
2 - A24 South	1737	434	1269	2007	0.866	1721	1408	1.9	5.9	12.002	B
3 - A283 West	1178	295	1848	1102	1.069	1074	1143	2.9	29.0	65.997	F
4 - A24 North	1663	416	916	1829	0.909	1639	2006	2.4	8.2	17.226	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	926	231	1782	1134	0.816	925	804	3.9	4.2	16.962	C
2 - A24 South	1737	434	1283	1997	0.870	1736	1424	5.9	6.3	13.590	B
3 - A283 West	1178	295	1864	1094	1.077	1088	1154	29.0	51.5	141.443	F
4 - A24 North	1663	416	927	1822	0.913	1659	2025	8.2	9.2	21.059	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	756	189	1536	1270	0.595	767	791	4.2	1.5	7.303	A
2 - A24 South	1419	355	1066	2157	0.658	1436	1237	6.3	2.0	5.113	A
3 - A283 West	962	240	1543	1264	0.761	1154	958	51.5	3.6	62.631	F
4 - A24 North	1357	339	946	1811	0.749	1382	1751	9.2	3.1	8.824	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	633	158	1242	1429	0.443	636	586	1.5	0.8	4.555	A
2 - A24 South	1188	297	883	2291	0.518	1191	995	2.0	1.1	3.282	A
3 - A283 West	806	201	1280	1403	0.574	814	794	3.6	1.4	6.210	A
4 - A24 North	1137	284	684	1974	0.576	1144	1411	3.1	1.4	4.370	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	114.00	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	808	100.000
2 - A24 South		ONE HOUR	✓	1334	100.000
3 - A283 West		ONE HOUR	✓	1215	100.000
4 - A24 North		ONE HOUR	✓	1973	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	161	529	118
	2 - A24 South	167	2	229	936
	3 - A283 West	513	340	2	360
	4 - A24 North	66	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	14	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	20.86	4.9	C	741	1112
2 - A24 South	0.63	4.22	1.7	A	1224	1836
3 - A283 West	0.93	32.56	11.3	D	1115	1672
4 - A24 North	1.18	275.30	171.2	F	1810	2716

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1684	1319	0.461	605	559	0.0	0.8	5.020	A
2 - A24 South	1004	251	739	2532	0.397	1002	1549	0.0	0.7	2.348	A
3 - A283 West	915	229	970	1665	0.549	910	771	0.0	1.2	4.737	A
4 - A24 North	1485	371	767	2073	0.717	1475	1113	0.0	2.5	5.936	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2003	1144	0.635	723	668	0.8	1.7	8.489	A
2 - A24 South	1199	300	882	2429	0.494	1198	1844	0.7	1.0	2.923	A
3 - A283 West	1092	273	1160	1564	0.698	1088	920	1.2	2.3	7.496	A
4 - A24 North	1774	443	917	1976	0.897	1753	1331	2.5	7.5	14.963	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2155	1061	0.839	878	797	1.7	4.6	18.630	C
2 - A24 South	1469	367	1022	2327	0.631	1466	2010	1.0	1.7	4.165	A
3 - A283 West	1338	334	1408	1433	0.934	1308	1080	2.3	9.8	24.485	C
4 - A24 North	2172	543	1106	1856	1.171	1846	1610	7.5	89.1	101.996	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2159	1058	0.841	888	808	4.6	4.9	20.865	C
2 - A24 South	1469	367	1030	2321	0.633	1469	2017	1.7	1.7	4.222	A
3 - A283 West	1338	334	1412	1431	0.935	1331	1087	9.8	11.3	32.563	D
4 - A24 North	2172	543	1123	1845	1.178	1844	1620	89.1	171.2	255.949	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2201	1035	0.702	736	692	4.9	2.5	12.432	B
2 - A24 South	1199	300	926	2397	0.500	1202	2011	1.7	1.0	3.021	A
3 - A283 West	1092	273	1172	1557	0.701	1128	956	11.3	2.4	9.048	A
4 - A24 North	1774	443	946	1958	0.906	1947	1354	171.2	127.9	275.305	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	2179	1046	0.581	612	580	2.5	1.4	8.375	A
2 - A24 South	1004	251	833	2464	0.408	1006	1959	1.0	0.7	2.470	A
3 - A283 West	915	229	993	1652	0.554	919	846	2.4	1.3	4.943	A
4 - A24 North	1485	371	774	2068	0.718	1985	1138	127.9	2.9	105.072	F

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	42.95	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - A283 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	833	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1070	100.000
4 - A24 North		ONE HOUR	✓	1511	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	124	493	216
	2 - A24 South	148	0	214	1217
	3 - A283 West	530	221	2	317
	4 - A24 North	95	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	11
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.81	16.38	4.0	C	764	1147
2 - A24 South	0.87	13.39	6.2	B	1449	2173
3 - A283 West	1.07	139.29	50.7	F	982	1473
4 - A24 North	0.91	21.33	9.3	C	1387	2080

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	627	157	1228	1436	0.437	624	579	0.0	0.8	4.418	A
2 - A24 South	1189	297	869	2301	0.517	1185	983	0.0	1.1	3.211	A
3 - A283 West	806	201	1268	1409	0.572	800	785	0.0	1.3	5.864	A
4 - A24 North	1138	284	674	1980	0.574	1132	1394	0.0	1.3	4.219	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	749	187	1468	1305	0.574	747	691	0.8	1.3	6.420	A
2 - A24 South	1419	355	1040	2176	0.652	1416	1175	1.1	1.8	4.721	A
3 - A283 West	962	240	1517	1278	0.753	956	939	1.3	2.9	10.963	B
4 - A24 North	1358	340	805	1899	0.715	1354	1667	1.3	2.5	6.556	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	917	229	1761	1145	0.801	908	797	1.3	3.7	14.610	B
2 - A24 South	1739	435	1262	2012	0.864	1723	1407	1.8	5.8	11.861	B
3 - A283 West	1178	295	1844	1104	1.067	1075	1141	2.9	28.6	65.266	F
4 - A24 North	1664	416	918	1828	0.910	1640	2001	2.5	8.3	17.376	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	917	229	1783	1133	0.809	916	807	3.7	4.0	16.383	C
2 - A24 South	1739	435	1275	2002	0.868	1737	1424	5.8	6.2	13.388	B
3 - A283 West	1178	295	1860	1096	1.075	1090	1152	28.6	50.7	139.286	F
4 - A24 North	1664	416	930	1821	0.914	1660	2020	8.3	9.3	21.327	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	749	187	1536	1269	0.590	759	791	4.0	1.5	7.197	A
2 - A24 South	1419	355	1059	2161	0.657	1437	1236	6.2	1.9	5.082	A
3 - A283 West	962	240	1539	1266	0.760	1150	956	50.7	3.5	60.219	F
4 - A24 North	1358	340	944	1812	0.750	1383	1746	9.3	3.1	8.841	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	627	157	1242	1428	0.439	630	587	1.5	0.8	4.526	A
2 - A24 South	1189	297	878	2295	0.518	1192	994	1.9	1.1	3.273	A
3 - A283 West	806	201	1277	1404	0.574	814	793	3.5	1.4	6.188	A
4 - A24 North	1138	284	685	1974	0.576	1144	1407	3.1	1.4	4.375	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	109.37	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - A24 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	799	100.000
2 - A24 South		ONE HOUR	✓	1333	100.000
3 - A283 West		ONE HOUR	✓	1212	100.000
4 - A24 North		ONE HOUR	✓	1966	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	162	523	114
	2 - A24 South	166	2	229	936
	3 - A283 West	510	340	2	360
	4 - A24 North	59	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	16	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	20.32	4.7	C	733	1100
2 - A24 South	0.63	4.18	1.7	A	1223	1835
3 - A283 West	0.93	31.25	10.9	D	1112	1668
4 - A24 North	1.17	263.87	166.1	F	1804	2706

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	602	150	1684	1319	0.456	598	551	0.0	0.8	4.975	A
2 - A24 South	1004	251	732	2537	0.396	1001	1550	0.0	0.7	2.339	A
3 - A283 West	912	228	967	1667	0.547	908	766	0.0	1.2	4.713	A
4 - A24 North	1480	370	764	2074	0.714	1470	1110	0.0	2.4	5.871	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	718	180	2004	1143	0.628	715	658	0.8	1.7	8.349	A
2 - A24 South	1198	300	873	2435	0.492	1197	1845	0.7	1.0	2.906	A
3 - A283 West	1090	272	1156	1566	0.696	1085	915	1.2	2.2	7.421	A
4 - A24 North	1767	442	914	1978	0.893	1748	1327	2.4	7.3	14.548	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	880	220	2163	1056	0.833	868	787	1.7	4.5	18.211	C
2 - A24 South	1468	367	1013	2334	0.629	1465	2018	1.0	1.7	4.130	A
3 - A283 West	1334	334	1403	1435	0.930	1306	1075	2.2	9.4	23.818	C
4 - A24 North	2165	541	1102	1858	1.165	1848	1606	7.3	86.5	99.259	F

17:30 - 17:45

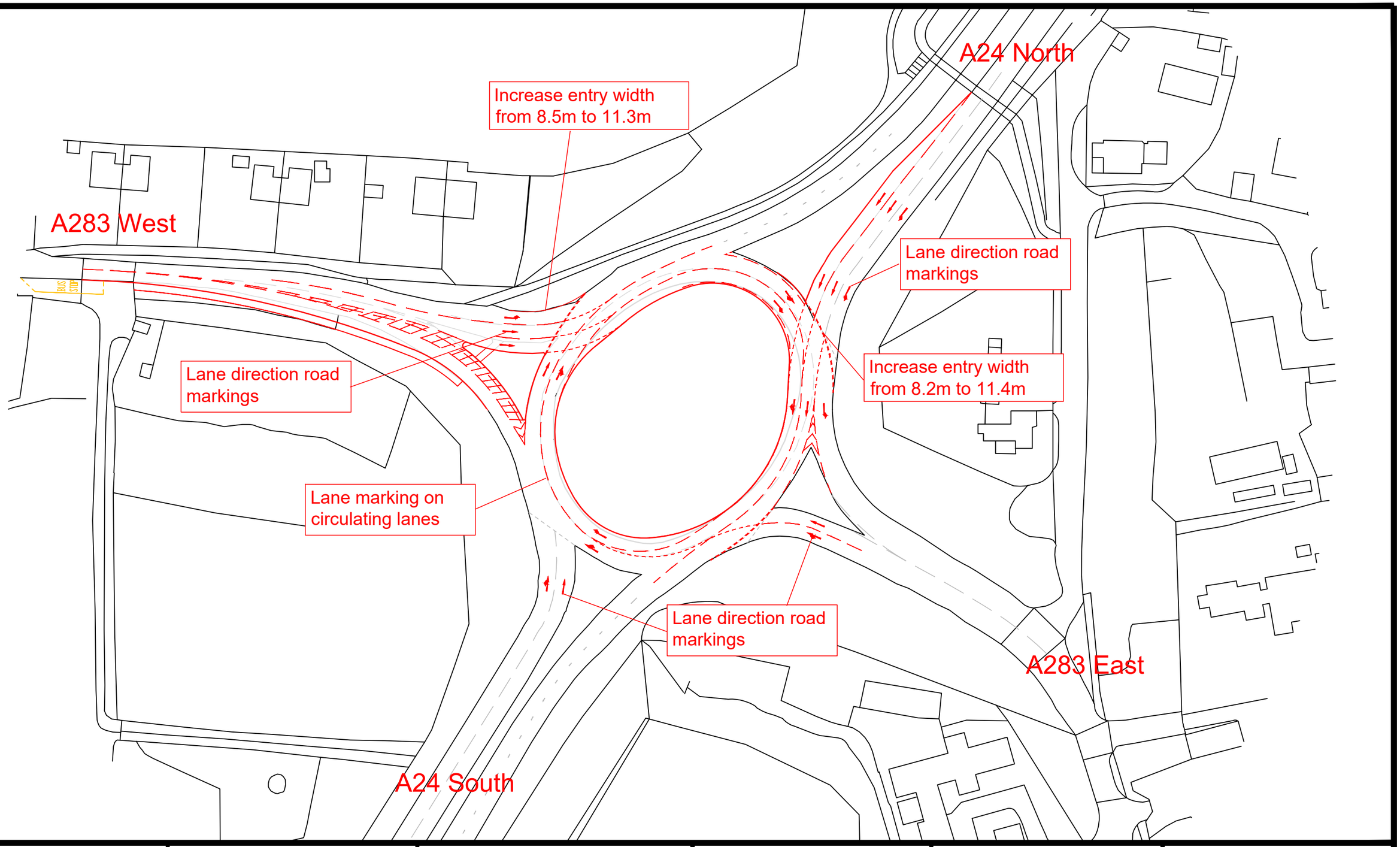
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	880	220	2168	1053	0.835	879	797	4.5	4.7	20.319	C
2 - A24 South	1468	367	1021	2328	0.630	1468	2026	1.7	1.7	4.184	A
3 - A283 West	1334	334	1407	1433	0.931	1329	1082	9.4	10.9	31.253	D
4 - A24 North	2165	541	1119	1847	1.172	1846	1616	86.5	166.1	248.478	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	718	180	2210	1030	0.698	728	681	4.7	2.4	12.262	B
2 - A24 South	1198	300	918	2402	0.499	1201	2019	1.7	1.0	3.003	A
3 - A283 West	1090	272	1168	1560	0.699	1123	951	10.9	2.4	8.869	A
4 - A24 North	1767	442	941	1961	0.901	1949	1350	166.1	120.6	263.867	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	602	150	2153	1060	0.567	606	570	2.4	1.3	7.990	A
2 - A24 South	1004	251	821	2472	0.406	1005	1938	1.0	0.7	2.456	A
3 - A283 West	912	228	988	1655	0.551	917	838	2.4	1.2	4.910	A
4 - A24 North	1480	370	771	2070	0.715	1952	1134	120.6	2.8	91.903	F



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2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS WASHINGTON ROUNDABOUT

Date	Drawn		
12/11/2021	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
1/1000@A3	APPENDIX 14.2		

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 1 (Washington Rdbt) Proposed.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 1 (Washington Rdbt)
Report generation date: 14/01/2022 15:32:40

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A283 East	4.8	19.07	0.84	C	13.43	B	5 % [1 - A283 East]	21.6	85.88	1.01	F	19.83	C	-5 % [1 - A283 East]
2 - A24 South	7.4	16.02	0.89	C				1.8	4.56	0.65	A			
3 - A283 West	5.6	17.81	0.86	C				3.2	8.66	0.76	A			
4 - A24 North	2.1	4.63	0.68	A				5.9	10.09	0.86	B			
Scenario 2 Total														
1 - A283 East	4.5	18.15	0.83	C	13.03	B	5 % [1 - A283 East]	21.1	84.24	1.01	F	19.47	C	-5 % [1 - A283 East]
2 - A24 South	7.2	15.60	0.89	C				1.8	4.55	0.65	A			
3 - A283 West	5.4	17.36	0.85	C				3.1	8.58	0.76	A			
4 - A24 North	2.1	4.62	0.68	A				5.8	9.85	0.86	A			
Scenario 3 Total														
1 - A283 East	4.4	17.98	0.82	C	12.89	B	5 % [1 - A283 East]	21.6	86.00	1.01	F	19.75	C	-5 % [1 - A283 East]
2 - A24 South	7.1	15.44	0.88	C				1.8	4.55	0.65	A			
3 - A283 West	5.4	17.11	0.85	C				3.1	8.56	0.76	A			
4 - A24 North	2.1	4.60	0.68	A				5.7	9.82	0.86	A			
Scenario 4 Total														
1 - A283 East	4.2	17.32	0.82	C	12.66	B	6 % [1 - A283 East]	19.2	78.52	1.00	F	18.40	C	-4 % [1 - A283 East]
2 - A24 South	7.0	15.19	0.88	C				1.8	4.51	0.65	A			
3 - A283 West	5.3	16.94	0.85	C				3.1	8.44	0.76	A			
4 - A24 North	2.1	4.61	0.68	A				5.6	9.54	0.85	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 14.3
ARCADY OUTPUTS: PROPOSED DEVELOPMENT SCENARIOS
(WITH PROPOSED JUNCTION IMPROVEMENTS)

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15			
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	13.43	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	1 - A283 East

Arms

Arms

Arm	Name	Description
1	A283 East	
2	A24 South	
3	A283 West	
4	A24 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 East	6.20	7.70	9.0	22.8	91.4	17.0	
2 - A24 South	8.20	10.50	9.8	38.7	75.1	17.0	
3 - A283 West	6.00	11.30	23.0	28.0	91.4	47.0	
4 - A24 North	7.50	11.40	53.0	45.9	75.1	15.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 East	0.549	2286
2 - A24 South	0.710	3081
3 - A283 West	0.575	2619
4 - A24 North	0.774	3486

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	853	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1074	100.000
4 - A24 North		ONE HOUR	✓	1511	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	126	499	228
	2 - A24 South	148	0	214	1217
	3 - A283 West	534	221	2	317
	4 - A24 North	95	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.84	19.07	4.8	C	783	1174
2 - A24 South	0.89	16.02	7.4	C	1449	2173
3 - A283 West	0.86	17.81	5.6	C	986	1478
4 - A24 North	0.68	4.63	2.1	A	1387	2080

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	642	161	1230	1437	0.447	639	583	0.0	0.8	4.492	A
2 - A24 South	1189	297	883	2255	0.527	1184	986	0.0	1.1	3.348	A
3 - A283 West	809	202	1277	1725	0.469	805	790	0.0	0.9	3.899	A
4 - A24 North	1138	284	678	2677	0.425	1135	1404	0.0	0.7	2.330	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	767	192	1471	1306	0.587	764	697	0.8	1.4	6.623	A
2 - A24 South	1419	355	1057	2130	0.667	1416	1179	1.1	2.0	5.021	A
3 - A283 West	966	241	1527	1580	0.611	963	945	0.9	1.5	5.810	A
4 - A24 North	1358	340	811	2578	0.527	1357	1679	0.7	1.1	2.943	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	939	235	1798	1127	0.833	927	846	1.4	4.5	17.003	C
2 - A24 South	1739	435	1285	1964	0.885	1719	1439	2.0	6.8	13.765	B
3 - A283 West	1182	296	1855	1389	0.851	1168	1150	1.5	5.1	15.380	C
4 - A24 North	1664	416	985	2449	0.679	1660	2038	1.1	2.1	4.540	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	939	235	1804	1124	0.835	938	854	4.5	4.8	19.066	C
2 - A24 South	1739	435	1296	1956	0.889	1736	1446	6.8	7.4	16.017	C
3 - A283 West	1182	296	1873	1379	0.857	1181	1159	5.1	5.6	17.809	C
4 - A24 North	1664	416	995	2441	0.682	1664	2058	2.1	2.1	4.628	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	767	192	1480	1301	0.589	780	709	4.8	1.5	7.080	A
2 - A24 South	1419	355	1071	2119	0.670	1441	1189	7.4	2.1	5.469	A
3 - A283 West	966	241	1553	1565	0.617	981	959	5.6	1.6	6.333	A
4 - A24 North	1358	340	827	2567	0.529	1362	1708	2.1	1.1	2.998	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	642	161	1236	1434	0.448	645	587	1.5	0.8	4.576	A
2 - A24 South	1189	297	890	2251	0.528	1192	991	2.1	1.1	3.413	A
3 - A283 West	809	202	1286	1720	0.470	812	796	1.6	0.9	3.976	A
4 - A24 North	1138	284	684	2673	0.426	1139	1414	1.1	0.7	2.348	A

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	19.83	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	808	100.000
2 - A24 South		ONE HOUR	✓	1337	100.000
3 - A283 West		ONE HOUR	✓	1219	100.000
4 - A24 North		ONE HOUR	✓	1977	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	163	529	116
	2 - A24 South	170	2	229	936
	3 - A283 West	517	340	2	360
	4 - A24 North	70	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	13	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	1.01	85.88	21.6	F	741	1112
2 - A24 South	0.65	4.56	1.8	A	1227	1840
3 - A283 West	0.76	8.66	3.2	A	1119	1678
4 - A24 North	0.86	10.09	5.9	B	1814	2721

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1689	1316	0.462	605	568	0.0	0.9	5.040	A
2 - A24 South	1007	252	739	2492	0.404	1004	1555	0.0	0.7	2.415	A
3 - A283 West	918	229	971	2019	0.455	914	771	0.0	0.8	3.250	A
4 - A24 North	1488	372	774	2807	0.530	1484	1112	0.0	1.1	2.712	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2020	1134	0.640	723	679	0.9	1.7	8.675	A
2 - A24 South	1202	300	883	2389	0.503	1201	1860	0.7	1.0	3.026	A
3 - A283 West	1096	274	1162	1908	0.574	1094	922	0.8	1.3	4.412	A
4 - A24 North	1777	444	925	2691	0.661	1774	1330	1.1	1.9	3.914	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2462	892	0.998	839	830	1.7	14.3	47.988	E
2 - A24 South	1472	368	1043	2275	0.647	1469	2258	1.0	1.8	4.446	A
3 - A283 West	1342	336	1414	1760	0.762	1335	1097	1.3	3.1	8.333	A
4 - A24 North	2177	544	1130	2534	0.859	2162	1620	1.9	5.7	9.315	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2477	883	1.007	861	833	14.3	21.6	85.879	F
2 - A24 South	1472	368	1062	2261	0.651	1472	2276	1.8	1.8	4.558	A
3 - A283 West	1342	336	1420	1757	0.764	1342	1114	3.1	3.2	8.661	A
4 - A24 North	2177	544	1135	2530	0.860	2176	1627	5.7	5.9	10.091	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2041	1123	0.647	805	685	21.6	1.9	14.327	B
2 - A24 South	1202	300	952	2340	0.514	1205	1894	1.8	1.1	3.182	A
3 - A283 West	1096	274	1178	1898	0.577	1103	979	3.2	1.4	4.568	A
4 - A24 North	1777	444	932	2685	0.662	1793	1348	5.9	2.0	4.104	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1699	1311	0.464	612	571	1.9	0.9	5.183	A
2 - A24 South	1007	252	746	2487	0.405	1008	1565	1.1	0.7	2.436	A
3 - A283 West	918	229	976	2016	0.455	920	778	1.4	0.8	3.292	A
4 - A24 North	1488	372	778	2804	0.531	1492	1118	2.0	1.1	2.752	A

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	13.03	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	843	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1072	100.000
4 - A24 North		ONE HOUR	✓	1511	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	125	496	222
	2 - A24 South	148	0	214	1217
	3 - A283 West	532	221	2	317
	4 - A24 North	95	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.83	18.15	4.5	C	774	1160
2 - A24 South	0.89	15.60	7.2	C	1449	2173
3 - A283 West	0.85	17.36	5.4	C	984	1476
4 - A24 North	0.68	4.62	2.1	A	1387	2080

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	635	159	1230	1436	0.442	632	581	0.0	0.8	4.459	A
2 - A24 South	1189	297	877	2260	0.526	1184	985	0.0	1.1	3.334	A
3 - A283 West	807	202	1273	1727	0.467	804	788	0.0	0.9	3.883	A
4 - A24 North	1138	284	677	2678	0.425	1135	1399	0.0	0.7	2.328	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	758	189	1471	1304	0.581	756	695	0.8	1.4	6.531	A
2 - A24 South	1419	355	1048	2135	0.665	1416	1179	1.1	2.0	4.984	A
3 - A283 West	964	241	1522	1582	0.609	961	943	0.9	1.5	5.770	A
4 - A24 North	1358	340	810	2579	0.527	1357	1673	0.7	1.1	2.940	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	928	232	1798	1126	0.824	917	844	1.4	4.2	16.345	C
2 - A24 South	1739	435	1276	1970	0.883	1720	1439	2.0	6.7	13.495	B
3 - A283 West	1180	295	1849	1392	0.848	1166	1147	1.5	5.0	15.087	C
4 - A24 North	1664	416	983	2450	0.679	1660	2033	1.1	2.1	4.532	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	928	232	1804	1123	0.826	927	852	4.2	4.5	18.151	C
2 - A24 South	1739	435	1286	1963	0.886	1736	1445	6.7	7.2	15.596	C
3 - A283 West	1180	295	1866	1382	0.854	1179	1156	5.0	5.4	17.362	C
4 - A24 North	1664	416	993	2442	0.681	1664	2052	2.1	2.1	4.620	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	758	189	1480	1300	0.583	770	706	4.5	1.4	6.951	A
2 - A24 South	1419	355	1063	2125	0.668	1440	1188	7.2	2.0	5.409	A
3 - A283 West	964	241	1547	1568	0.615	979	956	5.4	1.6	6.264	A
4 - A24 North	1358	340	824	2568	0.529	1362	1701	2.1	1.1	2.994	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	635	159	1236	1433	0.443	637	585	1.4	0.8	4.538	A
2 - A24 South	1189	297	883	2255	0.527	1192	990	2.0	1.1	3.398	A
3 - A283 West	807	202	1282	1722	0.469	810	794	1.6	0.9	3.961	A
4 - A24 North	1138	284	682	2674	0.425	1139	1409	1.1	0.7	2.348	A

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	19.47	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	806	100.000
2 - A24 South		ONE HOUR	✓	1336	100.000
3 - A283 West		ONE HOUR	✓	1216	100.000
4 - A24 North		ONE HOUR	✓	1972	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	163	527	116
	2 - A24 South	169	2	229	936
	3 - A283 West	514	340	2	360
	4 - A24 North	65	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	14	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	1.01	84.24	21.1	F	740	1109
2 - A24 South	0.65	4.55	1.8	A	1226	1839
3 - A283 West	0.76	8.58	3.1	A	1116	1674
4 - A24 North	0.86	9.85	5.8	A	1810	2714

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	607	152	1689	1316	0.461	603	561	0.0	0.8	5.039	A
2 - A24 South	1006	251	737	2493	0.403	1003	1556	0.0	0.7	2.412	A
3 - A283 West	915	229	971	2019	0.453	912	770	0.0	0.8	3.243	A
4 - A24 North	1485	371	771	2809	0.529	1480	1112	0.0	1.1	2.700	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	725	181	2020	1134	0.639	721	671	0.8	1.7	8.640	A
2 - A24 South	1201	300	881	2390	0.502	1200	1860	0.7	1.0	3.021	A
3 - A283 West	1093	273	1161	1908	0.573	1091	920	0.8	1.3	4.395	A
4 - A24 North	1773	443	922	2693	0.658	1770	1330	1.1	1.9	3.884	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	887	222	2462	891	0.996	838	820	1.7	14.1	47.429	E
2 - A24 South	1471	368	1041	2276	0.646	1468	2259	1.0	1.8	4.435	A
3 - A283 West	1339	335	1413	1761	0.760	1332	1096	1.3	3.1	8.263	A
4 - A24 North	2171	543	1125	2537	0.856	2157	1620	1.9	5.5	9.130	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	887	222	2477	883	1.005	860	823	14.1	21.1	84.245	F
2 - A24 South	1471	368	1061	2262	0.650	1471	2276	1.8	1.8	4.547	A
3 - A283 West	1339	335	1419	1757	0.762	1339	1112	3.1	3.1	8.585	A
4 - A24 North	2171	543	1131	2533	0.857	2170	1627	5.5	5.8	9.855	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	725	181	2040	1123	0.645	801	676	21.1	1.9	14.015	B
2 - A24 South	1201	300	948	2343	0.513	1204	1893	1.8	1.1	3.170	A
3 - A283 West	1093	273	1177	1899	0.576	1100	976	3.1	1.4	4.547	A
4 - A24 North	1773	443	929	2688	0.660	1788	1348	5.8	2.0	4.065	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	607	152	1698	1311	0.463	611	564	1.9	0.9	5.174	A
2 - A24 South	1006	251	745	2488	0.404	1007	1565	1.1	0.7	2.435	A
3 - A283 West	915	229	975	2016	0.454	918	777	1.4	0.8	3.284	A
4 - A24 North	1485	371	775	2806	0.529	1488	1118	2.0	1.1	2.740	A

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	12.89	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	841	100.000
2 - A24 South		ONE HOUR	✓	1578	100.000
3 - A283 West		ONE HOUR	✓	1070	100.000
4 - A24 North		ONE HOUR	✓	1510	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	125	495	221
	2 - A24 South	147	0	214	1217
	3 - A283 West	530	221	2	317
	4 - A24 North	94	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	10
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	24	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.82	17.98	4.4	C	772	1158
2 - A24 South	0.88	15.44	7.1	C	1448	2172
3 - A283 West	0.85	17.11	5.4	C	982	1473
4 - A24 North	0.68	4.60	2.1	A	1386	2078

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	633	158	1230	1436	0.441	630	578	0.0	0.8	4.453	A
2 - A24 South	1188	297	875	2261	0.526	1184	985	0.0	1.1	3.329	A
3 - A283 West	806	201	1271	1728	0.466	802	787	0.0	0.9	3.876	A
4 - A24 North	1137	284	675	2680	0.424	1134	1399	0.0	0.7	2.325	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	756	189	1472	1304	0.580	754	691	0.8	1.4	6.513	A
2 - A24 South	1419	355	1047	2136	0.664	1415	1179	1.1	1.9	4.970	A
3 - A283 West	962	240	1520	1583	0.608	959	942	0.9	1.5	5.746	A
4 - A24 North	1357	339	807	2581	0.526	1356	1673	0.7	1.1	2.934	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	926	231	1798	1126	0.822	915	840	1.4	4.2	16.220	C
2 - A24 South	1737	434	1274	1971	0.881	1719	1439	1.9	6.6	13.392	B
3 - A283 West	1178	295	1847	1393	0.845	1164	1146	1.5	4.9	14.920	B
4 - A24 North	1663	416	980	2452	0.678	1659	2032	1.1	2.1	4.514	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	926	231	1804	1123	0.825	925	848	4.2	4.4	17.979	C
2 - A24 South	1737	434	1284	1964	0.885	1735	1445	6.6	7.1	15.441	C
3 - A283 West	1178	295	1864	1383	0.852	1176	1155	4.9	5.4	17.113	C
4 - A24 North	1663	416	990	2445	0.680	1662	2051	2.1	2.1	4.600	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	756	189	1480	1299	0.582	768	703	4.4	1.4	6.926	A
2 - A24 South	1419	355	1061	2126	0.667	1439	1188	7.1	2.0	5.388	A
3 - A283 West	962	240	1545	1569	0.613	977	955	5.4	1.6	6.228	A
4 - A24 North	1357	339	822	2570	0.528	1361	1700	2.1	1.1	2.989	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	633	158	1236	1433	0.442	636	582	1.4	0.8	4.530	A
2 - A24 South	1188	297	881	2256	0.527	1192	990	2.0	1.1	3.395	A
3 - A283 West	806	201	1280	1723	0.468	808	793	1.6	0.9	3.950	A
4 - A24 North	1137	284	680	2676	0.425	1138	1409	1.1	0.7	2.345	A

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	19.75	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	808	100.000
2 - A24 South		ONE HOUR	✓	1334	100.000
3 - A283 West		ONE HOUR	✓	1215	100.000
4 - A24 North		ONE HOUR	✓	1973	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	161	529	118
	2 - A24 South	167	2	229	936
	3 - A283 West	513	340	2	360
	4 - A24 North	66	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	14	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	1.01	86.00	21.6	F	741	1112
2 - A24 South	0.65	4.55	1.8	A	1224	1836
3 - A283 West	0.76	8.56	3.1	A	1115	1672
4 - A24 North	0.86	9.82	5.7	A	1810	2716

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1689	1316	0.462	605	560	0.0	0.9	5.040	A
2 - A24 South	1004	251	740	2491	0.403	1002	1554	0.0	0.7	2.413	A
3 - A283 West	915	229	971	2019	0.453	911	771	0.0	0.8	3.241	A
4 - A24 North	1485	371	768	2811	0.528	1481	1114	0.0	1.1	2.698	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2020	1134	0.640	723	670	0.9	1.7	8.676	A
2 - A24 South	1199	300	885	2388	0.502	1198	1858	0.7	1.0	3.023	A
3 - A283 West	1092	273	1161	1908	0.572	1090	922	0.8	1.3	4.391	A
4 - A24 North	1774	443	919	2695	0.658	1771	1332	1.1	1.9	3.879	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2462	891	0.998	839	818	1.7	14.4	48.073	E
2 - A24 South	1469	367	1045	2274	0.646	1466	2257	1.0	1.8	4.436	A
3 - A283 West	1338	334	1413	1761	0.760	1331	1097	1.3	3.0	8.241	A
4 - A24 North	2172	543	1122	2540	0.855	2158	1622	1.9	5.5	9.101	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	890	222	2477	883	1.008	861	821	14.4	21.6	86.000	F
2 - A24 South	1469	367	1064	2260	0.650	1469	2274	1.8	1.8	4.548	A
3 - A283 West	1338	334	1419	1757	0.761	1337	1114	3.0	3.1	8.560	A
4 - A24 North	2172	543	1127	2536	0.857	2171	1629	5.5	5.7	9.818	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	726	182	2040	1123	0.647	805	674	21.6	1.9	14.323	B
2 - A24 South	1199	300	954	2339	0.513	1202	1892	1.8	1.1	3.176	A
3 - A283 West	1092	273	1177	1899	0.575	1099	979	3.1	1.4	4.542	A
4 - A24 North	1774	443	926	2690	0.659	1789	1350	5.7	2.0	4.061	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	608	152	1698	1311	0.464	612	563	1.9	0.9	5.185	A
2 - A24 South	1004	251	748	2486	0.404	1006	1563	1.1	0.7	2.434	A
3 - A283 West	915	229	975	2016	0.454	917	778	1.4	0.8	3.279	A
4 - A24 North	1485	371	773	2807	0.529	1489	1120	2.0	1.1	2.738	A

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	12.66	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	6	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	833	100.000
2 - A24 South		ONE HOUR	✓	1579	100.000
3 - A283 West		ONE HOUR	✓	1070	100.000
4 - A24 North		ONE HOUR	✓	1511	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	124	493	216
	2 - A24 South	148	0	214	1217
	3 - A283 West	530	221	2	317
	4 - A24 North	95	967	339	110

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	12	7	11
	2 - A24 South	9	0	7	6
	3 - A283 West	6	3	0	9
	4 - A24 North	23	8	9	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	0.82	17.32	4.2	C	764	1147
2 - A24 South	0.88	15.19	7.0	C	1449	2173
3 - A283 West	0.85	16.94	5.3	C	982	1473
4 - A24 North	0.68	4.61	2.1	A	1387	2080

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	627	157	1230	1434	0.437	624	580	0.0	0.8	4.425	A
2 - A24 South	1189	297	870	2264	0.525	1184	985	0.0	1.1	3.320	A
3 - A283 West	806	201	1268	1729	0.466	802	786	0.0	0.9	3.869	A
4 - A24 North	1138	284	675	2679	0.425	1135	1395	0.0	0.7	2.327	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	749	187	1472	1303	0.575	747	693	0.8	1.3	6.442	A
2 - A24 South	1419	355	1040	2140	0.663	1416	1178	1.1	1.9	4.948	A
3 - A283 West	962	240	1517	1585	0.607	959	940	0.9	1.5	5.728	A
4 - A24 North	1358	340	808	2581	0.526	1357	1668	0.7	1.1	2.937	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	917	229	1798	1125	0.815	906	842	1.3	4.0	15.731	C
2 - A24 South	1739	435	1267	1976	0.880	1720	1438	1.9	6.5	13.232	B
3 - A283 West	1178	295	1843	1396	0.844	1165	1144	1.5	4.9	14.805	B
4 - A24 North	1664	416	981	2451	0.679	1660	2027	1.1	2.1	4.525	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	917	229	1804	1122	0.817	916	850	4.0	4.2	17.317	C
2 - A24 South	1739	435	1276	1969	0.883	1737	1444	6.5	7.0	15.192	C
3 - A283 West	1178	295	1860	1386	0.850	1176	1153	4.9	5.3	16.936	C
4 - A24 North	1664	416	991	2444	0.681	1664	2046	2.1	2.1	4.611	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	749	187	1480	1299	0.577	760	704	4.2	1.4	6.827	A
2 - A24 South	1419	355	1054	2131	0.666	1439	1187	7.0	2.0	5.354	A
3 - A283 West	962	240	1541	1571	0.612	977	953	5.3	1.6	6.203	A
4 - A24 North	1358	340	822	2570	0.529	1362	1695	2.1	1.1	2.992	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	627	157	1236	1431	0.438	630	584	1.4	0.8	4.502	A
2 - A24 South	1189	297	876	2260	0.526	1192	990	2.0	1.1	3.383	A
3 - A283 West	806	201	1277	1724	0.467	808	791	1.6	0.9	3.944	A
4 - A24 North	1138	284	681	2676	0.425	1139	1405	1.1	0.7	2.345	A

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A24 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Washington Roundabout	Standard Roundabout	1, 2, 3, 4	18.40	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	1 - A283 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 East		ONE HOUR	✓	799	100.000
2 - A24 South		ONE HOUR	✓	1333	100.000
3 - A283 West		ONE HOUR	✓	1212	100.000
4 - A24 North		ONE HOUR	✓	1966	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	162	523	114
	2 - A24 South	166	2	229	936
	3 - A283 West	510	340	2	360
	4 - A24 North	59	1568	269	70

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A283 East	2 - A24 South	3 - A283 West	4 - A24 North
From	1 - A283 East	0	1	2	3
	2 - A24 South	4	0	1	2
	3 - A283 West	1	1	0	2
	4 - A24 North	16	2	1	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 East	1.00	78.52	19.2	F	733	1100
2 - A24 South	0.65	4.51	1.8	A	1223	1835
3 - A283 West	0.76	8.44	3.1	A	1112	1668
4 - A24 North	0.85	9.54	5.6	A	1804	2706

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	602	150	1689	1315	0.457	598	552	0.0	0.8	4.996	A
2 - A24 South	1004	251	733	2496	0.402	1001	1555	0.0	0.7	2.404	A
3 - A283 West	912	228	967	2021	0.451	909	767	0.0	0.8	3.228	A
4 - A24 North	1480	370	765	2813	0.526	1476	1111	0.0	1.1	2.683	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	718	180	2020	1134	0.633	715	660	0.8	1.7	8.521	A
2 - A24 South	1198	300	876	2394	0.501	1197	1859	0.7	1.0	3.005	A
3 - A283 West	1090	272	1156	1911	0.570	1088	917	0.8	1.3	4.363	A
4 - A24 North	1767	442	915	2698	0.655	1764	1328	1.1	1.9	3.844	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	880	220	2463	891	0.988	834	806	1.7	13.2	45.356	E
2 - A24 South	1468	367	1038	2279	0.644	1465	2259	1.0	1.8	4.405	A
3 - A283 West	1334	334	1408	1763	0.757	1328	1094	1.3	3.0	8.138	A
4 - A24 North	2165	541	1118	2543	0.851	2151	1618	1.9	5.4	8.882	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	880	220	2478	883	0.997	856	809	13.2	19.2	78.520	F
2 - A24 South	1468	367	1057	2265	0.648	1468	2276	1.8	1.8	4.515	A
3 - A283 West	1334	334	1415	1760	0.758	1334	1110	3.0	3.1	8.441	A
4 - A24 North	2165	541	1123	2539	0.853	2164	1626	5.4	5.6	9.543	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	718	180	2040	1123	0.640	788	664	19.2	1.8	13.055	B
2 - A24 South	1198	300	937	2350	0.510	1201	1890	1.8	1.0	3.143	A
3 - A283 West	1090	272	1171	1902	0.573	1096	968	3.1	1.4	4.505	A
4 - A24 North	1767	442	922	2693	0.656	1782	1345	5.6	1.9	4.014	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 East	602	150	1698	1311	0.459	605	555	1.8	0.9	5.132	A
2 - A24 South	1004	251	740	2491	0.403	1005	1564	1.0	0.7	2.426	A
3 - A283 West	912	228	972	2018	0.452	915	773	1.4	0.8	3.266	A
4 - A24 North	1480	370	770	2810	0.527	1483	1117	1.9	1.1	2.720	A

APPENDIX 15.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 2 – A283 / WATER LANE / CHANCTONBURY RING ROAD CROSSROADS

15.1 PICADY Output: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)
15.2 Proposed Junction Improvements
15.3 PICADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: Junction 2 (Water Lane) Existing.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 2 (Water Lane)
Report generation date: 14/01/2022 11:03:12

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 15.1
PICADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
Stream B-CD	0.0	21.94	0.03	C	5.76	A	-15 % [Stream B-AD]	2.2	1365.56	9999999999.00	F	37.52	E	-22 % [Stream B-AD]
Stream B-AD	0.4	166.70	0.34	F				1.1	1440.46	9999999999.00	F			
Stream A-BCD	1.9	11.50	0.55	B				1.3	9.59	0.46	A			
Stream D-AB	2.1	21.61	0.68	C				21.9	165.40	1.09	F			
Stream D-BC	0.1	49.58	0.12	E				4.6	303.79	1.01	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 1 Total														
Stream B-CD	0.1	47.16	0.08	E	7.02	A	-18 % [Stream B-AD]	2.2	1366.42	9999999999.00	F	49.42	E	-24 % [Stream B-AD]
Stream B-AD	0.9	394.15	0.59	F				1.1	1491.23	9999999999.00	F			
Stream A-BCD	2.0	11.53	0.56	B				1.4	9.68	0.47	A			
Stream D-AB	2.2	23.06	0.70	C				32.0	235.15	1.17	F			
Stream D-BC	0.2	58.26	0.14	F				5.5	375.04	1.07	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 2 Total														
Stream B-CD	0.1	31.67	0.05	D	6.48	A	-17 % [Stream B-AD]	2.2	1366.17	9999999999.00	F	45.91	E	-24 % [Stream B-AD]
Stream B-AD	0.7	291.83	0.49	F				1.1	1473.73	9999999999.00	F			
Stream A-BCD	2.0	11.54	0.56	B				1.4	9.64	0.47	A			
Stream D-AB	2.2	22.70	0.69	C				29.1	214.84	1.14	F			
Stream D-BC	0.2	55.96	0.14	F				5.3	352.36	1.05	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 3 Total														
Stream B-CD	0.0	29.29	0.05	D	6.33	A	-17 % [Stream B-AD]	2.2	1366.19	9999999999.00	F	45.54	E	-24 % [Stream B-AD]
Stream B-AD	0.7	267.02	0.46	F				1.1	1473.31	9999999999.00	F			
Stream A-BCD	1.9	11.52	0.55	B				1.4	9.63	0.47	A			
Stream D-AB	2.1	22.47	0.69	C				28.8	212.82	1.14	F			
Stream D-BC	0.2	54.85	0.14	F				5.2	350.19	1.05	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 4 Total														
Stream B-CD	0.0	26.78	0.04	D	6.22	A	-17 % [Stream B-AD]	2.2	1365.82	9999999999.00	F	40.89	E	-23 % [Stream B-AD]
Stream B-AD	0.6	237.19	0.43	F				1.1	1452.56	9999999999.00	F			
Stream A-BCD	1.9	11.58	0.56	B				1.4	9.61	0.47	A			
Stream D-AB	2.2	22.52	0.69	C				24.9	185.37	1.11	F			
Stream D-BC	0.1	54.40	0.13	F				4.8	322.70	1.03	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	5.76	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	Stream B-AD

Arms

Arms

Arm	Name	Description	Arm type
A	A283 East		Major
B	Chanctonbury Ring Road		Minor
C	A283 West		Major
D	Water Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A283 East	6.80		✓	2.20	100.0	✓	2.00
C - A283 West	6.80		✓	2.20	100.0	✓	2.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Chanctonbury Ring Road	One lane plus flare	10.00	3.40	2.20	2.20	2.20	✓	1.00	51	80
D - Water Lane	One lane plus flare	10.00	8.30	5.50	4.20	4.10	✓	2.00	46	106

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	632	-	-	-	-	-	-	0.236	0.338	0.236	-	-	-
1	B-A	534	0.094	0.237	0.237	-	-	-	0.149	0.339	-	0.237	0.237	0.119
1	B-C	809	0.120	0.303	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	641	0.113	0.285	0.285	-	-	-	0.179	0.407	0.179	-	-	-
1	B-D, offside lane	534	0.094	0.237	0.237	-	-	-	0.149	0.339	0.149	-	-	-
1	C-B	632	0.236	0.236	0.338	-	-	-	-	-	-	-	-	-
1	D-A	805	-	-	-	-	-	-	0.301	-	0.119	-	-	-
1	D-B, nearside lane	635	0.178	0.178	0.403	-	-	-	0.282	0.282	0.112	-	-	-
1	D-B, offside lane	541	0.151	0.151	0.344	-	-	-	0.240	0.240	0.095	-	-	-
1	D-C	541	-	0.151	0.344	0.120	0.240	0.240	0.240	0.240	0.095	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1028	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	703	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	812	213
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	700	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.03	21.94	0.0	C	4	7
B-AD	0.34	166.70	0.4	F	9	14
A-BCD	0.55	11.50	1.9	B	267	401
A-B					2	4
A-C					673	1010
D-AB	0.68	21.61	2.1	C	296	444
D-BC	0.12	49.58	0.1	E	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					642	963

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	382	0.009	3	0.0	0.0	9.520	A
B-AD	8	2	191	0.041	8	0.0	0.0	19.593	C
A-BCD	181	45	559	0.324	179	0.0	0.5	9.438	A
A-B	2	0.55			2				
A-C	590	148			590				
D-AB	243	61	616	0.394	240	0.0	0.6	9.509	A
D-BC	7	2	238	0.030	7	0.0	0.0	15.556	C
C-ABD	0	0	839	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	527	132			527				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	314	0.013	4	0.0	0.0	11.607	B
B-AD	9	2	127	0.074	9	0.0	0.1	30.583	D
A-BCD	242	60	588	0.411	241	0.5	0.8	10.286	B
A-B	3	0.63			3				
A-C	680	170			680				
D-AB	290	72	579	0.501	289	0.6	1.0	12.338	B
D-BC	8	2	174	0.049	8	0.0	0.0	21.696	C
C-ABD	0	0	755	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	629	157			629				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	5	1	181	0.030	5	0.0	0.0	20.418	C
B-AD	11	3	34	0.324	10	0.1	0.4	143.509	F
A-BCD	379	95	693	0.548	376	0.8	1.8	11.248	B
A-B	3	0.69			3				
A-C	750	187			750				
D-AB	355	89	521	0.681	351	1.0	2.0	20.649	C
D-BC	10	3	85	0.122	10	0.0	0.1	48.007	E
C-ABD	0	0	641	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	771	193			771				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	169	0.033	6	0.0	0.0	21.937	C
B-AD	11	3	32	0.343	11	0.4	0.5	166.695	F
A-BCD	379	95	697	0.544	379	1.8	1.8	11.497	B
A-B	3	0.69			3				
A-C	750	187			750				
D-AB	355	89	521	0.682	355	2.0	2.1	21.611	C
D-BC	10	3	83	0.124	10	0.1	0.1	49.578	E
C-ABD	0	0	638	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	771	193			771				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	309	0.013	4	0.0	0.0	11.912	B
B-AD	9	2	124	0.075	11	0.5	0.1	31.969	D
A-BCD	242	60	596	0.406	245	1.8	0.9	10.592	B
A-B	3	0.63			3				
A-C	680	170			680				
D-AB	290	72	579	0.501	294	2.1	1.0	12.833	B
D-BC	8	2	172	0.049	9	0.1	0.1	22.112	C
C-ABD	0	0	752	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	629	157			629				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	380	0.009	3	0.0	0.0	9.569	A
B-AD	8	2	190	0.041	8	0.1	0.0	19.830	C
A-BCD	181	45	561	0.323	183	0.9	0.6	9.619	A
A-B	2	0.55			2				
A-C	590	148			590				
D-AB	243	61	616	0.394	244	1.0	0.7	9.722	A
D-BC	7	2	237	0.030	7	0.1	0.0	15.688	C
C-ABD	0	0	837	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	527	132			527				

2033 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	37.52	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1281	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	688	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1089	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	681	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1365.56	2.2	F	3	5
B-AD	9999999999.00	1440.46	1.1	F	2	3
A-BCD	0.46	9.59	1.3	A	233	350
A-B					4	6
A-C					938	1407
D-AB	1.09	165.40	21.9	F	367	550
D-BC	1.01	303.79	4.6	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					625	937

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	402	0.007	3	0.0	0.0	9.023	A
B-AD	2	0.47	191	0.010	2	0.0	0.0	19.016	C
A-BCD	160	40	568	0.281	158	0.0	0.4	8.759	A
A-B	4	0.92			4				
A-C	801	200			801				
D-AB	301	75	617	0.488	297	0.0	0.9	11.140	B
D-BC	38	9	230	0.165	37	0.0	0.2	18.628	C
C-ABD	0	0	775	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	513	128			513				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	410	0.008	3	0.0	0.0	8.848	A
B-AD	2	0.56	81	0.028	2	0.0	0.0	45.452	E
A-BCD	212	53	602	0.353	211	0.4	0.7	9.225	A
A-B	4	1			4				
A-C	935	234			935				
D-AB	359	90	568	0.632	356	0.9	1.6	16.782	C
D-BC	45	11	159	0.285	45	0.2	0.4	31.216	D
C-ABD	0	0	679	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	612	153			612				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1365.562	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1440.463	F
A-BCD	329	82	707	0.465	326	0.7	1.3	9.471	A
A-B	5	1			5				
A-C	1077	269			1077				
D-AB	440	110	432	1.019	402	1.6	11.3	78.839	F
D-BC	55	14	55	1.007	43	0.4	3.4	223.291	F
C-ABD	0	0	547	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	750	187			750				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	476.557	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	578.708	F
A-BCD	329	82	707	0.465	328	1.3	1.3	9.592	A
A-B	5	1			5				
A-C	1077	269			1077				
D-AB	440	110	405	1.086	398	11.3	21.9	165.402	F
D-BC	55	14	57	0.963	50	3.4	4.6	303.791	F
C-ABD	0	0	545	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	750	187			750				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.80	360	0.009	12	2.2	0.0	10.587	B
B-AD	2	0.55	52	0.042	7	1.1	0.0	84.931	F
A-BCD	212	53	602	0.353	215	1.3	0.7	9.394	A
A-B	4	1			4				
A-C	935	234			935				
D-AB	359	90	541	0.664	438	21.9	2.2	55.345	F
D-BC	45	11	124	0.364	61	4.6	0.6	67.560	F
C-ABD	0	0	676	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	612	153			612				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	481	0.005	3	0.0	0.0	7.527	A
B-AD	2	0.47	156	0.012	2	0.0	0.0	23.368	C
A-BCD	160	40	568	0.281	161	0.7	0.5	8.876	A
A-B	4	0.92			4				
A-C	801	200			801				
D-AB	301	75	614	0.490	306	2.2	1.0	11.827	B
D-BC	38	9	228	0.167	40	0.6	0.2	19.319	C
C-ABD	0	0	773	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	513	128			513				

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	7.02	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1063	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	723	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	845	215
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	720	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.08	47.16	0.1	E	5	7
B-AD	0.59	394.15	0.9	F	9	14
A-BCD	0.56	11.53	2.0	B	277	415
A-B					2	4
A-C					696	1044
D-AB	0.70	23.06	2.2	C	297	445
D-BC	0.14	58.26	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					661	991

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	372	0.009	3	0.0	0.0	9.773	A
B-AD	8	2	183	0.043	8	0.0	0.0	20.521	C
A-BCD	185	46	560	0.330	183	0.0	0.5	9.491	A
A-B	2	0.54			2				
A-C	613	153			613				
D-AB	244	61	612	0.398	241	0.0	0.7	9.650	A
D-BC	7	2	230	0.031	7	0.0	0.0	16.108	C
C-ABD	0	0	826	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	542	136			542				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	301	0.014	4	0.0	0.0	12.127	B
B-AD	9	2	117	0.080	9	0.0	0.1	33.462	D
A-BCD	249	62	594	0.419	247	0.5	0.9	10.324	B
A-B	3	0.63			3				
A-C	705	176			705				
D-AB	291	73	573	0.508	289	0.7	1.0	12.628	B
D-BC	8	2	165	0.051	8	0.0	0.1	22.997	C
C-ABD	0	0	740	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	647	162			647				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	128	0.046	6	0.0	0.0	29.128	D
B-AD	11	3	20	0.528	8	0.1	0.7	277.009	F
A-BCD	397	99	710	0.560	393	0.9	1.9	11.257	B
A-B	3	0.68			3				
A-C	770	193			770				
D-AB	356	89	512	0.696	352	1.0	2.1	21.854	C
D-BC	10	3	74	0.139	10	0.1	0.2	55.845	F
C-ABD	0	0	622	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	793	198			793				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	2	82	0.075	6	0.0	0.1	47.155	E
B-AD	10	3	18	0.588	9	0.7	0.9	394.149	F
A-BCD	397	99	714	0.556	397	1.9	2.0	11.533	B
A-B	3	0.68			3				
A-C	770	193			770				
D-AB	356	89	511	0.697	356	2.1	2.2	23.065	C
D-BC	10	3	72	0.143	10	0.2	0.2	58.256	F
C-ABD	0	0	620	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	793	198			793				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	291	0.014	4	0.1	0.0	12.798	B
B-AD	9	2	113	0.083	13	0.9	0.1	36.496	E
A-BCD	249	62	601	0.413	253	2.0	1.0	10.661	B
A-B	3	0.63			3				
A-C	705	176			705				
D-AB	291	73	572	0.508	295	2.2	1.1	13.201	B
D-BC	8	2	162	0.052	9	0.2	0.1	23.552	C
C-ABD	0	0	737	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	647	162			647				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	370	0.009	3	0.0	0.0	9.836	A
B-AD	8	2	181	0.043	8	0.1	0.0	20.792	C
A-BCD	185	46	563	0.328	186	1.0	0.6	9.682	A
A-B	2	0.54			2				
A-C	613	153			613				
D-AB	244	61	611	0.398	245	1.1	0.7	9.874	A
D-BC	7	2	229	0.031	7	0.1	0.0	16.255	C
C-ABD	0	0	824	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	542	136			542				

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	49.42	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1298	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	719	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1106	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	712	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1366.42	2.2	F	3	5
B-AD	9999999999.00	1491.23	1.1	F	2	3
A-BCD	0.47	9.68	1.4	A	238	356
A-B					4	6
A-C					949	1424
D-AB	1.17	235.15	32.0	F	367	550
D-BC	1.07	375.04	5.5	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					653	980

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	396	0.007	3	0.0	0.0	9.142	A
B-AD	2	0.47	183	0.010	2	0.0	0.0	19.858	C
A-BCD	160	40	565	0.284	159	0.0	0.4	8.840	A
A-B	4	0.92			4				
A-C	813	203			813				
D-AB	301	75	609	0.494	297	0.0	1.0	11.406	B
D-BC	38	9	222	0.171	37	0.0	0.2	19.413	C
C-ABD	0	0	769	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	536	134			536				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	401	0.008	3	0.0	0.0	9.054	A
B-AD	2	0.56	73	0.031	2	0.0	0.0	50.789	F
A-BCD	215	54	600	0.358	214	0.4	0.7	9.312	A
A-B	4	1			4				
A-C	948	237			948				
D-AB	359	90	557	0.645	356	1.0	1.7	17.625	C
D-BC	45	11	150	0.302	44	0.2	0.4	33.916	D
C-ABD	0	0	671	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	640	160			640				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1366.418	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1491.234	F
A-BCD	337	84	713	0.473	335	0.7	1.4	9.539	A
A-B	5	1			5				
A-C	1087	272			1087				
D-AB	440	110	406	1.085	386	1.7	15.4	102.628	F
D-BC	55	14	52	1.070	42	0.4	3.8	252.808	F
C-ABD	0	0	538	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	784	196			784				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	478.018	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	650.806	F
A-BCD	337	84	713	0.473	337	1.4	1.4	9.675	A
A-B	5	1			5				
A-C	1087	272			1087				
D-AB	440	110	377	1.167	374	15.4	32.0	235.152	F
D-BC	55	14	53	1.045	48	3.8	5.5	375.036	F
C-ABD	0	0	536	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	784	196			784				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.81	342	0.009	12	2.2	0.0	11.203	B
B-AD	2	0.54	33	0.065	6	1.1	0.1	145.188	F
A-BCD	215	54	600	0.358	217	1.4	0.7	9.497	A
A-B	4	1			4				
A-C	948	237			948				
D-AB	359	90	519	0.692	476	32.0	2.8	116.718	F
D-BC	45	11	90	0.504	62	5.5	1.3	155.674	F
C-ABD	0	0	669	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	640	160			640				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	474	0.006	3	0.0	0.0	7.631	A
B-AD	2	0.47	149	0.013	2	0.1	0.0	24.631	C
A-BCD	160	40	565	0.284	162	0.7	0.5	8.965	A
A-B	4	0.92			4				
A-C	813	203			813				
D-AB	301	75	604	0.498	308	2.8	1.0	12.399	B
D-BC	38	9	220	0.173	42	1.3	0.2	20.723	C
C-ABD	0	0	767	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	536	134			536				

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.48	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1052	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	721	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	835	214
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	718	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.05	31.67	0.1	D	4	7
B-AD	0.49	291.83	0.7	F	9	14
A-BCD	0.56	11.54	2.0	B	274	411
A-B					2	4
A-C					689	1034
D-AB	0.69	22.70	2.2	C	296	444
D-BC	0.14	55.96	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					659	988

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	374	0.009	3	0.0	0.0	9.705	A
B-AD	8	2	185	0.042	8	0.0	0.0	20.264	C
A-BCD	183	46	559	0.328	181	0.0	0.5	9.487	A
A-B	2	0.54			2				
A-C	606	152			606				
D-AB	243	61	612	0.397	240	0.0	0.6	9.619	A
D-BC	7	2	232	0.031	7	0.0	0.0	15.979	C
C-ABD	0	0	830	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	541	135			541				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	304	0.014	4	0.0	0.0	11.983	B
B-AD	9	2	119	0.078	9	0.0	0.1	32.625	D
A-BCD	246	62	591	0.416	245	0.5	0.9	10.328	B
A-B	3	0.63			3				
A-C	697	174			697				
D-AB	290	72	574	0.505	289	0.6	1.0	12.561	B
D-BC	8	2	167	0.051	8	0.0	0.1	22.685	C
C-ABD	0	0	745	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	645	161			645				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	147	0.039	6	0.0	0.0	25.198	D
B-AD	11	3	24	0.450	9	0.1	0.6	222.402	F
A-BCD	392	98	704	0.556	388	0.9	1.9	11.273	B
A-B	3	0.69			3				
A-C	764	191			764				
D-AB	355	89	514	0.692	351	1.0	2.1	21.561	C
D-BC	10	3	76	0.135	10	0.1	0.1	53.838	F
C-ABD	0	0	628	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	791	198			791				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	119	0.050	6	0.0	0.1	31.673	D
B-AD	11	3	22	0.491	10	0.6	0.7	291.833	F
A-BCD	392	98	708	0.553	391	1.9	1.9	11.541	B
A-B	3	0.69			3				
A-C	764	191			764				
D-AB	355	89	513	0.693	355	2.1	2.2	22.705	C
D-BC	10	3	74	0.138	10	0.1	0.2	55.959	F
C-ABD	0	0	626	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	791	198			791				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	297	0.014	4	0.1	0.0	12.487	B
B-AD	9	2	116	0.080	12	0.7	0.1	34.942	D
A-BCD	246	62	599	0.411	250	1.9	0.9	10.657	B
A-B	3	0.63			3				
A-C	697	174			697				
D-AB	290	72	573	0.506	294	2.2	1.1	13.113	B
D-BC	8	2	164	0.052	9	0.2	0.1	23.198	C
C-ABD	0	0	742	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	645	161			645				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	373	0.009	3	0.0	0.0	9.761	A
B-AD	8	2	183	0.043	8	0.1	0.0	20.525	C
A-BCD	183	46	562	0.326	185	0.9	0.6	9.675	A
A-B	2	0.54			2				
A-C	606	152			606				
D-AB	243	61	612	0.397	244	1.1	0.7	9.839	A
D-BC	7	2	231	0.031	7	0.1	0.0	16.123	C
C-ABD	0	0	828	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	541	135			541				

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	45.91	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1296	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	710	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1104	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	703	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1366.17	2.2	F	3	5
B-AD	9999999999.00	1473.73	1.1	F	2	3
A-BCD	0.47	9.64	1.4	A	236	355
A-B					4	6
A-C					948	1423
D-AB	1.14	214.84	29.1	F	367	550
D-BC	1.05	352.36	5.3	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					645	968

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	397	0.007	3	0.0	0.0	9.121	A
B-AD	2	0.47	185	0.010	2	0.0	0.0	19.675	C
A-BCD	160	40	566	0.283	158	0.0	0.4	8.813	A
A-B	4	0.92			4				
A-C	812	203			812				
D-AB	301	75	611	0.492	297	0.0	0.9	11.328	B
D-BC	38	9	224	0.170	37	0.0	0.2	19.216	C
C-ABD	0	0	769	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	529	132			529				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	402	0.008	3	0.0	0.0	9.015	A
B-AD	2	0.56	75	0.030	2	0.0	0.0	49.560	E
A-BCD	214	54	601	0.356	213	0.4	0.7	9.282	A
A-B	4	1			4				
A-C	947	237			947				
D-AB	359	90	560	0.641	356	0.9	1.7	17.380	C
D-BC	45	11	152	0.298	44	0.2	0.4	33.193	D
C-ABD	0	0	672	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	632	158			632				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1366.172	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1473.733	F
A-BCD	335	84	712	0.471	332	0.7	1.3	9.512	A
A-B	5	1			5				
A-C	1087	272			1087				
D-AB	440	110	413	1.067	390	1.7	14.2	95.655	F
D-BC	55	14	52	1.053	42	0.4	3.7	244.392	F
C-ABD	0	0	539	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	774	194			774				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	477.599	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	625.950	F
A-BCD	335	84	712	0.471	335	1.3	1.4	9.642	A
A-B	5	1			5				
A-C	1087	272			1087				
D-AB	440	110	385	1.145	381	14.2	29.1	214.845	F
D-BC	55	14	54	1.022	49	3.7	5.3	352.359	F
C-ABD	0	0	537	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	774	194			774				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.81	347	0.009	12	2.2	0.0	11.025	B
B-AD	2	0.54	38	0.057	6	1.1	0.1	123.472	F
A-BCD	214	54	601	0.356	217	1.4	0.7	9.460	A
A-B	4	1			4				
A-C	947	237			947				
D-AB	359	90	526	0.684	466	29.1	2.5	95.992	F
D-BC	45	11	100	0.452	62	5.3	1.0	116.828	F
C-ABD	0	0	670	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	632	158			632				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	476	0.006	3	0.0	0.0	7.612	A
B-AD	2	0.47	150	0.012	2	0.1	0.0	24.316	C
A-BCD	160	40	566	0.283	161	0.7	0.5	8.938	A
A-B	4	0.92			4				
A-C	812	203			812				
D-AB	301	75	608	0.495	307	2.5	1.0	12.193	B
D-BC	38	9	222	0.171	41	1.0	0.2	20.235	C
C-ABD	0	0	767	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	529	132			529				

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.33	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1050	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	717	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	833	214
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	714	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.05	29.29	0.0	D	4	7
B-AD	0.46	267.02	0.7	F	9	14
A-BCD	0.55	11.52	1.9	B	273	410
A-B					2	4
A-C					688	1032
D-AB	0.69	22.47	2.1	C	296	444
D-BC	0.14	54.85	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					655	983

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	375	0.009	3	0.0	0.0	9.682	A
B-AD	8	2	186	0.042	8	0.0	0.0	20.175	C
A-BCD	183	46	559	0.328	181	0.0	0.5	9.476	A
A-B	2	0.54			2				
A-C	605	151			605				
D-AB	243	61	613	0.396	240	0.0	0.6	9.595	A
D-BC	7	2	233	0.031	7	0.0	0.0	15.911	C
C-ABD	0	0	831	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	538	134			538				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	305	0.014	4	0.0	0.0	11.935	B
B-AD	9	2	120	0.078	9	0.0	0.1	32.343	D
A-BCD	246	61	591	0.415	244	0.5	0.9	10.314	B
A-B	3	0.63			3				
A-C	696	174			696				
D-AB	290	72	575	0.504	289	0.6	1.0	12.511	B
D-BC	8	2	168	0.050	8	0.0	0.1	22.523	C
C-ABD	0	0	746	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	642	160			642				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	152	0.037	6	0.0	0.0	24.282	C
B-AD	11	3	25	0.428	9	0.1	0.5	208.097	F
A-BCD	390	98	703	0.555	386	0.9	1.8	11.255	B
A-B	3	0.69			3				
A-C	763	191			763				
D-AB	355	89	515	0.690	351	1.0	2.1	21.368	C
D-BC	10	3	78	0.133	10	0.1	0.1	52.805	F
C-ABD	0	0	629	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	786	197			786				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	128	0.046	6	0.0	0.0	29.287	D
B-AD	11	3	23	0.465	10	0.5	0.7	267.018	F
A-BCD	390	98	707	0.552	390	1.8	1.9	11.523	B
A-B	3	0.69			3				
A-C	763	191			763				
D-AB	355	89	514	0.691	355	2.1	2.1	22.473	C
D-BC	10	3	76	0.136	10	0.1	0.2	54.848	F
C-ABD	0	0	627	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	786	197			786				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	299	0.014	4	0.0	0.0	12.401	B
B-AD	9	2	117	0.080	12	0.7	0.1	34.484	D
A-BCD	246	61	599	0.410	250	1.9	0.9	10.640	B
A-B	3	0.63			3				
A-C	696	174			696				
D-AB	290	72	574	0.505	294	2.1	1.0	13.050	B
D-BC	8	2	166	0.051	9	0.2	0.1	23.020	C
C-ABD	0	0	742	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	642	160			642				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	374	0.009	3	0.0	0.0	9.737	A
B-AD	8	2	184	0.043	8	0.1	0.0	20.433	C
A-BCD	183	46	562	0.326	185	0.9	0.6	9.661	A
A-B	2	0.54			2				
A-C	605	151			605				
D-AB	243	61	613	0.396	244	1.0	0.7	9.814	A
D-BC	7	2	232	0.031	7	0.1	0.0	16.052	C
C-ABD	0	0	829	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	538	134			538				

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	45.54	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1298	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	708	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1106	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	701	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1366.19	2.2	F	3	5
B-AD	9999999999.00	1473.31	1.1	F	2	3
A-BCD	0.47	9.63	1.4	A	236	355
A-B					4	6
A-C					950	1426
D-AB	1.14	212.82	28.8	F	367	550
D-BC	1.05	350.19	5.2	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					643	965

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	397	0.007	3	0.0	0.0	9.128	A
B-AD	2	0.47	185	0.010	2	0.0	0.0	19.693	C
A-BCD	160	40	566	0.283	158	0.0	0.4	8.805	A
A-B	4	0.92			4				
A-C	813	203			813				
D-AB	301	75	612	0.492	297	0.0	0.9	11.313	B
D-BC	38	9	224	0.170	37	0.0	0.2	19.200	C
C-ABD	0	0	769	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	528	132			528				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	402	0.008	3	0.0	0.0	9.024	A
B-AD	2	0.56	75	0.030	2	0.0	0.0	49.675	E
A-BCD	214	54	602	0.356	213	0.4	0.7	9.271	A
A-B	4	1			4				
A-C	949	237			949				
D-AB	359	90	561	0.641	356	0.9	1.7	17.336	C
D-BC	45	11	152	0.297	44	0.2	0.4	33.127	D
C-ABD	0	0	671	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	630	158			630				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1366.186	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1473.306	F
A-BCD	335	84	712	0.470	332	0.7	1.3	9.497	A
A-B	5	1			5				
A-C	1089	272			1089				
D-AB	440	110	413	1.065	391	1.7	14.1	94.941	F
D-BC	55	14	53	1.051	42	0.4	3.6	243.535	F
C-ABD	0	0	538	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	772	193			772				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	477.621	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	625.340	F
A-BCD	335	84	712	0.470	335	1.3	1.4	9.626	A
A-B	5	1			5				
A-C	1089	272			1089				
D-AB	440	110	385	1.143	381	14.1	28.8	212.820	F
D-BC	55	14	54	1.020	49	3.6	5.2	350.195	F
C-ABD	0	0	536	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	772	193			772				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.81	347	0.009	12	2.2	0.0	11.037	B
B-AD	2	0.54	38	0.057	6	1.1	0.1	122.948	F
A-BCD	214	54	601	0.356	217	1.4	0.7	9.450	A
A-B	4	1			4				
A-C	949	237			949				
D-AB	359	90	526	0.682	465	28.8	2.5	93.884	F
D-BC	45	11	101	0.447	62	5.2	0.9	113.587	F
C-ABD	0	0	669	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	630	158			630				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	475	0.006	3	0.0	0.0	7.618	A
B-AD	2	0.47	150	0.013	2	0.1	0.0	24.333	C
A-BCD	160	40	566	0.283	161	0.7	0.5	8.927	A
A-B	4	0.92			4				
A-C	813	203			813				
D-AB	301	75	608	0.495	307	2.5	1.0	12.167	B
D-BC	38	9	222	0.171	41	0.9	0.2	20.196	C
C-ABD	0	0	767	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	528	132			528				

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.22	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1042	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	719	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	825	214
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	716	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.04	26.78	0.0	D	4	7
B-AD	0.43	237.19	0.6	F	9	14
A-BCD	0.56	11.58	1.9	B	273	409
A-B					2	4
A-C					681	1022
D-AB	0.69	22.52	2.2	C	296	444
D-BC	0.13	54.40	0.1	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					657	986

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	377	0.009	3	0.0	0.0	9.641	A
B-AD	8	2	187	0.042	8	0.0	0.0	20.044	C
A-BCD	183	46	558	0.328	181	0.0	0.5	9.493	A
A-B	2	0.54			2				
A-C	599	150			599				
D-AB	243	61	613	0.396	240	0.0	0.6	9.606	A
D-BC	7	2	234	0.030	7	0.0	0.0	15.876	C
C-ABD	0	0	834	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	539	135			539				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	308	0.013	4	0.0	0.0	11.854	B
B-AD	9	2	122	0.077	9	0.0	0.1	31.946	D
A-BCD	245	61	590	0.416	244	0.5	0.9	10.345	B
A-B	3	0.63			3				
A-C	689	172			689				
D-AB	290	72	574	0.505	289	0.6	1.0	12.532	B
D-BC	8	2	169	0.050	8	0.0	0.1	22.443	C
C-ABD	0	0	749	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	644	161			644				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	160	0.035	6	0.0	0.0	23.138	C
B-AD	11	3	27	0.400	9	0.1	0.5	189.820	F
A-BCD	389	97	701	0.556	385	0.9	1.8	11.312	B
A-B	3	0.69			3				
A-C	755	189			755				
D-AB	355	89	515	0.690	351	1.0	2.1	21.413	C
D-BC	10	3	78	0.132	10	0.1	0.1	52.383	F
C-ABD	0	0	633	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	788	197			788				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	140	0.041	6	0.0	0.0	26.776	D
B-AD	11	3	25	0.432	10	0.5	0.6	237.191	F
A-BCD	389	97	705	0.552	389	1.8	1.9	11.581	B
A-B	3	0.69			3				
A-C	755	189			755				
D-AB	355	89	514	0.691	355	2.1	2.2	22.523	C
D-BC	10	3	76	0.135	10	0.1	0.1	54.396	F
C-ABD	0	0	631	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	788	197			788				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	301	0.014	4	0.0	0.0	12.274	B
B-AD	9	2	119	0.079	11	0.6	0.1	33.875	D
A-BCD	245	61	597	0.410	249	1.9	0.9	10.671	B
A-B	3	0.63			3				
A-C	689	172			689				
D-AB	290	72	574	0.505	294	2.2	1.0	13.075	B
D-BC	8	2	166	0.051	9	0.1	0.1	22.930	C
C-ABD	0	0	746	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	644	161			644				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	375	0.009	3	0.0	0.0	9.694	A
B-AD	8	2	185	0.042	8	0.1	0.0	20.300	C
A-BCD	183	46	561	0.326	185	0.9	0.6	9.680	A
A-B	2	0.54			2				
A-C	599	150			599				
D-AB	243	61	612	0.397	244	1.0	0.7	9.825	A
D-BC	7	2	232	0.031	7	0.1	0.0	16.015	C
C-ABD	0	0	832	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	539	135			539				

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	40.89	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1289	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	697	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1097	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	690	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1365.82	2.2	F	3	5
B-AD	9999999999.00	1452.56	1.1	F	2	3
A-BCD	0.47	9.61	1.4	A	235	352
A-B					4	6
A-C					944	1416
D-AB	1.11	185.37	24.9	F	367	550
D-BC	1.03	322.70	4.8	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					633	950

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	399	0.007	3	0.0	0.0	9.071	A
B-AD	2	0.47	188	0.010	2	0.0	0.0	19.324	C
A-BCD	160	40	567	0.282	158	0.0	0.4	8.778	A
A-B	4	0.92			4				
A-C	807	202			807				
D-AB	301	75	614	0.490	297	0.0	0.9	11.218	B
D-BC	38	9	227	0.167	37	0.0	0.2	18.892	C
C-ABD	0	0	772	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	519	130			519				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	406	0.008	3	0.0	0.0	8.928	A
B-AD	2	0.56	78	0.029	2	0.0	0.0	47.309	E
A-BCD	213	53	602	0.354	212	0.4	0.7	9.245	A
A-B	4	1			4				
A-C	941	235			941				
D-AB	359	90	565	0.636	356	0.9	1.7	17.027	C
D-BC	45	11	156	0.290	45	0.2	0.4	32.060	D
C-ABD	0	0	675	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	620	155			620				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1365.817	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1452.557	F
A-BCD	331	83	710	0.467	329	0.7	1.3	9.481	A
A-B	5	1			5				
A-C	1083	271			1083				
D-AB	440	110	424	1.039	397	1.7	12.5	85.615	F
D-BC	55	14	54	1.026	43	0.4	3.5	231.959	F
C-ABD	0	0	543	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	760	190			760				

17:30 - 17:45

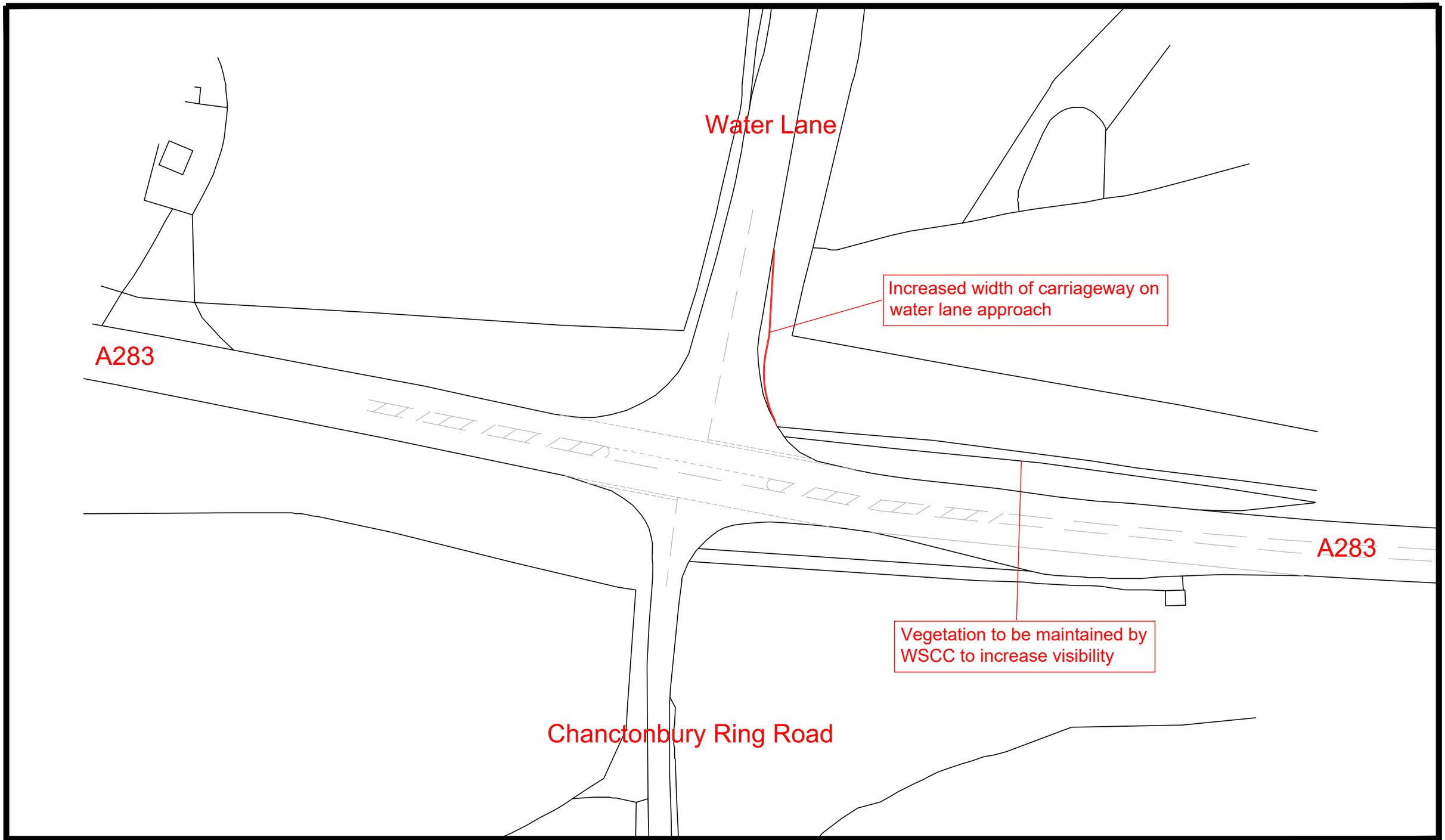
Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	476.993	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	595.879	F
A-BCD	331	83	710	0.467	331	1.3	1.4	9.607	A
A-B	5	1			5				
A-C	1083	271			1083				
D-AB	440	110	396	1.111	391	12.5	24.9	185.373	F
D-BC	55	14	56	0.987	50	3.5	4.8	322.702	F
C-ABD	0	0	541	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	760	190			760				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.80	355	0.009	12	2.2	0.0	10.769	B
B-AD	2	0.55	46	0.048	6	1.1	0.1	98.506	F
A-BCD	213	53	602	0.354	216	1.4	0.7	9.419	A
A-B	4	1			4				
A-C	941	235			941				
D-AB	359	90	535	0.672	450	24.9	2.3	69.798	F
D-BC	45	11	115	0.394	62	4.8	0.7	82.364	F
C-ABD	0	0	673	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	620	155			620				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	478	0.006	3	0.0	0.0	7.572	A
B-AD	2	0.47	154	0.012	2	0.1	0.0	23.793	C
A-BCD	160	40	567	0.282	161	0.7	0.5	8.901	A
A-B	4	0.92			4				
A-C	807	202			807				
D-AB	301	75	612	0.492	306	2.3	1.0	11.964	B
D-BC	38	9	225	0.169	40	0.7	0.2	19.675	C
C-ABD	0	0	770	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	519	130			519				



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2. DO NOT SCALE FROM THIS DRAWING.
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5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A283 / WATER

Date	Drawn		
15/11/2021	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
1/500@A3	APPENDIX 15.2		

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: Junction 2 (Water Lane) Proposed.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 2 (Water Lane)
Report generation date: 20/01/2022 11:43:52

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 15.3
PICADY OUTPUTS: PROPOSED DEVELOPMENT SCENARIOS
(WITH PROPOSED JUNCTION IMPROVEMENTS)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
Stream B-CD	0.1	46.14	0.07	E	6.73	A	-18 % [Stream B-AD]	2.2	1366.20	9999999999.00	F	40.84	E	-24 % [Stream B-AD]
Stream B-AD	0.9	389.23	0.58	F				1.1	1467.25	9999999999.00	F			
Stream A-BCD	2.0	11.53	0.56	B				1.4	9.68	0.47	A			
Stream D-AB	2.0	21.29	0.68	C				25.4	187.92	1.12	F			
Stream D-BC	0.2	55.65	0.14	F				4.9	324.06	1.02	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 2 Total														
Stream B-CD	0.1	31.42	0.05	D	6.21	A	-17 % [Stream B-AD]	2.2	1366.02	9999999999.00	F	37.80	E	-24 % [Stream B-AD]
Stream B-AD	0.7	288.97	0.49	F				1.1	1455.43	9999999999.00	F			
Stream A-BCD	2.0	11.54	0.56	B				1.4	9.64	0.47	A			
Stream D-AB	2.0	20.98	0.68	C				22.7	169.97	1.10	F			
Stream D-BC	0.1	53.62	0.13	F				4.6	307.57	1.01	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 3 Total														
Stream B-CD	0.0	29.11	0.05	D	6.07	A	-17 % [Stream B-AD]	2.2	1366.03	9999999999.00	F	37.48	E	-24 % [Stream B-AD]
Stream B-AD	0.7	264.60	0.46	F				1.1	1455.18	9999999999.00	F			
Stream A-BCD	1.9	11.52	0.55	B				1.4	9.63	0.47	A			
Stream D-AB	2.0	20.77	0.67	C				22.5	168.21	1.09	F			
Stream D-BC	0.1	52.59	0.13	F				4.6	305.97	1.00	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Scenario 4 Total														
Stream B-CD	0.0	26.65	0.04	D	5.95	A	-17 % [Stream B-AD]	2.2	1365.72	9999999999.00	F	33.50	D	-23 % [Stream B-AD]
Stream B-AD	0.6	235.22	0.43	F				1.1	1440.45	9999999999.00	F			
Stream A-BCD	1.9	11.58	0.56	B				1.4	9.61	0.47	A			
Stream D-AB	2.0	20.82	0.67	C				18.9	144.51	1.06	F			
Stream D-BC	0.1	52.13	0.13	F				4.3	284.46	0.98	F			
Stream C-ABD	0.0	0.00	0.00	A				0.0	0.00	0.00	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15			
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.73	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	Stream B-AD

Arms

Arms

Arm	Name	Description	Arm type
A	A283 East		Major
B	Chanctonbury Ring Road		Minor
C	A283 West		Major
D	Water Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A283 East	6.80		✓	2.20	100.0	✓	2.00
C - A283 West	6.80		✓	2.20	100.0	✓	2.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Chanctonbury Ring Road	One lane plus flare	10.00	3.40	2.20	2.20	2.20	✓	1.00	51	80
D - Water Lane	One lane plus flare	10.00	8.30	6.00	5.50	5.00	✓	3.00	100	106

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	632	-	-	-	-	-	-	0.236	0.338	0.236	-	-	-
1	B-A	534	0.094	0.237	0.237	-	-	-	0.149	0.339	-	0.237	0.237	0.119
1	B-C	809	0.120	0.303	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	641	0.113	0.285	0.285	-	-	-	0.179	0.407	0.179	-	-	-
1	B-D, offside lane	534	0.094	0.237	0.237	-	-	-	0.149	0.339	0.149	-	-	-
1	C-B	632	0.236	0.236	0.338	-	-	-	-	-	-	-	-	-
1	D-A	827	-	-	-	-	-	-	0.309	-	0.122	-	-	-
1	D-B, nearside lane	675	0.189	0.189	0.428	-	-	-	0.300	0.300	0.119	-	-	-
1	D-B, offside lane	507	0.142	0.142	0.322	-	-	-	0.225	0.225	0.089	-	-	-
1	D-C	507	-	0.142	0.322	0.113	0.225	0.225	0.225	0.225	0.089	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1063	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	723	100.000
D - Water Lane		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	845	215
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	720	0	0	3
	D - Water Lane	322	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.07	46.14	0.1	E	5	7
B-AD	0.58	389.23	0.9	F	9	14
A-BCD	0.56	11.53	2.0	B	277	415
A-B					2	4
A-C					696	1044
D-AB	0.68	21.29	2.0	C	297	445
D-BC	0.14	55.65	0.2	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					661	991

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	372	0.009	3	0.0	0.0	9.773	A
B-AD	8	2	183	0.043	8	0.0	0.0	20.521	C
A-BCD	185	46	560	0.330	183	0.0	0.5	9.491	A
A-B	2	0.54			2				
A-C	613	153			613				
D-AB	244	61	628	0.388	241	0.0	0.6	9.258	A
D-BC	7	2	219	0.032	7	0.0	0.0	16.958	C
C-ABD	0	0	826	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	542	136			542				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	301	0.014	4	0.0	0.0	12.127	B
B-AD	9	2	117	0.080	9	0.0	0.1	33.455	D
A-BCD	249	62	594	0.419	247	0.5	0.9	10.324	B
A-B	3	0.63			3				
A-C	705	176			705				
D-AB	291	73	588	0.495	290	0.6	1.0	12.007	B
D-BC	8	2	160	0.053	8	0.0	0.1	23.709	C
C-ABD	0	0	740	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	647	162			647				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	128	0.046	6	0.0	0.0	29.068	D
B-AD	11	3	20	0.527	8	0.1	0.7	276.162	F
A-BCD	397	99	710	0.560	393	0.9	1.9	11.257	B
A-B	3	0.68			3				
A-C	770	193			770				
D-AB	356	89	525	0.678	352	1.0	2.0	20.317	C
D-BC	10	3	77	0.134	10	0.1	0.1	53.731	F
C-ABD	0	0	622	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	793	198			793				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	2	84	0.074	6	0.0	0.1	46.145	E
B-AD	10	3	18	0.583	9	0.7	0.9	389.233	F
A-BCD	397	99	714	0.556	397	1.9	2.0	11.533	B
A-B	3	0.68			3				
A-C	770	193			770				
D-AB	356	89	524	0.679	356	2.0	2.0	21.288	C
D-BC	10	3	75	0.137	10	0.1	0.2	55.650	F
C-ABD	0	0	620	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	793	198			793				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	291	0.014	4	0.1	0.0	12.790	B
B-AD	9	2	113	0.083	13	0.9	0.1	36.416	E
A-BCD	249	62	601	0.413	253	2.0	1.0	10.661	B
A-B	3	0.63			3				
A-C	705	176			705				
D-AB	291	73	587	0.495	295	2.0	1.0	12.482	B
D-BC	8	2	158	0.054	9	0.2	0.1	24.199	C
C-ABD	0	0	737	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	647	162			647				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	370	0.009	3	0.0	0.0	9.838	A
B-AD	8	2	181	0.043	8	0.1	0.0	20.787	C
A-BCD	185	46	563	0.328	186	1.0	0.6	9.682	A
A-B	2	0.54			2				
A-C	613	153			613				
D-AB	244	61	627	0.388	245	1.0	0.6	9.452	A
D-BC	7	2	218	0.033	7	0.1	0.0	17.096	C
C-ABD	0	0	824	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	542	136			542				

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	40.84	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1298	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	719	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1106	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	712	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1366.20	2.2	F	3	5
B-AD	9999999999.00	1467.25	1.1	F	2	3
A-BCD	0.47	9.68	1.4	A	238	356
A-B					4	6
A-C					949	1424
D-AB	1.12	187.92	25.4	F	367	550
D-BC	1.02	324.06	4.9	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					653	980

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	396	0.007	3	0.0	0.0	9.142	A
B-AD	2	0.47	183	0.010	2	0.0	0.0	19.858	C
A-BCD	160	40	565	0.284	159	0.0	0.4	8.840	A
A-B	4	0.92			4				
A-C	813	203			813				
D-AB	301	75	620	0.485	297	0.0	0.9	11.024	B
D-BC	38	9	215	0.177	37	0.0	0.2	20.147	C
C-ABD	0	0	769	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	536	134			536				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	401	0.008	3	0.0	0.0	9.054	A
B-AD	2	0.56	73	0.031	2	0.0	0.0	50.765	F
A-BCD	215	54	600	0.358	214	0.4	0.7	9.312	A
A-B	4	1			4				
A-C	948	237			948				
D-AB	359	90	569	0.631	356	0.9	1.6	16.678	C
D-BC	45	11	151	0.300	44	0.2	0.4	33.577	D
C-ABD	0	0	671	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	640	160			640				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1366.203	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1467.248	F
A-BCD	337	84	713	0.473	335	0.7	1.4	9.539	A
A-B	5	1			5				
A-C	1087	272			1087				
D-AB	440	110	424	1.038	397	1.6	12.4	85.205	F
D-BC	55	14	54	1.023	43	0.4	3.5	232.169	F
C-ABD	0	0	538	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	784	196			784				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	477.651	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	616.704	F
A-BCD	337	84	713	0.473	337	1.4	1.4	9.675	A
A-B	5	1			5				
A-C	1087	272			1087				
D-AB	440	110	394	1.118	388	12.4	25.4	187.917	F
D-BC	55	14	55	0.994	49	3.5	4.9	324.058	F
C-ABD	0	0	536	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	784	196			784				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.81	346	0.009	12	2.2	0.0	11.050	B
B-AD	2	0.54	40	0.054	6	1.1	0.1	115.585	F
A-BCD	215	54	600	0.358	217	1.4	0.7	9.497	A
A-B	4	1			4				
A-C	948	237			948				
D-AB	359	90	543	0.662	452	25.4	2.2	67.391	F
D-BC	45	11	119	0.382	62	4.9	0.7	77.298	F
C-ABD	0	0	669	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	640	160			640				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	474	0.006	3	0.0	0.0	7.632	A
B-AD	2	0.47	149	0.013	2	0.1	0.0	24.469	C
A-BCD	160	40	565	0.284	162	0.7	0.5	8.965	A
A-B	4	0.92			4				
A-C	813	203			813				
D-AB	301	75	618	0.487	306	2.2	1.0	11.714	B
D-BC	38	9	214	0.178	40	0.7	0.2	20.905	C
C-ABD	0	0	767	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	536	134			536				

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.21	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1052	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	721	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	835	214
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	718	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.05	31.42	0.1	D	4	7
B-AD	0.49	288.97	0.7	F	9	14
A-BCD	0.56	11.54	2.0	B	274	411
A-B					2	4
A-C					689	1034
D-AB	0.68	20.98	2.0	C	296	444
D-BC	0.13	53.62	0.1	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					659	988

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	374	0.009	3	0.0	0.0	9.705	A
B-AD	8	2	185	0.042	8	0.0	0.0	20.264	C
A-BCD	183	46	559	0.328	181	0.0	0.5	9.487	A
A-B	2	0.54			2				
A-C	606	152			606				
D-AB	243	61	628	0.387	240	0.0	0.6	9.170	A
D-BC	7	2	221	0.032	7	0.0	0.0	16.825	C
C-ABD	0	0	830	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	541	135			541				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	304	0.014	4	0.0	0.0	11.983	B
B-AD	9	2	119	0.078	9	0.0	0.1	32.619	D
A-BCD	246	62	591	0.416	245	0.5	0.9	10.328	B
A-B	3	0.63			3				
A-C	697	174			697				
D-AB	290	72	589	0.493	289	0.6	0.9	11.946	B
D-BC	8	2	162	0.052	8	0.0	0.1	23.399	C
C-ABD	0	0	745	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	645	161			645				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	147	0.039	6	0.0	0.0	25.169	D
B-AD	11	3	24	0.449	9	0.1	0.6	221.832	F
A-BCD	392	98	704	0.556	388	0.9	1.9	11.273	B
A-B	3	0.69			3				
A-C	764	191			764				
D-AB	355	89	527	0.674	351	0.9	1.9	20.057	C
D-BC	10	3	79	0.130	10	0.1	0.1	51.904	F
C-ABD	0	0	628	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	791	198			791				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	120	0.049	6	0.0	0.1	31.418	D
B-AD	11	3	22	0.488	10	0.6	0.7	288.966	F
A-BCD	392	98	708	0.553	391	1.9	1.9	11.541	B
A-B	3	0.69			3				
A-C	764	191			764				
D-AB	355	89	526	0.676	355	1.9	2.0	20.976	C
D-BC	10	3	77	0.133	10	0.1	0.1	53.623	F
C-ABD	0	0	626	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	791	198			791				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	297	0.014	4	0.0	0.0	12.480	B
B-AD	9	2	116	0.080	12	0.7	0.1	34.879	D
A-BCD	246	62	599	0.411	250	1.9	0.9	10.657	B
A-B	3	0.63			3				
A-C	697	174			697				
D-AB	290	72	588	0.493	294	2.0	1.0	12.407	B
D-BC	8	2	160	0.053	9	0.1	0.1	23.850	C
C-ABD	0	0	742	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	645	161			645				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	373	0.009	3	0.0	0.0	9.761	A
B-AD	8	2	183	0.043	8	0.1	0.0	20.520	C
A-BCD	183	46	562	0.326	185	0.9	0.6	9.675	A
A-B	2	0.54			2				
A-C	606	152			606				
D-AB	243	61	628	0.387	244	1.0	0.6	9.422	A
D-BC	7	2	220	0.032	7	0.1	0.0	16.960	C
C-ABD	0	0	828	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	541	135			541				

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	37.80	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1296	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	710	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1104	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	703	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1366.02	2.2	F	3	5
B-AD	9999999999.00	1455.43	1.1	F	2	3
A-BCD	0.47	9.64	1.4	A	236	355
A-B					4	6
A-C					948	1423
D-AB	1.10	169.97	22.7	F	367	550
D-BC	1.01	307.57	4.6	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					645	968

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	397	0.007	3	0.0	0.0	9.121	A
B-AD	2	0.47	185	0.010	2	0.0	0.0	19.675	C
A-BCD	160	40	566	0.283	158	0.0	0.4	8.813	A
A-B	4	0.92			4				
A-C	812	203			812				
D-AB	301	75	622	0.483	297	0.0	0.9	10.950	B
D-BC	38	9	217	0.175	37	0.0	0.2	19.949	C
C-ABD	0	0	769	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	529	132			529				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	402	0.008	3	0.0	0.0	9.014	A
B-AD	2	0.56	75	0.030	2	0.0	0.0	49.542	E
A-BCD	214	54	601	0.356	213	0.4	0.7	9.282	A
A-B	4	1			4				
A-C	947	237			947				
D-AB	359	90	572	0.628	356	0.9	1.6	16.460	C
D-BC	45	11	153	0.296	44	0.2	0.4	32.912	D
C-ABD	0	0	672	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	632	158			632				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1366.019	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1455.432	F
A-BCD	335	84	712	0.471	332	0.7	1.3	9.512	A
A-B	5	1			5				
A-C	1087	272			1087				
D-AB	440	110	431	1.021	401	1.6	11.4	79.160	F
D-BC	55	14	55	1.006	43	0.4	3.4	224.453	F
C-ABD	0	0	539	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	774	194			774				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	477.338	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	599.927	F
A-BCD	335	84	712	0.471	335	1.3	1.4	9.642	A
A-B	5	1			5				
A-C	1087	272			1087				
D-AB	440	110	402	1.096	395	11.4	22.7	169.975	F
D-BC	55	14	57	0.972	50	3.4	4.6	307.574	F
C-ABD	0	0	537	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	774	194			774				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.80	350	0.009	12	2.2	0.0	10.917	B
B-AD	2	0.55	45	0.049	6	1.1	0.1	101.732	F
A-BCD	214	54	601	0.356	217	1.4	0.7	9.460	A
A-B	4	1			4				
A-C	947	237			947				
D-AB	359	90	548	0.656	442	22.7	2.1	54.998	F
D-BC	45	11	126	0.359	61	4.6	0.6	66.389	F
C-ABD	0	0	670	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	632	158			632				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	476	0.006	3	0.0	0.0	7.614	A
B-AD	2	0.47	151	0.012	2	0.1	0.0	24.205	C
A-BCD	160	40	566	0.283	161	0.7	0.5	8.938	A
A-B	4	0.92			4				
A-C	812	203			812				
D-AB	301	75	620	0.485	305	2.1	1.0	11.594	B
D-BC	38	9	215	0.176	40	0.6	0.2	20.625	C
C-ABD	0	0	767	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	529	132			529				

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	6.07	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1050	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	717	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	833	214
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	714	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.05	29.11	0.0	D	4	7
B-AD	0.46	264.60	0.7	F	9	14
A-BCD	0.55	11.52	1.9	B	273	410
A-B					2	4
A-C					688	1032
D-AB	0.67	20.77	2.0	C	296	444
D-BC	0.13	52.59	0.1	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					655	983

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	375	0.009	3	0.0	0.0	9.682	A
B-AD	8	2	186	0.042	8	0.0	0.0	20.175	C
A-BCD	183	46	559	0.328	181	0.0	0.5	9.476	A
A-B	2	0.54			2				
A-C	605	151			605				
D-AB	243	61	629	0.386	240	0.0	0.6	9.207	A
D-BC	7	2	222	0.032	7	0.0	0.0	16.752	C
C-ABD	0	0	831	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	538	134			538				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	305	0.014	4	0.0	0.0	11.935	B
B-AD	9	2	120	0.078	9	0.0	0.1	32.336	D
A-BCD	246	61	591	0.415	244	0.5	0.9	10.314	B
A-B	3	0.63			3				
A-C	696	174			696				
D-AB	290	72	590	0.492	289	0.6	0.9	11.902	B
D-BC	8	2	163	0.052	8	0.0	0.1	23.235	C
C-ABD	0	0	746	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	642	160			642				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	153	0.037	6	0.0	0.0	24.259	C
B-AD	11	3	25	0.427	9	0.1	0.5	207.588	F
A-BCD	390	98	703	0.555	386	0.9	1.8	11.255	B
A-B	3	0.69			3				
A-C	763	191			763				
D-AB	355	89	528	0.672	351	0.9	1.9	19.885	C
D-BC	10	3	80	0.128	10	0.1	0.1	50.961	F
C-ABD	0	0	629	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	786	197			786				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	129	0.045	6	0.0	0.0	29.106	D
B-AD	11	3	23	0.462	10	0.5	0.7	264.604	F
A-BCD	390	98	707	0.552	390	1.8	1.9	11.523	B
A-B	3	0.69			3				
A-C	763	191			763				
D-AB	355	89	528	0.673	355	1.9	2.0	20.773	C
D-BC	10	3	79	0.131	10	0.1	0.1	52.587	F
C-ABD	0	0	627	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	786	197			786				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	299	0.014	4	0.0	0.0	12.394	B
B-AD	9	2	117	0.080	12	0.7	0.1	34.426	D
A-BCD	246	61	599	0.410	250	1.9	0.9	10.640	B
A-B	3	0.63			3				
A-C	696	174			696				
D-AB	290	72	589	0.492	294	2.0	1.0	12.350	B
D-BC	8	2	161	0.053	9	0.1	0.1	23.672	C
C-ABD	0	0	742	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	642	160			642				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	374	0.009	3	0.0	0.0	9.737	A
B-AD	8	2	184	0.043	8	0.1	0.0	20.428	C
A-BCD	183	46	562	0.326	185	0.9	0.6	9.661	A
A-B	2	0.54			2				
A-C	605	151			605				
D-AB	243	61	629	0.386	244	1.0	0.6	9.396	A
D-BC	7	2	220	0.032	7	0.1	0.0	16.890	C
C-ABD	0	0	829	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	538	134			538				

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	37.48	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1298	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	708	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1106	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	701	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1366.03	2.2	F	3	5
B-AD	9999999999.00	1455.18	1.1	F	2	3
A-BCD	0.47	9.63	1.4	A	236	355
A-B					4	6
A-C					950	1426
D-AB	1.09	168.21	22.5	F	367	550
D-BC	1.00	305.97	4.6	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					643	965

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	397	0.007	3	0.0	0.0	9.128	A
B-AD	2	0.47	185	0.010	2	0.0	0.0	19.693	C
A-BCD	160	40	566	0.283	158	0.0	0.4	8.805	A
A-B	4	0.92			4				
A-C	813	203			813				
D-AB	301	75	623	0.483	297	0.0	0.9	10.935	B
D-BC	38	9	217	0.175	37	0.0	0.2	19.933	C
C-ABD	0	0	769	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	528	132			528				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	402	0.008	3	0.0	0.0	9.024	A
B-AD	2	0.56	75	0.030	2	0.0	0.0	49.656	E
A-BCD	214	54	602	0.356	213	0.4	0.7	9.271	A
A-B	4	1			4				
A-C	949	237			949				
D-AB	359	90	573	0.627	356	0.9	1.6	16.420	C
D-BC	45	11	153	0.295	45	0.2	0.4	32.830	D
C-ABD	0	0	671	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	630	158			630				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1366.034	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1455.180	F
A-BCD	335	84	712	0.470	332	0.7	1.3	9.497	A
A-B	5	1			5				
A-C	1089	272			1089				
D-AB	440	110	432	1.019	402	1.6	11.2	78.542	F
D-BC	55	14	55	1.005	43	0.4	3.4	223.615	F
C-ABD	0	0	538	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	772	193			772				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	477.363	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	599.566	F
A-BCD	335	84	712	0.470	335	1.3	1.4	9.626	A
A-B	5	1			5				
A-C	1089	272			1089				
D-AB	440	110	402	1.094	395	11.2	22.5	168.207	F
D-BC	55	14	57	0.970	50	3.4	4.6	305.969	F
C-ABD	0	0	536	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	772	193			772				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.80	350	0.009	12	2.2	0.0	10.925	B
B-AD	2	0.55	45	0.049	6	1.1	0.1	101.433	F
A-BCD	214	54	601	0.356	217	1.4	0.7	9.450	A
A-B	4	1			4				
A-C	949	237			949				
D-AB	359	90	549	0.655	441	22.5	2.1	53.800	F
D-BC	45	11	127	0.357	61	4.6	0.6	65.445	F
C-ABD	0	0	669	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	630	158			630				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	475	0.006	3	0.0	0.0	7.619	A
B-AD	2	0.47	151	0.012	2	0.1	0.0	24.222	C
A-BCD	160	40	566	0.283	161	0.7	0.5	8.927	A
A-B	4	0.92			4				
A-C	813	203			813				
D-AB	301	75	621	0.485	305	2.1	1.0	11.573	B
D-BC	38	9	216	0.176	39	0.6	0.2	20.604	C
C-ABD	0	0	767	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	528	132			528				

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	5.95	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1042	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	15	100.000
C - A283 West		ONE HOUR	✓	719	100.000
D - Water Lane		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	3	825	214
	B - Chanctonbury Ring Road	9	0	3	3
	C - A283 West	716	0	0	3
	D - Water Lane	321	3	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	33	9	0
	B - Chanctonbury Ring Road	0	0	0	33
	C - A283 West	10	0	0	0
	D - Water Lane	1	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.04	26.65	0.0	D	4	7
B-AD	0.43	235.22	0.6	F	9	14
A-BCD	0.56	11.58	1.9	B	273	409
A-B					2	4
A-C					681	1022
D-AB	0.67	20.82	2.0	C	296	444
D-BC	0.13	52.13	0.1	F	9	13
C-ABD	0.00	0.00	0.0	A	0	0
C-D					3	4
C-A					657	986

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	377	0.009	3	0.0	0.0	9.641	A
B-AD	8	2	187	0.042	8	0.0	0.0	20.044	C
A-BCD	183	46	558	0.328	181	0.0	0.5	9.493	A
A-B	2	0.54			2				
A-C	599	150			599				
D-AB	243	61	629	0.386	240	0.0	0.6	9.217	A
D-BC	7	2	222	0.032	7	0.0	0.0	16.713	C
C-ABD	0	0	834	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	539	135			539				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	308	0.013	4	0.0	0.0	11.854	B
B-AD	9	2	122	0.077	9	0.0	0.1	31.939	D
A-BCD	245	61	590	0.416	244	0.5	0.9	10.345	B
A-B	3	0.63			3				
A-C	689	172			689				
D-AB	290	72	589	0.492	289	0.6	0.9	11.919	B
D-BC	8	2	164	0.052	8	0.0	0.1	23.149	C
C-ABD	0	0	749	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	644	161			644				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	160	0.035	6	0.0	0.0	23.120	C
B-AD	11	3	27	0.399	9	0.1	0.5	189.396	F
A-BCD	389	97	701	0.556	385	0.9	1.8	11.312	B
A-B	3	0.69			3				
A-C	755	189			755				
D-AB	355	89	528	0.673	351	0.9	1.9	19.926	C
D-BC	10	3	81	0.127	10	0.1	0.1	50.540	F
C-ABD	0	0	633	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	788	197			788				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	6	1	140	0.041	6	0.0	0.0	26.655	D
B-AD	11	3	25	0.429	10	0.5	0.6	235.221	F
A-BCD	389	97	705	0.552	389	1.8	1.9	11.581	B
A-B	3	0.69			3				
A-C	755	189			755				
D-AB	355	89	527	0.674	355	1.9	2.0	20.819	C
D-BC	10	3	79	0.130	10	0.1	0.1	52.131	F
C-ABD	0	0	631	0.000	0	0.0	0.0	0.000	A
C-D	3	0.83			3				
C-A	788	197			788				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	301	0.014	4	0.0	0.0	12.268	B
B-AD	9	2	119	0.079	11	0.6	0.1	33.821	D
A-BCD	245	61	597	0.410	249	1.9	0.9	10.671	B
A-B	3	0.63			3				
A-C	689	172			689				
D-AB	290	72	589	0.493	294	2.0	1.0	12.373	B
D-BC	8	2	162	0.052	9	0.1	0.1	23.578	C
C-ABD	0	0	746	0.000	0	0.0	0.0	0.000	A
C-D	3	0.67			3				
C-A	644	161			644				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.86	375	0.009	3	0.0	0.0	9.696	A
B-AD	8	2	185	0.042	8	0.1	0.0	20.295	C
A-BCD	183	46	561	0.326	185	0.9	0.6	9.680	A
A-B	2	0.54			2				
A-C	599	150			599				
D-AB	243	61	628	0.386	244	1.0	0.6	9.407	A
D-BC	7	2	221	0.032	7	0.1	0.0	16.848	C
C-ABD	0	0	832	0.000	0	0.0	0.0	0.000	A
C-D	2	0.56			2				
C-A	539	135			539				

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Chanctonbury Ring Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	2 - A283/Water Lane/Chanctonbury Ring Road	Crossroads	Two-way	33.50	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	Stream B-AD

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 East		ONE HOUR	✓	1289	100.000
B - Chanctonbury Ring Road		ONE HOUR	✓	6	100.000
C - A283 West		ONE HOUR	✓	697	100.000
D - Water Lane		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	5	1097	187
	B - Chanctonbury Ring Road	2	0	3	1
	C - A283 West	690	0	0	7
	D - Water Lane	399	1	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A283 East	B - Chanctonbury Ring Road	C - A283 West	D - Water Lane
From	A - A283 East	0	0	1	1
	B - Chanctonbury Ring Road	0	0	0	0
	C - A283 West	3	0	0	0
	D - Water Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	9999999999.00	1365.72	2.2	F	3	5
B-AD	9999999999.00	1440.45	1.1	F	2	3
A-BCD	0.47	9.61	1.4	A	235	352
A-B					4	6
A-C					944	1416
D-AB	1.06	144.51	18.9	F	367	550
D-BC	0.98	284.46	4.3	F	46	69
C-ABD	0.00	0.00	0.0	A	0	0
C-D					6	10
C-A					633	950

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	399	0.007	3	0.0	0.0	9.071	A
B-AD	2	0.47	188	0.010	2	0.0	0.0	19.324	C
A-BCD	160	40	567	0.282	158	0.0	0.4	8.778	A
A-B	4	0.92			4				
A-C	807	202			807				
D-AB	301	75	626	0.481	297	0.0	0.9	10.845	B
D-BC	38	9	220	0.173	37	0.0	0.2	19.623	C
C-ABD	0	0	772	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	519	130			519				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.79	406	0.008	3	0.0	0.0	8.928	A
B-AD	2	0.56	78	0.029	2	0.0	0.0	47.293	E
A-BCD	213	53	602	0.354	212	0.4	0.7	9.245	A
A-B	4	1			4				
A-C	941	235			941				
D-AB	359	90	577	0.623	357	0.9	1.6	16.146	C
D-BC	45	11	157	0.289	45	0.2	0.4	31.859	D
C-ABD	0	0	675	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	620	155			620				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	0.0	1.1	1365.724	F
B-AD	2	0.55	0	9999999999.000	0	0.0	0.6	1440.452	F
A-BCD	331	83	710	0.467	329	0.7	1.3	9.481	A
A-B	5	1			5				
A-C	1083	271			1083				
D-AB	440	110	443	0.994	407	1.6	9.9	70.601	F
D-BC	55	14	56	0.981	44	0.4	3.2	212.998	F
C-ABD	0	0	543	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	760	190			760				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	4	1	0	9999999999.000	0	1.1	2.2	476.834	F
B-AD	2	0.55	0	9999999999.000	0	0.6	1.1	578.661	F
A-BCD	331	83	710	0.467	331	1.3	1.4	9.607	A
A-B	5	1			5				
A-C	1083	271			1083				
D-AB	440	110	414	1.063	404	9.9	18.9	144.511	F
D-BC	55	14	59	0.940	51	3.2	4.3	284.459	F
C-ABD	0	0	541	0.000	0	0.0	0.0	0.000	A
C-D	8	2			8				
C-A	760	190			760				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.80	357	0.009	12	2.2	0.0	10.704	B
B-AD	2	0.55	52	0.042	7	1.1	0.0	84.852	F
A-BCD	213	53	602	0.354	216	1.4	0.7	9.419	A
A-B	4	1			4				
A-C	941	235			941				
D-AB	359	90	555	0.647	427	18.9	2.0	41.221	E
D-BC	45	11	136	0.333	60	4.3	0.5	55.107	F
C-ABD	0	0	673	0.000	0	0.0	0.0	0.000	A
C-D	6	2			6				
C-A	620	155			620				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	3	0.66	478	0.006	3	0.0	0.0	7.571	A
B-AD	2	0.47	154	0.012	2	0.0	0.0	23.723	C
A-BCD	160	40	567	0.282	161	0.7	0.5	8.901	A
A-B	4	0.92			4				
A-C	807	202			807				
D-AB	301	75	624	0.482	305	2.0	1.0	11.437	B
D-BC	38	9	219	0.174	39	0.5	0.2	20.209	C
C-ABD	0	0	770	0.000	0	0.0	0.0	0.000	A
C-D	5	1			5				
C-A	519	130			519				

APPENDIX 16.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 4 – A283 / B2135 / HORSHAM ROAD JUNCTIONS

16.1 A283/B2135 PICADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)
16.2 A283/Horsham Road PICADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: Junction 3 (B2135 (North)) Existing.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 3 (B2135)
Report generation date: 12/01/2022 16:24:13

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total , AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 16.1
A283/B2135 PICADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
Stream B-C	0.3	9.34	0.24	A	1.33	A	37 % [Stream C-AB]	0.3	9.42	0.25	A	1.91	A	28 % [Stream C-AB]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	0.7	14.85	0.40	B				1.2	19.62	0.55	C			
Scenario 1 Total														
Stream B-C	0.3	9.54	0.24	A	1.38	A	35 % [Stream C-AB]	0.5	14.80	0.35	B	2.22	A	25 % [Stream C-AB]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	0.7	15.56	0.42	C				1.3	20.71	0.57	C			
Scenario 2 Total														
Stream B-C	0.3	9.52	0.24	A	1.36	A	35 % [Stream C-AB]	0.5	14.54	0.34	B	2.19	A	26 % [Stream C-AB]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	0.7	15.37	0.41	C				1.3	20.45	0.57	C			
Scenario 3 Total														
Stream B-C	0.3	9.48	0.24	A	1.35	A	36 % [Stream C-AB]	0.5	14.51	0.34	B	2.17	A	26 % [Stream C-AB]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	0.7	15.23	0.41	C				1.3	20.28	0.56	C			
Scenario 4 Total														
Stream B-C	0.3	9.50	0.24	A	1.34	A	36 % [Stream C-AB]	0.5	14.28	0.33	B	2.16	A	27 % [Stream C-AB]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	0.7	15.12	0.41	C				1.3	20.08	0.56	C			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/01/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.33	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	37	Stream C-AB

Arms

Arms

Arm	Name	Description	Arm type
A	A283 (West)		Major
B	B2135		Minor
C	A283 (East)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A283 (East)	8.30		✓	3.20	100.0	✓	9.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - B2135	One lane plus flare	10.00	7.20	5.20	4.00	3.90	✓	2.00	124	214

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	595	0.097	0.246	0.155	0.352
1	B-C	879	0.121	0.306	-	-
1	C-B	701	0.244	0.244	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1031	100.000
B - B2135		ONE HOUR	✓	110	100.000
C - A283 (East)		ONE HOUR	✓	1135	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1031
	B - B2135	0	0	110
	C - A283 (East)	988	147	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	7
	B - B2135	0	0	0
	C - A283 (East)	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.24	9.34	0.3	A	101	151
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.40	14.85	0.7	B	135	202
C-A					907	1360
A-B					0	0
A-C					946	1419

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	83	21	624	0.133	82	0.0	0.2	6.635	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	111	28	498	0.222	110	0.0	0.3	9.247	A
C-A	744	186			744				
A-B	0	0			0				
A-C	776	194			776				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	99	25	575	0.172	99	0.2	0.2	7.557	A
B-A	0	0	156	0.000	0	0.0	0.0	0.000	A
C-AB	132	33	458	0.288	132	0.3	0.4	11.004	B
C-A	888	222			888				
A-B	0	0			0				
A-C	927	232			927				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	121	30	507	0.239	121	0.2	0.3	9.319	A
B-A	0	0	57	0.000	0	0.0	0.0	0.000	A
C-AB	162	40	404	0.401	161	0.4	0.7	14.738	B
C-A	1088	272			1088				
A-B	0	0			0				
A-C	1135	284			1135				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	121	30	507	0.239	121	0.3	0.3	9.339	A
B-A	0	0	57	0.000	0	0.0	0.0	0.000	A
C-AB	162	40	404	0.401	162	0.7	0.7	14.854	B
C-A	1088	272			1088				
A-B	0	0			0				
A-C	1135	284			1135				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	99	25	575	0.172	99	0.3	0.2	7.579	A
B-A	0	0	156	0.000	0	0.0	0.0	0.000	A
C-AB	132	33	458	0.288	133	0.7	0.4	11.104	B
C-A	888	222			888				
A-B	0	0			0				
A-C	927	232			927				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	83	21	624	0.133	83	0.2	0.2	6.656	A
B-A	0	0	227	0.000	0	0.0	0.0	0.000	A
C-AB	111	28	498	0.222	111	0.4	0.3	9.325	A
C-A	744	186			744				
A-B	0	0			0				
A-C	776	194			776				

2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.91	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	28	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1082	100.000
B - B2135		ONE HOUR	✓	113	100.000
C - A283 (East)		ONE HOUR	✓	1428	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1082
	B - B2135	0	0	113
	C - A283 (East)	1225	203	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	2
	B - B2135	0	0	0
	C - A283 (East)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.25	9.42	0.3	A	104	156
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.55	19.62	1.2	C	188	281
C-A					1123	1684
A-B					0	0
A-C					993	1489

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	85	21	624	0.136	84	0.0	0.2	6.664	A
B-A	0	0	192	0.000	0	0.0	0.0	0.000	A
C-AB	153	38	498	0.307	151	0.0	0.4	10.337	B
C-A	922	231			922				
A-B	0	0			0				
A-C	815	204			815				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	102	25	575	0.177	101	0.2	0.2	7.602	A
B-A	0	0	113	0.000	0	0.0	0.0	0.000	A
C-AB	183	46	459	0.398	182	0.4	0.6	12.966	B
C-A	1101	275			1101				
A-B	0	0			0				
A-C	973	243			973				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	124	31	506	0.246	124	0.2	0.3	9.404	A
B-A	0	0	5	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	410	0.554	225	0.6	1.2	19.195	C
C-A	1345	336			1345				
A-B	0	0			0				
A-C	1191	298			1191				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	124	31	506	0.246	124	0.3	0.3	9.424	A
B-A	0	0	4	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	410	0.554	227	1.2	1.2	19.617	C
C-A	1345	336			1345				
A-B	0	0			0				
A-C	1191	298			1191				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	102	25	575	0.177	102	0.3	0.2	7.621	A
B-A	0	0	112	0.000	0	0.0	0.0	0.000	A
C-AB	183	46	459	0.398	185	1.2	0.7	13.253	B
C-A	1101	275			1101				
A-B	0	0			0				
A-C	973	243			973				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	85	21	624	0.136	85	0.2	0.2	6.683	A
B-A	0	0	191	0.000	0	0.0	0.0	0.000	A
C-AB	153	38	498	0.307	154	0.7	0.5	10.494	B
C-A	922	231			922				
A-B	0	0			0				
A-C	815	204			815				

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.38	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1052	100.000
B - B2135		ONE HOUR	✓	111	100.000
C - A283 (East)		ONE HOUR	✓	1175	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1052
	B - B2135	0	0	111
	C - A283 (East)	1023	152	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	7
	B - B2135	0	0	0
	C - A283 (East)	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.24	9.54	0.3	A	102	153
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.42	15.56	0.7	C	140	209
C-A					939	1408
A-B					0	0
A-C					965	1448

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	84	21	619	0.135	83	0.0	0.2	6.704	A
B-A	0	0	218	0.000	0	0.0	0.0	0.000	A
C-AB	114	29	494	0.232	113	0.0	0.3	9.429	A
C-A	770	193			770				
A-B	0	0			0				
A-C	792	198			792				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	100	25	569	0.175	100	0.2	0.2	7.664	A
B-A	0	0	145	0.000	0	0.0	0.0	0.000	A
C-AB	137	34	454	0.301	136	0.3	0.4	11.316	B
C-A	920	230			920				
A-B	0	0			0				
A-C	946	236			946				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	122	31	499	0.245	122	0.2	0.3	9.524	A
B-A	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	168	42	399	0.420	166	0.4	0.7	15.421	C
C-A	1126	282			1126				
A-B	0	0			0				
A-C	1158	290			1158				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	122	31	499	0.245	122	0.3	0.3	9.542	A
B-A	0	0	43	0.000	0	0.0	0.0	0.000	A
C-AB	168	42	399	0.420	168	0.7	0.7	15.563	C
C-A	1126	282			1126				
A-B	0	0			0				
A-C	1158	290			1158				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	100	25	569	0.175	100	0.3	0.2	7.685	A
B-A	0	0	144	0.000	0	0.0	0.0	0.000	A
C-AB	137	34	454	0.301	138	0.7	0.4	11.430	B
C-A	920	230			920				
A-B	0	0			0				
A-C	946	236			946				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	84	21	619	0.135	84	0.2	0.2	6.726	A
B-A	0	0	218	0.000	0	0.0	0.0	0.000	A
C-AB	114	29	494	0.232	115	0.4	0.3	9.515	A
C-A	770	193			770				
A-B	0	0			0				
A-C	792	198			792				

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.22	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	25	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1113	100.000
B - B2135		ONE HOUR	✓	117	100.000
C - A283 (East)		ONE HOUR	✓	1447	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1113
	B - B2135	0	0	117
	C - A283 (East)	1242	205	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	2
	B - B2135	0	0	0
	C - A283 (East)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.35	14.80	0.5	B	107	161
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.57	20.71	1.3	C	190	285
C-A					1138	1707
A-B					0	0
A-C					1021	1532

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	88	22	617	0.143	87	0.0	0.2	6.790	A
B-A	0	0	184	0.000	0	0.0	0.0	0.000	A
C-AB	154	39	492	0.314	153	0.0	0.4	10.551	B
C-A	935	234			935				
A-B	0	0			0				
A-C	838	209			838				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	105	26	566	0.186	105	0.2	0.2	7.801	A
B-A	0	0	103	0.000	0	0.0	0.0	0.000	A
C-AB	184	46	452	0.408	184	0.4	0.7	13.374	B
C-A	1116	279			1116				
A-B	0	0			0				
A-C	1001	250			1001				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	129	32	372	0.346	128	0.2	0.5	14.667	B
B-A	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	231	58	404	0.571	228	0.7	1.3	20.196	C
C-A	1362	341			1362				
A-B	0	0			0				
A-C	1225	306			1225				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	129	32	372	0.346	129	0.5	0.5	14.799	B
B-A	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	231	58	404	0.571	231	1.3	1.3	20.711	C
C-A	1362	341			1362				
A-B	0	0			0				
A-C	1225	306			1225				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	105	26	566	0.186	106	0.5	0.2	7.848	A
B-A	0	0	102	0.000	0	0.0	0.0	0.000	A
C-AB	184	46	452	0.408	187	1.3	0.7	13.712	B
C-A	1116	279			1116				
A-B	0	0			0				
A-C	1001	250			1001				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	88	22	617	0.143	88	0.2	0.2	6.812	A
B-A	0	0	183	0.000	0	0.0	0.0	0.000	A
C-AB	154	39	492	0.314	155	0.7	0.5	10.725	B
C-A	935	234			935				
A-B	0	0			0				
A-C	838	209			838				

Scenario 2 Total , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.36	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1049	100.000
B - B2135		ONE HOUR	✓	111	100.000
C - A283 (East)		ONE HOUR	✓	1162	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1049
	B - B2135	0	0	111
	C - A283 (East)	1012	150	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	7
	B - B2135	0	0	0
	C - A283 (East)	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.24	9.52	0.3	A	102	153
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.41	15.37	0.7	C	138	207
C-A					929	1393
A-B					0	0
A-C					963	1444

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	84	21	620	0.135	83	0.0	0.2	6.696	A
B-A	0	0	221	0.000	0	0.0	0.0	0.000	A
C-AB	113	28	494	0.228	112	0.0	0.3	9.380	A
C-A	762	190			762				
A-B	0	0			0				
A-C	790	197			790				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	100	25	570	0.175	100	0.2	0.2	7.651	A
B-A	0	0	148	0.000	0	0.0	0.0	0.000	A
C-AB	135	34	454	0.297	134	0.3	0.4	11.212	B
C-A	910	227			910				
A-B	0	0			0				
A-C	943	236			943				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	122	31	500	0.244	122	0.2	0.3	9.496	A
B-A	0	0	47	0.000	0	0.0	0.0	0.000	A
C-AB	165	41	399	0.414	164	0.4	0.7	15.231	C
C-A	1114	279			1114				
A-B	0	0			0				
A-C	1155	289			1155				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	122	31	500	0.244	122	0.3	0.3	9.517	A
B-A	0	0	47	0.000	0	0.0	0.0	0.000	A
C-AB	165	41	399	0.414	165	0.7	0.7	15.365	C
C-A	1114	279			1114				
A-B	0	0			0				
A-C	1155	289			1155				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	100	25	570	0.175	100	0.3	0.2	7.671	A
B-A	0	0	147	0.000	0	0.0	0.0	0.000	A
C-AB	135	34	454	0.297	136	0.7	0.4	11.341	B
C-A	910	227			910				
A-B	0	0			0				
A-C	943	236			943				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	84	21	620	0.135	84	0.2	0.2	6.715	A
B-A	0	0	220	0.000	0	0.0	0.0	0.000	A
C-AB	113	28	494	0.228	113	0.4	0.3	9.461	A
C-A	762	190			762				
A-B	0	0			0				
A-C	790	197			790				

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.19	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1104	100.000
B - B2135		ONE HOUR	✓	115	100.000
C - A283 (East)		ONE HOUR	✓	1445	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1104
	B - B2135	0	0	115
	C - A283 (East)	1240	205	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	2
	B - B2135	0	0	0
	C - A283 (East)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.34	14.54	0.5	B	106	158
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.57	20.45	1.3	C	190	285
C-A					1136	1704
A-B					0	0
A-C					1013	1520

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	87	22	619	0.140	86	0.0	0.2	6.744	A
B-A	0	0	185	0.000	0	0.0	0.0	0.000	A
C-AB	154	39	494	0.313	153	0.0	0.4	10.501	B
C-A	934	233			934				
A-B	0	0			0				
A-C	831	208			831				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	103	26	569	0.182	103	0.2	0.2	7.729	A
B-A	0	0	105	0.000	0	0.0	0.0	0.000	A
C-AB	184	46	454	0.406	184	0.4	0.7	13.276	B
C-A	1115	279			1115				
A-B	0	0			0				
A-C	992	248			992				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	127	32	374	0.338	125	0.2	0.5	14.410	B
B-A	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	230	58	406	0.567	228	0.7	1.3	19.954	C
C-A	1361	340			1361				
A-B	0	0			0				
A-C	1216	304			1216				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	127	32	374	0.338	127	0.5	0.5	14.535	B
B-A	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	230	58	406	0.567	230	1.3	1.3	20.449	C
C-A	1361	340			1361				
A-B	0	0			0				
A-C	1216	304			1216				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	103	26	569	0.182	105	0.5	0.2	7.774	A
B-A	0	0	104	0.000	0	0.0	0.0	0.000	A
C-AB	184	46	454	0.406	187	1.3	0.7	13.604	B
C-A	1115	279			1115				
A-B	0	0			0				
A-C	992	248			992				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	87	22	619	0.140	87	0.2	0.2	6.769	A
B-A	0	0	184	0.000	0	0.0	0.0	0.000	A
C-AB	154	39	494	0.313	155	0.7	0.5	10.669	B
C-A	934	233			934				
A-B	0	0			0				
A-C	831	208			831				

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	36	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1045	100.000
B - B2135		ONE HOUR	✓	111	100.000
C - A283 (East)		ONE HOUR	✓	1159	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1045
	B - B2135	0	0	111
	C - A283 (East)	1010	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	7
	B - B2135	0	0	0
	C - A283 (East)	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.24	9.48	0.3	A	102	153
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.41	15.23	0.7	C	137	205
C-A					927	1390
A-B					0	0
A-C					959	1438

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	84	21	621	0.135	83	0.0	0.2	6.684	A
B-A	0	0	222	0.000	0	0.0	0.0	0.000	A
C-AB	112	28	495	0.227	111	0.0	0.3	9.344	A
C-A	760	190			760				
A-B	0	0			0				
A-C	787	197			787				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	100	25	571	0.175	100	0.2	0.2	7.633	A
B-A	0	0	149	0.000	0	0.0	0.0	0.000	A
C-AB	134	33	455	0.294	133	0.3	0.4	11.169	B
C-A	908	227			908				
A-B	0	0			0				
A-C	939	235			939				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	122	31	502	0.244	122	0.2	0.3	9.462	A
B-A	0	0	49	0.000	0	0.0	0.0	0.000	A
C-AB	164	41	400	0.410	163	0.4	0.7	15.096	C
C-A	1112	278			1112				
A-B	0	0			0				
A-C	1151	288			1151				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	122	31	502	0.244	122	0.3	0.3	9.483	A
B-A	0	0	49	0.000	0	0.0	0.0	0.000	A
C-AB	164	41	401	0.410	164	0.7	0.7	15.227	C
C-A	1112	278			1112				
A-B	0	0			0				
A-C	1151	288			1151				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	100	25	571	0.175	100	0.3	0.2	7.656	A
B-A	0	0	149	0.000	0	0.0	0.0	0.000	A
C-AB	134	33	455	0.294	135	0.7	0.4	11.277	B
C-A	908	227			908				
A-B	0	0			0				
A-C	939	235			939				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	84	21	621	0.135	84	0.2	0.2	6.706	A
B-A	0	0	222	0.000	0	0.0	0.0	0.000	A
C-AB	112	28	495	0.227	113	0.4	0.3	9.424	A
C-A	760	190			760				
A-B	0	0			0				
A-C	787	197			787				

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.17	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1102	100.000
B - B2135		ONE HOUR	✓	115	100.000
C - A283 (East)		ONE HOUR	✓	1446	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1102
	B - B2135	0	0	115
	C - A283 (East)	1242	204	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	2
	B - B2135	0	0	0
	C - A283 (East)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.34	14.51	0.5	B	106	158
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.56	20.28	1.3	C	189	283
C-A					1138	1707
A-B					0	0
A-C					1011	1517

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	87	22	619	0.140	86	0.0	0.2	6.738	A
B-A	0	0	186	0.000	0	0.0	0.0	0.000	A
C-AB	154	38	494	0.311	152	0.0	0.4	10.472	B
C-A	935	234			935				
A-B	0	0			0				
A-C	830	207			830				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	103	26	569	0.182	103	0.2	0.2	7.720	A
B-A	0	0	106	0.000	0	0.0	0.0	0.000	A
C-AB	184	46	454	0.404	183	0.4	0.7	13.214	B
C-A	1116	279			1116				
A-B	0	0			0				
A-C	991	248			991				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	127	32	375	0.338	126	0.2	0.5	14.381	B
B-A	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	229	57	406	0.564	227	0.7	1.3	19.802	C
C-A	1363	341			1363				
A-B	0	0			0				
A-C	1213	303			1213				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	127	32	375	0.338	127	0.5	0.5	14.506	B
B-A	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	229	57	406	0.564	229	1.3	1.3	20.278	C
C-A	1363	341			1363				
A-B	0	0			0				
A-C	1213	303			1213				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	103	26	569	0.182	105	0.5	0.2	7.765	A
B-A	0	0	105	0.000	0	0.0	0.0	0.000	A
C-AB	184	46	454	0.404	186	1.3	0.7	13.529	B
C-A	1116	279			1116				
A-B	0	0			0				
A-C	991	248			991				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	87	22	619	0.140	87	0.2	0.2	6.760	A
B-A	0	0	185	0.000	0	0.0	0.0	0.000	A
C-AB	154	38	494	0.311	155	0.7	0.5	10.633	B
C-A	935	234			935				
A-B	0	0			0				
A-C	830	207			830				

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.34	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	36	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1047	100.000
B - B2135		ONE HOUR	✓	111	100.000
C - A283 (East)		ONE HOUR	✓	1149	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1047
	B - B2135	0	0	111
	C - A283 (East)	1002	147	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	7
	B - B2135	0	0	0
	C - A283 (East)	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.24	9.50	0.3	A	102	153
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.41	15.12	0.7	C	135	202
C-A					919	1379
A-B					0	0
A-C					961	1441

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	84	21	621	0.135	83	0.0	0.2	6.690	A
B-A	0	0	223	0.000	0	0.0	0.0	0.000	A
C-AB	111	28	495	0.224	110	0.0	0.3	9.318	A
C-A	754	189			754				
A-B	0	0			0				
A-C	788	197			788				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	100	25	570	0.175	100	0.2	0.2	7.642	A
B-A	0	0	151	0.000	0	0.0	0.0	0.000	A
C-AB	132	33	455	0.291	132	0.3	0.4	11.122	B
C-A	901	225			901				
A-B	0	0			0				
A-C	941	235			941				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	122	31	501	0.244	122	0.2	0.3	9.479	A
B-A	0	0	51	0.000	0	0.0	0.0	0.000	A
C-AB	162	40	400	0.405	161	0.4	0.7	14.998	B
C-A	1103	276			1103				
A-B	0	0			0				
A-C	1153	288			1153				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	122	31	501	0.244	122	0.3	0.3	9.500	A
B-A	0	0	50	0.000	0	0.0	0.0	0.000	A
C-AB	162	40	400	0.405	162	0.7	0.7	15.122	C
C-A	1103	276			1103				
A-B	0	0			0				
A-C	1153	288			1153				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	100	25	570	0.175	100	0.3	0.2	7.665	A
B-A	0	0	150	0.000	0	0.0	0.0	0.000	A
C-AB	132	33	455	0.291	133	0.7	0.4	11.225	B
C-A	901	225			901				
A-B	0	0			0				
A-C	941	235			941				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	84	21	621	0.135	84	0.2	0.2	6.709	A
B-A	0	0	223	0.000	0	0.0	0.0	0.000	A
C-AB	111	28	495	0.224	111	0.4	0.3	9.395	A
C-A	754	189			754				
A-B	0	0			0				
A-C	788	197			788				

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.16	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	27	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A283 (West)		ONE HOUR	✓	1091	100.000
B - B2135		ONE HOUR	✓	114	100.000
C - A283 (East)		ONE HOUR	✓	1438	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	1091
	B - B2135	0	0	114
	C - A283 (East)	1233	205	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A283 (West)	B - B2135	C - A283 (East)
From	A - A283 (West)	0	0	2
	B - B2135	0	0	0
	C - A283 (East)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.33	14.28	0.5	B	105	157
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.56	20.08	1.3	C	190	284
C-A					1130	1695
A-B					0	0
A-C					1001	1502

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	86	21	622	0.138	85	0.0	0.2	6.701	A
B-A	0	0	189	0.000	0	0.0	0.0	0.000	A
C-AB	154	39	496	0.311	153	0.0	0.4	10.430	B
C-A	928	232			928				
A-B	0	0			0				
A-C	821	205			821				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	102	26	572	0.179	102	0.2	0.2	7.656	A
B-A	0	0	109	0.000	0	0.0	0.0	0.000	A
C-AB	184	46	457	0.404	184	0.4	0.7	13.140	B
C-A	1108	277			1108				
A-B	0	0			0				
A-C	981	245			981				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	126	31	378	0.332	124	0.2	0.5	14.165	B
B-A	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	230	58	409	0.562	228	0.7	1.2	19.616	C
C-A	1353	338			1353				
A-B	0	0			0				
A-C	1201	300			1201				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	126	31	378	0.332	125	0.5	0.5	14.282	B
B-A	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	230	58	409	0.562	230	1.2	1.3	20.078	C
C-A	1353	338			1353				
A-B	0	0			0				
A-C	1201	300			1201				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	102	26	572	0.179	104	0.5	0.2	7.700	A
B-A	0	0	108	0.000	0	0.0	0.0	0.000	A
C-AB	184	46	457	0.404	187	1.3	0.7	13.450	B
C-A	1108	277			1108				
A-B	0	0			0				
A-C	981	245			981				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	86	21	622	0.138	86	0.2	0.2	6.721	A
B-A	0	0	188	0.000	0	0.0	0.0	0.000	A
C-AB	154	39	496	0.311	155	0.7	0.5	10.593	B
C-A	928	232			928				
A-B	0	0			0				
A-C	821	205			821				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: Junction 3 (Horsham Road (South)) Existing.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 3 (B2135)
Report generation date: 12/01/2022 16:07:01

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 16.2
A283/HORSHAM ROAD PICADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
Stream B-C	0.3	10.86	0.25	B	2.07	A	19 % [Stream C-AB]	1.6	23.34	0.62	C	3.22	A	4 % [Stream B-C]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	1.2	18.98	0.55	C				0.9	18.27	0.49	C			
Scenario 1 Total														
Stream B-C	0.3	11.25	0.25	B	2.12	A	16 % [Stream C-AB]	1.7	24.19	0.63	C	3.26	A	2 % [Stream B-C]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	1.2	20.11	0.56	C				1.0	18.76	0.50	C			
Scenario 2 Total														
Stream B-C	0.3	11.12	0.25	B	2.10	A	17 % [Stream C-AB]	1.7	24.09	0.63	C	3.27	A	3 % [Stream B-C]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	1.2	19.73	0.56	C				1.0	18.71	0.50	C			
Scenario 3 Total														
Stream B-C	0.3	11.09	0.25	B	2.10	A	17 % [Stream C-AB]	1.7	24.14	0.63	C	3.27	A	3 % [Stream B-C]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	1.2	19.64	0.55	C				1.0	18.73	0.50	C			
Scenario 4 Total														
Stream B-C	0.3	11.09	0.25	B	2.10	A	17 % [Stream C-AB]	1.6	23.78	0.63	C	3.25	A	3 % [Stream B-C]
Stream B-A	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Stream C-AB	1.2	19.64	0.55	C				1.0	18.53	0.49	C			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/01/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.07	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	Stream C-AB

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.50		✓	3.40	100.0	✓	12.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	10.00	6.90	4.60	3.90	✓	2.00	73	36

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	518	0.084	0.212	0.134	0.304
1	B-C	757	0.103	0.261	-	-
1	C-B	714	0.247	0.247	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1037	100.000
B		ONE HOUR	✓	99	100.000
C		ONE HOUR	✓	1141	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1037
	B	0	0	99
	C	935	206	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.25	10.86	0.3	B	91	136
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.55	18.98	1.2	C	189	284
C-A					858	1287
A-B					0	0
A-C					952	1427

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	541	0.138	74	0.0	0.2	7.704	A
B-A	0	0	193	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	510	0.304	153	0.0	0.4	10.040	B
C-A	704	176			704				
A-B	0	0			0				
A-C	781	195			781				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	499	0.179	89	0.2	0.2	8.779	A
B-A	0	0	130	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	471	0.394	184	0.4	0.6	12.539	B
C-A	841	210			841				
A-B	0	0			0				
A-C	932	233			932				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	441	0.247	109	0.2	0.3	10.829	B
B-A	0	0	42	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	417	0.545	225	0.6	1.2	18.605	C
C-A	1029	257			1029				
A-B	0	0			0				
A-C	1142	285			1142				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	441	0.247	109	0.3	0.3	10.857	B
B-A	0	0	42	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	417	0.545	227	1.2	1.2	18.976	C
C-A	1029	257			1029				
A-B	0	0			0				
A-C	1142	285			1142				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	499	0.179	89	0.3	0.2	8.806	A
B-A	0	0	129	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	471	0.393	187	1.2	0.7	12.791	B
C-A	841	210			841				
A-B	0	0			0				
A-C	932	233			932				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	541	0.138	75	0.2	0.2	7.733	A
B-A	0	0	193	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	510	0.304	156	0.7	0.4	10.188	B
C-A	704	176			704				
A-B	0	0			0				
A-C	781	195			781				

2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.22	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	4	Stream B-C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1197	100.000
B		ONE HOUR	✓	232	100.000
C		ONE HOUR	✓	1194	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1197
	B	0	0	232
	C	1022	172	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.62	23.34	1.6	C	213	319
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.49	18.27	0.9	C	158	237
C-A					938	1407
A-B					0	0
A-C					1098	1648

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	519	0.337	173	0.0	0.5	10.338	B
B-A	0	0	180	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	490	0.264	128	0.0	0.4	9.913	A
C-A	769	192			769				
A-B	0	0			0				
A-C	901	225			901				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	473	0.441	207	0.5	0.8	13.510	B
B-A	0	0	114	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	446	0.346	154	0.4	0.5	12.286	B
C-A	919	230			919				
A-B	0	0			0				
A-C	1076	269			1076				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	409	0.625	252	0.8	1.6	22.520	C
B-A	0	0	23	0.000	0	0.0	0.0	0.000	A
C-AB	189	47	386	0.491	188	0.5	0.9	17.995	C
C-A	1125	281			1125				
A-B	0	0			0				
A-C	1318	329			1318				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	409	0.625	255	1.6	1.6	23.340	C
B-A	0	0	23	0.000	0	0.0	0.0	0.000	A
C-AB	189	47	386	0.491	189	0.9	0.9	18.272	C
C-A	1125	281			1125				
A-B	0	0			0				
A-C	1318	329			1318				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	473	0.441	212	1.6	0.8	13.953	B
B-A	0	0	114	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	446	0.346	156	0.9	0.5	12.478	B
C-A	919	230			919				
A-B	0	0			0				
A-C	1076	269			1076				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	519	0.337	176	0.8	0.5	10.528	B
B-A	0	0	180	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	490	0.264	130	0.5	0.4	10.030	B
C-A	769	192			769				
A-B	0	0			0				
A-C	901	225			901				

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.12	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	16	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1077	100.000
B		ONE HOUR	✓	99	100.000
C		ONE HOUR	✓	1163	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1077
	B	0	0	99
	C	957	206	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.25	11.25	0.3	B	91	136
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.56	20.11	1.2	C	189	284
C-A					878	1317
A-B					0	0
A-C					988	1482

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	533	0.140	74	0.0	0.2	7.835	A
B-A	0	0	185	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	503	0.308	153	0.0	0.4	10.251	B
C-A	720	180			720				
A-B	0	0			0				
A-C	811	203			811				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	489	0.182	89	0.2	0.2	8.984	A
B-A	0	0	120	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	462	0.401	184	0.4	0.7	12.934	B
C-A	860	215			860				
A-B	0	0			0				
A-C	968	242			968				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	429	0.254	109	0.2	0.3	11.216	B
B-A	0	0	30	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	406	0.560	225	0.7	1.2	19.661	C
C-A	1053	263			1053				
A-B	0	0			0				
A-C	1186	296			1186				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	429	0.254	109	0.3	0.3	11.247	B
B-A	0	0	29	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	406	0.560	227	1.2	1.2	20.110	C
C-A	1053	263			1053				
A-B	0	0			0				
A-C	1186	296			1186				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	489	0.182	89	0.3	0.2	9.015	A
B-A	0	0	119	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	462	0.401	187	1.2	0.7	13.225	B
C-A	860	215			860				
A-B	0	0			0				
A-C	968	242			968				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	533	0.140	75	0.2	0.2	7.866	A
B-A	0	0	184	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	503	0.308	156	0.7	0.5	10.407	B
C-A	720	180			720				
A-B	0	0			0				
A-C	811	203			811				

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.26	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	Stream B-C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1216	100.000
B		ONE HOUR	✓	232	100.000
C		ONE HOUR	✓	1229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1216
	B	0	0	232
	C	1057	172	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.63	24.19	1.7	C	213	319
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.50	18.76	1.0	C	158	237
C-A					970	1455
A-B					0	0
A-C					1116	1674

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	515	0.339	173	0.0	0.5	10.449	B
B-A	0	0	174	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	486	0.266	128	0.0	0.4	10.009	B
C-A	796	199			796				
A-B	0	0			0				
A-C	915	229			915				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	468	0.445	207	0.5	0.8	13.737	B
B-A	0	0	106	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	442	0.350	154	0.4	0.5	12.464	B
C-A	950	238			950				
A-B	0	0			0				
A-C	1093	273			1093				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	404	0.633	252	0.8	1.6	23.273	C
B-A	0	0	14	0.000	0	0.0	0.0	0.000	A
C-AB	190	47	381	0.497	188	0.5	1.0	18.457	C
C-A	1164	291			1164				
A-B	0	0			0				
A-C	1339	335			1339				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	404	0.633	255	1.6	1.7	24.187	C
B-A	0	0	13	0.000	0	0.0	0.0	0.000	A
C-AB	190	47	381	0.497	189	1.0	1.0	18.760	C
C-A	1164	291			1164				
A-B	0	0			0				
A-C	1339	335			1339				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	468	0.445	212	1.7	0.8	14.216	B
B-A	0	0	106	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	442	0.350	156	1.0	0.5	12.671	B
C-A	950	238			950				
A-B	0	0			0				
A-C	1093	273			1093				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	515	0.339	176	0.8	0.5	10.646	B
B-A	0	0	173	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	486	0.266	130	0.5	0.4	10.128	B
C-A	796	199			796				
A-B	0	0			0				
A-C	915	229			915				

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.10	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1064	100.000
B		ONE HOUR	✓	99	100.000
C		ONE HOUR	✓	1160	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1064
	B	0	0	99
	C	954	206	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.25	11.12	0.3	B	91	136
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.56	19.73	1.2	C	189	284
C-A					875	1313
A-B					0	0
A-C					976	1465

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	535	0.139	74	0.0	0.2	7.791	A
B-A	0	0	187	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	505	0.307	153	0.0	0.4	10.182	B
C-A	718	180			718				
A-B	0	0			0				
A-C	801	200			801				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	492	0.181	89	0.2	0.2	8.918	A
B-A	0	0	122	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	465	0.399	184	0.4	0.6	12.803	B
C-A	858	214			858				
A-B	0	0			0				
A-C	957	239			957				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	433	0.252	109	0.2	0.3	11.087	B
B-A	0	0	33	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	409	0.555	225	0.6	1.2	19.306	C
C-A	1050	262			1050				
A-B	0	0			0				
A-C	1171	293			1171				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	433	0.252	109	0.3	0.3	11.117	B
B-A	0	0	33	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	409	0.555	227	1.2	1.2	19.728	C
C-A	1050	262			1050				
A-B	0	0			0				
A-C	1171	293			1171				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	492	0.181	89	0.3	0.2	8.948	A
B-A	0	0	121	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	465	0.399	187	1.2	0.7	13.083	B
C-A	858	214			858				
A-B	0	0			0				
A-C	957	239			957				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	535	0.139	75	0.2	0.2	7.821	A
B-A	0	0	186	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	505	0.307	156	0.7	0.4	10.336	B
C-A	718	180			718				
A-B	0	0			0				
A-C	801	200			801				

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.27	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	Stream B-C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1214	100.000
B		ONE HOUR	✓	232	100.000
C		ONE HOUR	✓	1218	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1214
	B	0	0	232
	C	1046	172	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.63	24.09	1.7	C	213	319
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.50	18.71	1.0	C	158	237
C-A					960	1440
A-B					0	0
A-C					1114	1671

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	516	0.339	173	0.0	0.5	10.437	B
B-A	0	0	175	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	487	0.266	128	0.0	0.4	9.991	A
C-A	787	197			787				
A-B	0	0			0				
A-C	914	228			914				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	469	0.445	207	0.5	0.8	13.712	B
B-A	0	0	108	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	443	0.349	154	0.4	0.5	12.445	B
C-A	940	235			940				
A-B	0	0			0				
A-C	1091	273			1091				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	404	0.632	252	0.8	1.6	23.194	C
B-A	0	0	16	0.000	0	0.0	0.0	0.000	A
C-AB	190	47	382	0.497	188	0.5	0.9	18.407	C
C-A	1152	288			1152				
A-B	0	0			0				
A-C	1337	334			1337				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	404	0.632	255	1.6	1.7	24.090	C
B-A	0	0	15	0.000	0	0.0	0.0	0.000	A
C-AB	190	47	382	0.497	189	0.9	1.0	18.707	C
C-A	1152	288			1152				
A-B	0	0			0				
A-C	1337	334			1337				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	469	0.445	212	1.7	0.8	14.188	B
B-A	0	0	107	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	443	0.349	156	1.0	0.5	12.651	B
C-A	940	235			940				
A-B	0	0			0				
A-C	1091	273			1091				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	516	0.339	176	0.8	0.5	10.631	B
B-A	0	0	174	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	487	0.266	130	0.5	0.4	10.120	B
C-A	787	197			787				
A-B	0	0			0				
A-C	914	228			914				

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.10	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1061	100.000
B		ONE HOUR	✓	99	100.000
C		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1061
	B	0	0	99
	C	950	206	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.25	11.09	0.3	B	91	136
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.55	19.64	1.2	C	189	284
C-A					872	1307
A-B					0	0
A-C					974	1460

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	536	0.139	74	0.0	0.2	7.781	A
B-A	0	0	188	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	506	0.307	153	0.0	0.4	10.166	B
C-A	715	179			715				
A-B	0	0			0				
A-C	799	200			799				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	493	0.181	89	0.2	0.2	8.903	A
B-A	0	0	123	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	465	0.398	184	0.4	0.6	12.773	B
C-A	854	214			854				
A-B	0	0			0				
A-C	954	238			954				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	434	0.251	109	0.2	0.3	11.057	B
B-A	0	0	35	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	410	0.554	225	0.6	1.2	19.223	C
C-A	1045	261			1045				
A-B	0	0			0				
A-C	1168	292			1168				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	434	0.251	109	0.3	0.3	11.088	B
B-A	0	0	34	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	410	0.554	227	1.2	1.2	19.642	C
C-A	1045	261			1045				
A-B	0	0			0				
A-C	1168	292			1168				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	493	0.181	89	0.3	0.2	8.930	A
B-A	0	0	122	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	465	0.398	187	1.2	0.7	13.048	B
C-A	854	214			854				
A-B	0	0			0				
A-C	954	238			954				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	536	0.139	75	0.2	0.2	7.811	A
B-A	0	0	187	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	506	0.307	156	0.7	0.4	10.319	B
C-A	715	179			715				
A-B	0	0			0				
A-C	799	200			799				

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.27	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	Stream B-C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1215	100.000
B		ONE HOUR	✓	232	100.000
C		ONE HOUR	✓	1216	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1215
	B	0	0	232
	C	1044	172	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.63	24.14	1.7	C	213	319
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.50	18.73	1.0	C	158	237
C-A					958	1437
A-B					0	0
A-C					1115	1672

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	515	0.339	173	0.0	0.5	10.443	B
B-A	0	0	175	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	487	0.266	128	0.0	0.4	9.996	A
C-A	786	196			786				
A-B	0	0			0				
A-C	915	229			915				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	469	0.445	207	0.5	0.8	13.724	B
B-A	0	0	108	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	442	0.350	154	0.4	0.5	12.454	B
C-A	939	235			939				
A-B	0	0			0				
A-C	1092	273			1092				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	404	0.633	252	0.8	1.6	23.233	C
B-A	0	0	16	0.000	0	0.0	0.0	0.000	A
C-AB	190	47	381	0.497	188	0.5	1.0	18.433	C
C-A	1149	287			1149				
A-B	0	0			0				
A-C	1338	334			1338				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	404	0.633	255	1.6	1.7	24.140	C
B-A	0	0	16	0.000	0	0.0	0.0	0.000	A
C-AB	190	47	381	0.497	189	1.0	1.0	18.734	C
C-A	1149	287			1149				
A-B	0	0			0				
A-C	1338	334			1338				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	469	0.445	212	1.7	0.8	14.199	B
B-A	0	0	107	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	442	0.350	156	1.0	0.5	12.661	B
C-A	939	235			939				
A-B	0	0			0				
A-C	1092	273			1092				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	515	0.339	176	0.8	0.5	10.640	B
B-A	0	0	174	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	487	0.266	130	0.5	0.4	10.123	B
C-A	786	196			786				
A-B	0	0			0				
A-C	915	229			915				

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.10	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1061	100.000
B		ONE HOUR	✓	99	100.000
C		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1061
	B	0	0	99
	C	950	206	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.25	11.09	0.3	B	91	136
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.55	19.64	1.2	C	189	284
C-A					872	1307
A-B					0	0
A-C					974	1460

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	536	0.139	74	0.0	0.2	7.781	A
B-A	0	0	188	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	506	0.307	153	0.0	0.4	10.166	B
C-A	715	179			715				
A-B	0	0			0				
A-C	799	200			799				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	493	0.181	89	0.2	0.2	8.903	A
B-A	0	0	123	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	465	0.398	184	0.4	0.6	12.773	B
C-A	854	214			854				
A-B	0	0			0				
A-C	954	238			954				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	434	0.251	109	0.2	0.3	11.057	B
B-A	0	0	35	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	410	0.554	225	0.6	1.2	19.223	C
C-A	1045	261			1045				
A-B	0	0			0				
A-C	1168	292			1168				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	109	27	434	0.251	109	0.3	0.3	11.088	B
B-A	0	0	34	0.000	0	0.0	0.0	0.000	A
C-AB	227	57	410	0.554	227	1.2	1.2	19.642	C
C-A	1045	261			1045				
A-B	0	0			0				
A-C	1168	292			1168				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	89	22	493	0.181	89	0.3	0.2	8.930	A
B-A	0	0	122	0.000	0	0.0	0.0	0.000	A
C-AB	185	46	465	0.398	187	1.2	0.7	13.048	B
C-A	854	214			854				
A-B	0	0			0				
A-C	954	238			954				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	75	19	536	0.139	75	0.2	0.2	7.811	A
B-A	0	0	187	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	506	0.307	156	0.7	0.4	10.319	B
C-A	715	179			715				
A-B	0	0			0				
A-C	799	200			799				

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.25	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	Stream B-C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1207	100.000
B		ONE HOUR	✓	232	100.000
C		ONE HOUR	✓	1204	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	1207
	B	0	0	232
	C	1032	172	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.63	23.78	1.6	C	213	319
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.49	18.53	1.0	C	158	237
C-A					947	1420
A-B					0	0
A-C					1108	1661

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	517	0.338	173	0.0	0.5	10.395	B
B-A	0	0	178	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	488	0.265	128	0.0	0.4	9.964	A
C-A	777	194			777				
A-B	0	0			0				
A-C	909	227			909				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	470	0.443	207	0.5	0.8	13.629	B
B-A	0	0	111	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	444	0.348	154	0.4	0.5	12.378	B
C-A	928	232			928				
A-B	0	0			0				
A-C	1085	271			1085				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	406	0.629	252	0.8	1.6	22.910	C
B-A	0	0	20	0.000	0	0.0	0.0	0.000	A
C-AB	189	47	384	0.494	188	0.5	0.9	18.238	C
C-A	1136	284			1136				
A-B	0	0			0				
A-C	1329	332			1329				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	255	64	406	0.629	255	1.6	1.6	23.778	C
B-A	0	0	19	0.000	0	0.0	0.0	0.000	A
C-AB	189	47	384	0.494	189	0.9	1.0	18.528	C
C-A	1136	284			1136				
A-B	0	0			0				
A-C	1329	332			1329				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	470	0.443	212	1.6	0.8	14.090	B
B-A	0	0	110	0.000	0	0.0	0.0	0.000	A
C-AB	155	39	444	0.348	156	1.0	0.5	12.578	B
C-A	928	232			928				
A-B	0	0			0				
A-C	1085	271			1085				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	175	44	517	0.338	176	0.8	0.5	10.588	B
B-A	0	0	177	0.000	0	0.0	0.0	0.000	A
C-AB	129	32	488	0.265	130	0.5	0.4	10.082	B
C-A	777	194			777				
A-B	0	0			0				
A-C	909	227			909				

APPENDIX 17.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 3 – A283 / MAUDLIN LANE / CLAYS HILL / CASTLE LANE / THE STREET ROUNDABOUT

17.1 ARCADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)

17.2 Proposed Junction Improvements

17.3 PICADY Output: Proposed Development Scenarios (With Proposed Junction Improvements)

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 4 (Clays Hill) Existing.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 4 (Clays Hill)
Report generation date: 12/01/2022 14:44:44

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 17.1
ARCADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
1 - A283 South	51.9	132.02	1.06	F	71.07	F	-12 % [1 - A283 South]	166.2	458.87	1.24	F	220.78	F	-23 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.63	0.04	A				0.0	8.16	0.04	A			
3 - Clays Hill	8.0	47.11	0.91	E				1.2	11.02	0.54	B			
4 - A283 North	6.1	25.00	0.87	D				6.6	22.62	0.88	C			
5 - Castle Lane	0.5	15.73	0.34	C				0.2	10.19	0.15	B			
6 - The Street	0.5	8.14	0.33	A				0.5	7.30	0.34	A			
Scenario 1 Total														
1 - A283 South	74.2	179.12	1.10	F	93.50	F	-15 % [1 - A283 South]	186.3	515.45	1.26	F	248.47	F	-24 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.68	0.04	A				0.0	8.16	0.04	A			
3 - Clays Hill	9.2	53.39	0.93	F				1.2	11.21	0.55	B			
4 - A283 North	7.4	29.56	0.90	D				8.7	29.25	0.91	D			
5 - Castle Lane	0.5	16.76	0.35	C				0.2	10.84	0.16	B			
6 - The Street	0.5	8.47	0.34	A				0.5	7.69	0.35	A			
Scenario 2 Total														
1 - A283 South	67.3	164.48	1.09	F	86.72	F	-14 % [1 - A283 South]	182.8	506.96	1.26	F	244.28	F	-24 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.67	0.04	A				0.0	8.16	0.04	A			
3 - Clays Hill	8.9	51.79	0.93	F				1.2	11.19	0.55	B			
4 - A283 North	7.2	28.88	0.89	D				8.0	26.93	0.90	D			
5 - Castle Lane	0.5	16.63	0.35	C				0.2	10.64	0.15	B			
6 - The Street	0.5	8.42	0.34	A				0.5	7.57	0.35	A			
Scenario 3 Total														
1 - A283 South	65.4	160.40	1.09	F	84.39	F	-14 % [1 - A283 South]	183.7	509.08	1.26	F	245.35	F	-24 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.67	0.04	A				0.0	8.16	0.04	A			
3 - Clays Hill	8.5	50.02	0.92	F				1.2	11.19	0.55	B			
4 - A283 North	6.9	27.81	0.89	D				7.8	26.55	0.90	D			
5 - Castle Lane	0.5	16.36	0.35	C				0.2	10.61	0.15	B			
6 - The Street	0.5	8.35	0.34	A				0.5	7.55	0.35	A			
Scenario 4 Total														
1 - A283 South	60.1	149.34	1.08	F	79.84	F	-13 % [1 - A283 South]	174.8	485.89	1.25	F	233.97	F	-23 % [1 - A283 South]
2 - Maudlin Lane	0.0	8.66	0.04	A				0.0	8.16	0.04	A			
3 - Clays Hill	8.6	50.38	0.92	F				1.2	11.13	0.55	B			
4 - A283 North	7.1	28.42	0.89	D				7.1	24.33	0.89	C			
5 - Castle Lane	0.5	16.51	0.35	C				0.2	10.39	0.15	B			
6 - The Street	0.5	8.39	0.34	A				0.5	7.42	0.34	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	71.07	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	1 - A283 South

Arms

Arms

Arm	Name	Description
1	A283 South	
2	Maudlin Lane	
3	Clays Hill	
4	A283 North	
5	Castle Lane	
6	The Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 South	3.70	6.70	8.0	9.3	49.0	31.0	
2 - Maudlin Lane	3.10	5.00	6.8	35.5	49.0	19.0	
3 - Clays Hill	3.80	6.50	3.5	10.3	49.0	27.0	
4 - A283 North	4.40	7.20	2.6	17.8	49.0	25.0	
5 - Castle Lane	2.20	5.60	12.7	9.8	49.0	33.0	
6 - The Street	3.90	6.50	7.0	14.1	49.0	27.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 South	0.547	1443
2 - Maudlin Lane	0.557	1317
3 - Clays Hill	0.533	1338
4 - A283 North	0.586	1541
5 - Castle Lane	0.490	1147
6 - The Street	0.577	1526

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1181	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	593	100.000
4 - A283 North		ONE HOUR	✓	851	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	293	865	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	412	0	0	53	3	125
	4 - A283 North	755	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.06	132.02	51.9	F	1084	1626
2 - Maudlin Lane	0.04	8.63	0.0	A	15	22
3 - Clays Hill	0.91	47.11	8.0	E	544	816
4 - A283 North	0.87	25.00	6.1	D	781	1171
5 - Castle Lane	0.34	15.73	0.5	C	98	147
6 - The Street	0.33	8.14	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	889	222	174	1266	0.703	880	931	0.0	2.3	9.133	A
2 - Maudlin Lane	12	3	1042	663	0.018	12	11	0.0	0.0	5.532	A
3 - Clays Hill	446	112	769	885	0.505	442	286	0.0	1.0	8.066	A
4 - A283 North	641	160	438	1184	0.541	636	773	0.0	1.2	6.511	A
5 - Castle Lane	81	20	1052	597	0.135	80	22	0.0	0.2	6.948	A
6 - The Street	149	37	956	929	0.161	148	176	0.0	0.2	4.609	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1062	265	208	1248	0.851	1051	1114	2.3	5.1	17.329	C
2 - Maudlin Lane	14	4	1245	551	0.026	14	13	0.0	0.0	6.713	A
3 - Clays Hill	533	133	918	801	0.666	529	341	1.0	1.9	13.080	B
4 - A283 North	765	191	524	1137	0.673	762	923	1.2	2.0	9.502	A
5 - Castle Lane	96	24	1260	491	0.196	96	26	0.2	0.2	9.096	A
6 - The Street	178	44	1145	815	0.218	178	211	0.2	0.3	5.644	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1300	325	254	1224	1.063	1197	1346	5.1	30.9	66.107	F
2 - Maudlin Lane	18	4	1435	446	0.040	18	16	0.0	0.0	8.406	A
3 - Clays Hill	653	163	1057	723	0.903	634	395	1.9	6.6	34.867	D
4 - A283 North	937	234	627	1080	0.867	923	1064	2.0	5.6	21.141	C
5 - Castle Lane	118	29	1520	358	0.329	117	31	0.2	0.5	14.840	B
6 - The Street	218	55	1383	672	0.324	217	254	0.3	0.5	7.899	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1300	325	255	1223	1.063	1216	1366	30.9	51.9	132.019	F
2 - Maudlin Lane	18	4	1455	435	0.041	18	16	0.0	0.0	8.633	A
3 - Clays Hill	653	163	1072	715	0.913	647	401	6.6	8.0	47.106	E
4 - A283 North	937	234	640	1074	0.873	935	1080	5.6	6.1	25.003	D
5 - Castle Lane	118	29	1543	346	0.340	118	31	0.5	0.5	15.728	C
6 - The Street	218	55	1403	660	0.330	218	258	0.5	0.5	8.144	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1062	265	210	1247	0.852	1223	1149	51.9	11.6	99.127	F
2 - Maudlin Lane	14	4	1419	454	0.032	14	14	0.0	0.0	8.198	A
3 - Clays Hill	533	133	1048	727	0.733	553	385	8.0	2.9	22.628	C
4 - A283 North	765	191	549	1124	0.681	781	1053	6.1	2.2	10.949	B
5 - Castle Lane	96	24	1302	470	0.205	97	28	0.5	0.3	9.676	A
6 - The Street	178	44	1180	794	0.224	179	219	0.5	0.3	5.855	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	889	222	175	1265	0.703	926	947	11.6	2.5	11.686	B
2 - Maudlin Lane	12	3	1089	637	0.019	12	11	0.0	0.0	5.766	A
3 - Clays Hill	446	112	804	865	0.516	454	298	2.9	1.1	8.907	A
4 - A283 North	641	160	449	1178	0.544	645	808	2.2	1.2	6.799	A
5 - Castle Lane	81	20	1072	588	0.137	81	22	0.3	0.2	7.113	A
6 - The Street	149	37	973	919	0.162	149	180	0.3	0.2	4.683	A

2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	220.78	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1424	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	351	100.000
4 - A283 North		ONE HOUR	✓	1003	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	300	1048	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	231	2	0	26	3	89
	4 - A283 North	872	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.24	458.87	166.2	F	1307	1960
2 - Maudlin Lane	0.04	8.16	0.0	A	15	22
3 - Clays Hill	0.54	11.02	1.2	B	322	483
4 - A283 North	0.88	22.62	6.6	C	920	1381
5 - Castle Lane	0.15	10.19	0.2	B	51	77
6 - The Street	0.34	7.30	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1072	268	200	1320	0.812	1056	861	0.0	4.0	12.937	B
2 - Maudlin Lane	12	3	1229	625	0.019	12	27	0.0	0.0	5.868	A
3 - Clays Hill	264	66	934	829	0.319	262	307	0.0	0.5	6.338	A
4 - A283 North	755	189	308	1334	0.566	750	889	0.0	1.3	6.118	A
5 - Castle Lane	42	11	1001	648	0.065	42	57	0.0	0.1	5.932	A
6 - The Street	172	43	890	985	0.175	172	153	0.0	0.2	4.420	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1280	320	240	1298	0.986	1233	1032	4.0	15.8	39.302	E
2 - Maudlin Lane	14	4	1441	506	0.028	14	32	0.0	0.0	7.316	A
3 - Clays Hill	316	79	1094	743	0.425	314	361	0.5	0.7	8.376	A
4 - A283 North	902	225	367	1299	0.694	898	1041	1.3	2.2	8.889	A
5 - Castle Lane	50	13	1199	550	0.092	50	66	0.1	0.1	7.200	A
6 - The Street	206	51	1066	884	0.233	206	183	0.2	0.3	5.302	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1568	392	293	1269	1.235	1266	1253	15.8	91.3	161.408	F
2 - Maudlin Lane	18	4	1521	461	0.038	18	37	0.0	0.0	8.126	A
3 - Clays Hill	386	97	1149	714	0.541	385	390	0.7	1.2	10.874	B
4 - A283 North	1104	276	438	1258	0.878	1089	1095	2.2	6.1	19.660	C
5 - Castle Lane	62	15	1455	422	0.146	61	72	0.1	0.2	9.965	A
6 - The Street	252	63	1295	753	0.335	251	222	0.3	0.5	7.166	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1568	392	294	1268	1.236	1268	1266	91.3	166.2	369.302	F
2 - Maudlin Lane	18	4	1525	459	0.038	18	37	0.0	0.0	8.160	A
3 - Clays Hill	386	97	1151	713	0.542	386	391	1.2	1.2	11.024	B
4 - A283 North	1104	276	440	1257	0.878	1102	1097	6.1	6.6	22.618	C
5 - Castle Lane	62	15	1470	415	0.149	62	72	0.2	0.2	10.191	B
6 - The Street	252	63	1308	745	0.338	252	224	0.5	0.5	7.304	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1280	320	241	1297	0.987	1290	1051	166.2	163.9	458.871	F
2 - Maudlin Lane	14	4	1498	474	0.030	14	33	0.0	0.0	7.835	A
3 - Clays Hill	316	79	1139	719	0.439	317	374	1.2	0.8	8.985	A
4 - A283 North	902	225	372	1296	0.696	919	1084	6.6	2.4	9.925	A
5 - Castle Lane	50	13	1222	539	0.093	51	69	0.2	0.1	7.384	A
6 - The Street	206	51	1086	872	0.236	207	186	0.5	0.3	5.414	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1072	268	202	1319	0.813	1311	872	163.9	104.0	368.814	F
2 - Maudlin Lane	12	3	1484	482	0.025	12	29	0.0	0.0	7.656	A
3 - Clays Hill	264	66	1134	722	0.366	265	362	0.8	0.6	7.901	A
4 - A283 North	755	189	322	1326	0.570	759	1078	2.4	1.3	6.401	A
5 - Castle Lane	42	11	1014	642	0.066	42	67	0.1	0.1	6.005	A
6 - The Street	172	43	900	979	0.176	173	156	0.3	0.2	4.468	A

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	93.50	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1228	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	600	100.000
4 - A283 North		ONE HOUR	✓	873	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	300	905	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	419	0	0	53	3	125
	4 - A283 North	777	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.10	179.12	74.2	F	1127	1690
2 - Maudlin Lane	0.04	8.68	0.0	A	15	22
3 - Clays Hill	0.93	53.39	9.2	F	551	826
4 - A283 North	0.90	29.56	7.4	D	801	1202
5 - Castle Lane	0.35	16.76	0.5	C	98	147
6 - The Street	0.34	8.47	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	925	231	174	1269	0.729	914	952	0.0	2.6	9.893	A
2 - Maudlin Lane	12	3	1077	645	0.019	12	11	0.0	0.0	5.688	A
3 - Clays Hill	452	113	798	870	0.519	447	291	0.0	1.1	8.444	A
4 - A283 North	657	164	443	1184	0.555	652	802	0.0	1.2	6.711	A
5 - Castle Lane	81	20	1074	587	0.137	80	22	0.0	0.2	7.090	A
6 - The Street	149	37	978	917	0.163	148	176	0.0	0.2	4.681	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1104	276	208	1251	0.883	1089	1140	2.6	6.3	20.562	C
2 - Maudlin Lane	14	4	1284	530	0.027	14	13	0.0	0.0	6.974	A
3 - Clays Hill	539	135	951	784	0.688	535	347	1.1	2.1	14.235	B
4 - A283 North	785	196	530	1136	0.691	781	957	1.2	2.2	10.030	B
5 - Castle Lane	96	24	1285	479	0.201	96	26	0.2	0.2	9.384	A
6 - The Street	178	44	1170	801	0.222	178	211	0.2	0.3	5.774	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1352	338	254	1227	1.102	1210	1373	6.3	41.9	83.413	F
2 - Maudlin Lane	18	4	1448	440	0.040	18	16	0.0	0.0	8.516	A
3 - Clays Hill	661	165	1071	717	0.921	639	394	2.1	7.4	38.627	E
4 - A283 North	961	240	632	1080	0.890	944	1079	2.2	6.5	23.864	C
5 - Castle Lane	118	29	1546	346	0.341	117	30	0.2	0.5	15.638	C
6 - The Street	218	55	1410	657	0.332	217	253	0.3	0.5	8.169	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1352	338	255	1226	1.103	1223	1396	41.9	74.2	179.118	F
2 - Maudlin Lane	18	4	1462	432	0.041	18	16	0.0	0.0	8.678	A
3 - Clays Hill	661	165	1082	711	0.929	654	398	7.4	9.2	53.386	F
4 - A283 North	961	240	646	1073	0.896	958	1090	6.5	7.4	29.562	D
5 - Castle Lane	118	29	1573	332	0.355	118	31	0.5	0.5	16.762	C
6 - The Street	218	55	1433	643	0.339	218	257	0.5	0.5	8.467	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1104	276	210	1249	0.884	1233	1181	74.2	42.0	171.658	F
2 - Maudlin Lane	14	4	1429	450	0.032	14	14	0.0	0.0	8.273	A
3 - Clays Hill	539	135	1061	722	0.747	563	383	9.2	3.2	25.300	D
4 - A283 North	785	196	558	1121	0.700	805	1066	7.4	2.4	12.051	B
5 - Castle Lane	96	24	1335	454	0.212	97	28	0.5	0.3	10.125	B
6 - The Street	178	44	1213	776	0.230	179	220	0.5	0.3	6.042	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	925	231	175	1268	0.729	1081	969	42.0	2.9	35.857	E
2 - Maudlin Lane	12	3	1244	552	0.022	12	12	0.0	0.0	6.673	A
3 - Clays Hill	452	113	924	798	0.566	459	332	3.2	1.3	10.833	B
4 - A283 North	657	164	457	1176	0.559	662	927	2.4	1.3	7.054	A
5 - Castle Lane	81	20	1095	576	0.140	81	24	0.3	0.2	7.275	A
6 - The Street	149	37	995	906	0.165	149	181	0.3	0.2	4.760	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	248.47	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1451	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	357	100.000
4 - A283 North		ONE HOUR	✓	1038	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	308	1067	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	237	2	0	26	3	89
	4 - A283 North	907	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.26	515.45	186.3	F	1331	1997
2 - Maudlin Lane	0.04	8.16	0.0	A	15	22
3 - Clays Hill	0.55	11.21	1.2	B	328	491
4 - A283 North	0.91	29.25	8.7	D	952	1429
5 - Castle Lane	0.16	10.84	0.2	B	51	77
6 - The Street	0.35	7.69	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1092	273	200	1321	0.827	1075	892	0.0	4.4	13.809	B
2 - Maudlin Lane	12	3	1248	615	0.020	12	27	0.0	0.0	5.970	A
3 - Clays Hill	269	67	947	822	0.327	267	313	0.0	0.5	6.465	A
4 - A283 North	781	195	312	1332	0.587	776	902	0.0	1.4	6.407	A
5 - Castle Lane	42	11	1031	634	0.067	42	56	0.0	0.1	6.081	A
6 - The Street	172	43	920	968	0.178	172	153	0.0	0.2	4.515	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1304	326	239	1299	1.004	1246	1068	4.4	19.0	44.800	E
2 - Maudlin Lane	14	4	1454	499	0.029	14	32	0.0	0.0	7.425	A
3 - Clays Hill	321	80	1102	739	0.434	320	366	0.5	0.8	8.566	A
4 - A283 North	933	233	372	1297	0.719	929	1050	1.4	2.5	9.655	A
5 - Castle Lane	50	13	1235	532	0.095	50	66	0.1	0.1	7.464	A
6 - The Street	206	51	1102	864	0.238	205	183	0.2	0.3	5.467	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1598	399	292	1269	1.258	1267	1293	19.0	101.6	180.029	F
2 - Maudlin Lane	18	4	1523	460	0.038	18	37	0.0	0.0	8.136	A
3 - Clays Hill	393	98	1148	715	0.550	391	392	0.8	1.2	11.070	B
4 - A283 North	1143	286	444	1256	0.910	1122	1095	2.5	7.8	23.778	C
5 - Castle Lane	62	15	1495	403	0.153	61	71	0.1	0.2	10.523	B
6 - The Street	252	63	1334	730	0.345	251	222	0.3	0.5	7.500	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1598	399	294	1269	1.259	1268	1310	101.6	183.9	408.236	F
2 - Maudlin Lane	18	4	1525	459	0.038	18	37	0.0	0.0	8.163	A
3 - Clays Hill	393	98	1149	714	0.551	393	394	1.2	1.2	11.210	B
4 - A283 North	1143	286	446	1255	0.911	1139	1097	7.8	8.7	29.254	D
5 - Castle Lane	62	15	1514	394	0.157	62	71	0.2	0.2	10.841	B
6 - The Street	252	63	1352	720	0.350	252	224	0.5	0.5	7.686	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1304	326	242	1297	1.005	1295	1095	183.9	186.3	515.452	F
2 - Maudlin Lane	14	4	1504	471	0.031	14	33	0.0	0.0	7.891	A
3 - Clays Hill	321	80	1141	718	0.447	322	378	1.2	0.8	9.134	A
4 - A283 North	933	233	377	1295	0.721	957	1087	8.7	2.7	11.375	B
5 - Castle Lane	50	13	1266	517	0.097	51	68	0.2	0.1	7.725	A
6 - The Street	206	51	1130	848	0.243	207	187	0.5	0.3	5.626	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1092	273	202	1320	0.828	1313	903	186.3	131.2	436.187	F
2 - Maudlin Lane	12	3	1485	482	0.025	12	29	0.0	0.0	7.667	A
3 - Clays Hill	269	67	1133	722	0.372	270	364	0.8	0.6	7.970	A
4 - A283 North	781	195	325	1324	0.590	786	1078	2.7	1.5	6.751	A
5 - Castle Lane	42	11	1046	626	0.067	42	66	0.1	0.1	6.164	A
6 - The Street	172	43	932	961	0.179	173	156	0.3	0.2	4.568	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	86.72	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1214	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	599	100.000
4 - A283 North		ONE HOUR	✓	870	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	299	892	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	418	0	0	53	3	125
	4 - A283 North	774	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.09	164.48	67.3	F	1114	1671
2 - Maudlin Lane	0.04	8.67	0.0	A	15	22
3 - Clays Hill	0.93	51.79	8.9	F	550	824
4 - A283 North	0.89	28.88	7.2	D	798	1197
5 - Castle Lane	0.35	16.63	0.5	C	98	147
6 - The Street	0.34	8.42	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	914	228	174	1268	0.721	904	949	0.0	2.5	9.653	A
2 - Maudlin Lane	12	3	1066	650	0.019	12	11	0.0	0.0	5.641	A
3 - Clays Hill	451	113	788	875	0.516	447	290	0.0	1.0	8.334	A
4 - A283 North	655	164	442	1184	0.553	650	793	0.0	1.2	6.684	A
5 - Castle Lane	81	20	1071	588	0.137	80	22	0.0	0.2	7.070	A
6 - The Street	149	37	975	918	0.162	148	176	0.0	0.2	4.670	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1091	273	208	1250	0.873	1078	1136	2.5	5.9	19.500	C
2 - Maudlin Lane	14	4	1272	536	0.027	14	13	0.0	0.0	6.895	A
3 - Clays Hill	538	135	941	790	0.682	534	346	1.0	2.0	13.898	B
4 - A283 North	782	196	529	1136	0.688	778	946	1.2	2.1	9.957	A
5 - Castle Lane	96	24	1282	481	0.200	96	26	0.2	0.2	9.344	A
6 - The Street	178	44	1167	803	0.222	178	211	0.2	0.3	5.756	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1337	334	254	1226	1.091	1207	1369	5.9	38.4	77.988	F
2 - Maudlin Lane	18	4	1444	442	0.040	18	16	0.0	0.0	8.488	A
3 - Clays Hill	660	165	1066	719	0.917	639	396	2.0	7.2	37.654	E
4 - A283 North	958	239	632	1080	0.887	941	1073	2.1	6.4	23.482	C
5 - Castle Lane	118	29	1542	348	0.339	117	30	0.2	0.5	15.533	C
6 - The Street	218	55	1406	659	0.331	217	253	0.3	0.5	8.132	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1337	334	255	1225	1.091	1221	1392	38.4	67.3	164.483	F
2 - Maudlin Lane	18	4	1460	433	0.041	18	16	0.0	0.0	8.669	A
3 - Clays Hill	660	165	1078	713	0.925	653	400	7.2	8.9	51.794	F
4 - A283 North	958	239	645	1073	0.893	954	1086	6.4	7.2	28.883	D
5 - Castle Lane	118	29	1569	334	0.353	118	31	0.5	0.5	16.631	C
6 - The Street	218	55	1429	645	0.338	218	258	0.5	0.5	8.422	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1091	273	210	1249	0.874	1230	1176	67.3	32.6	148.849	F
2 - Maudlin Lane	14	4	1426	451	0.032	14	14	0.0	0.0	8.253	A
3 - Clays Hill	538	135	1056	724	0.744	561	385	8.9	3.1	24.587	C
4 - A283 North	782	196	556	1121	0.697	801	1061	7.2	2.4	11.876	B
5 - Castle Lane	96	24	1330	456	0.211	97	28	0.5	0.3	10.055	B
6 - The Street	178	44	1208	778	0.229	179	220	0.5	0.3	6.014	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	914	228	175	1267	0.721	1033	966	32.6	2.7	23.777	C
2 - Maudlin Lane	12	3	1197	578	0.021	12	12	0.0	0.0	6.365	A
3 - Clays Hill	451	113	886	819	0.550	458	322	3.1	1.3	10.173	B
4 - A283 North	655	164	455	1177	0.557	659	890	2.4	1.3	7.018	A
5 - Castle Lane	81	20	1092	578	0.139	81	23	0.3	0.2	7.252	A
6 - The Street	149	37	992	908	0.164	149	180	0.3	0.2	4.749	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	244.28	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1447	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	356	100.000
4 - A283 North		ONE HOUR	✓	1027	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	306	1065	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	236	2	0	26	3	89
	4 - A283 North	896	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.26	506.96	182.8	F	1328	1992
2 - Maudlin Lane	0.04	8.16	0.0	A	15	22
3 - Clays Hill	0.55	11.19	1.2	B	327	490
4 - A283 North	0.90	26.93	8.0	D	942	1414
5 - Castle Lane	0.15	10.64	0.2	B	51	77
6 - The Street	0.35	7.57	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1089	272	200	1321	0.825	1072	883	0.0	4.3	13.674	B
2 - Maudlin Lane	12	3	1245	617	0.020	12	27	0.0	0.0	5.955	A
3 - Clays Hill	268	67	946	822	0.326	266	311	0.0	0.5	6.448	A
4 - A283 North	773	193	311	1332	0.580	768	901	0.0	1.4	6.316	A
5 - Castle Lane	42	11	1023	638	0.066	42	56	0.0	0.1	6.037	A
6 - The Street	172	43	911	973	0.177	172	153	0.0	0.2	4.487	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1301	325	239	1299	1.002	1244	1057	4.3	18.4	43.944	E
2 - Maudlin Lane	14	4	1452	500	0.029	14	32	0.0	0.0	7.410	A
3 - Clays Hill	320	80	1102	739	0.433	319	364	0.5	0.8	8.545	A
4 - A283 North	923	231	371	1298	0.712	919	1049	1.4	2.4	9.411	A
5 - Castle Lane	50	13	1224	538	0.094	50	66	0.1	0.1	7.385	A
6 - The Street	206	51	1091	870	0.237	205	183	0.2	0.3	5.418	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1593	398	292	1269	1.255	1267	1282	18.4	100.0	177.172	F
2 - Maudlin Lane	18	4	1522	460	0.038	18	37	0.0	0.0	8.135	A
3 - Clays Hill	392	98	1149	714	0.549	390	391	0.8	1.2	11.048	B
4 - A283 North	1131	283	443	1256	0.900	1111	1096	2.4	7.2	22.405	C
5 - Castle Lane	62	15	1483	409	0.151	61	71	0.1	0.2	10.357	B
6 - The Street	252	63	1323	737	0.342	251	222	0.3	0.5	7.403	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1593	398	294	1269	1.256	1268	1297	100.0	181.3	402.376	F
2 - Maudlin Lane	18	4	1525	459	0.038	18	37	0.0	0.0	8.163	A
3 - Clays Hill	392	98	1150	713	0.549	392	393	1.2	1.2	11.190	B
4 - A283 North	1131	283	445	1255	0.901	1128	1097	7.2	8.0	26.928	D
5 - Castle Lane	62	15	1501	400	0.154	62	71	0.2	0.2	10.644	B
6 - The Street	252	63	1339	727	0.347	252	224	0.5	0.5	7.572	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1301	325	242	1297	1.003	1295	1082	181.3	182.8	506.960	F
2 - Maudlin Lane	14	4	1504	471	0.031	14	33	0.0	0.0	7.884	A
3 - Clays Hill	320	80	1142	718	0.446	322	376	1.2	0.8	9.123	A
4 - A283 North	923	231	376	1295	0.713	945	1087	8.0	2.6	10.871	B
5 - Castle Lane	50	13	1253	523	0.096	51	68	0.2	0.1	7.620	A
6 - The Street	206	51	1117	855	0.241	207	186	0.5	0.3	5.560	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1089	272	202	1320	0.826	1312	894	182.8	127.1	425.902	F
2 - Maudlin Lane	12	3	1485	482	0.025	12	29	0.0	0.0	7.665	A
3 - Clays Hill	268	67	1134	722	0.371	269	363	0.8	0.6	7.965	A
4 - A283 North	773	193	325	1325	0.584	778	1078	2.6	1.4	6.637	A
5 - Castle Lane	42	11	1037	631	0.067	42	66	0.1	0.1	6.119	A
6 - The Street	172	43	923	966	0.178	173	156	0.3	0.2	4.538	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	84.39	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1210	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	596	100.000
4 - A283 North		ONE HOUR	✓	866	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	298	889	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	415	0	0	53	3	125
	4 - A283 North	770	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.09	160.40	65.4	F	1110	1665
2 - Maudlin Lane	0.04	8.67	0.0	A	15	22
3 - Clays Hill	0.92	50.02	8.5	F	547	820
4 - A283 North	0.89	27.81	6.9	D	795	1192
5 - Castle Lane	0.35	16.36	0.5	C	98	147
6 - The Street	0.34	8.35	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	911	228	174	1267	0.719	901	944	0.0	2.5	9.586	A
2 - Maudlin Lane	12	3	1064	652	0.018	12	11	0.0	0.0	5.627	A
3 - Clays Hill	449	112	786	876	0.512	445	289	0.0	1.0	8.272	A
4 - A283 North	652	163	440	1185	0.550	647	791	0.0	1.2	6.639	A
5 - Castle Lane	81	20	1066	591	0.136	80	22	0.0	0.2	7.036	A
6 - The Street	149	37	969	921	0.162	148	176	0.0	0.2	4.653	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1088	272	208	1249	0.871	1074	1130	2.5	5.8	19.213	C
2 - Maudlin Lane	14	4	1269	538	0.027	14	13	0.0	0.0	6.873	A
3 - Clays Hill	536	134	938	791	0.678	532	345	1.0	2.0	13.701	B
4 - A283 North	779	195	527	1137	0.685	775	943	1.2	2.1	9.835	A
5 - Castle Lane	96	24	1276	484	0.199	96	26	0.2	0.2	9.272	A
6 - The Street	178	44	1161	806	0.221	178	211	0.2	0.3	5.724	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1332	333	254	1225	1.087	1206	1363	5.8	37.5	76.485	F
2 - Maudlin Lane	18	4	1443	442	0.040	18	16	0.0	0.0	8.480	A
3 - Clays Hill	656	164	1066	720	0.912	636	395	2.0	7.0	36.727	E
4 - A283 North	953	238	629	1081	0.882	937	1073	2.1	6.2	22.855	C
5 - Castle Lane	118	29	1536	351	0.336	117	30	0.2	0.5	15.338	C
6 - The Street	218	55	1400	663	0.329	217	253	0.3	0.5	8.068	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1332	333	255	1225	1.088	1221	1385	37.5	65.4	160.399	F
2 - Maudlin Lane	18	4	1460	433	0.041	18	16	0.0	0.0	8.665	A
3 - Clays Hill	656	164	1078	713	0.921	650	400	7.0	8.5	50.025	F
4 - A283 North	953	238	642	1074	0.888	950	1086	6.2	6.9	27.808	D
5 - Castle Lane	118	29	1562	337	0.349	118	31	0.5	0.5	16.364	C
6 - The Street	218	55	1422	649	0.336	218	258	0.5	0.5	8.346	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1088	272	210	1248	0.871	1230	1168	65.4	29.9	142.494	F
2 - Maudlin Lane	14	4	1426	451	0.032	14	14	0.0	0.0	8.249	A
3 - Clays Hill	536	134	1056	724	0.740	558	384	8.5	3.1	23.859	C
4 - A283 North	779	195	553	1123	0.693	797	1061	6.9	2.3	11.613	B
5 - Castle Lane	96	24	1322	460	0.209	97	28	0.5	0.3	9.942	A
6 - The Street	178	44	1200	783	0.227	179	219	0.5	0.3	5.965	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	911	228	175	1267	0.719	1020	961	29.9	2.7	21.363	C
2 - Maudlin Lane	12	3	1183	585	0.021	12	12	0.0	0.0	6.286	A
3 - Clays Hill	449	112	876	825	0.544	456	319	3.1	1.2	9.948	A
4 - A283 North	652	163	453	1178	0.554	656	880	2.3	1.3	6.957	A
5 - Castle Lane	81	20	1086	581	0.139	81	23	0.3	0.2	7.209	A
6 - The Street	149	37	987	911	0.164	149	180	0.3	0.2	4.730	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	245.35	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1448	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	356	100.000
4 - A283 North		ONE HOUR	✓	1025	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	306	1066	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	236	2	0	26	3	89
	4 - A283 North	894	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.26	509.08	183.7	F	1329	1993
2 - Maudlin Lane	0.04	8.16	0.0	A	15	22
3 - Clays Hill	0.55	11.19	1.2	B	327	490
4 - A283 North	0.90	26.55	7.8	D	941	1411
5 - Castle Lane	0.15	10.61	0.2	B	51	77
6 - The Street	0.35	7.55	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	273	200	1321	0.826	1073	881	0.0	4.3	13.707	B
2 - Maudlin Lane	12	3	1246	616	0.020	12	27	0.0	0.0	5.958	A
3 - Clays Hill	268	67	947	822	0.326	266	311	0.0	0.5	6.453	A
4 - A283 North	772	193	311	1332	0.579	766	901	0.0	1.4	6.302	A
5 - Castle Lane	42	11	1021	639	0.066	42	56	0.0	0.1	6.030	A
6 - The Street	172	43	910	974	0.177	172	153	0.0	0.2	4.482	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1302	325	239	1299	1.002	1245	1055	4.3	18.6	44.157	E
2 - Maudlin Lane	14	4	1452	500	0.029	14	32	0.0	0.0	7.414	A
3 - Clays Hill	320	80	1102	739	0.433	319	364	0.5	0.8	8.551	A
4 - A283 North	921	230	371	1297	0.710	917	1050	1.4	2.4	9.369	A
5 - Castle Lane	50	13	1223	538	0.094	50	66	0.1	0.1	7.372	A
6 - The Street	206	51	1089	871	0.236	205	183	0.2	0.3	5.409	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1594	399	292	1269	1.256	1267	1280	18.6	100.4	177.892	F
2 - Maudlin Lane	18	4	1523	460	0.038	18	37	0.0	0.0	8.135	A
3 - Clays Hill	392	98	1149	714	0.549	390	391	0.8	1.2	11.052	B
4 - A283 North	1129	282	443	1256	0.899	1110	1096	2.4	7.1	22.173	C
5 - Castle Lane	62	15	1482	410	0.151	61	71	0.1	0.2	10.330	B
6 - The Street	252	63	1321	738	0.342	251	222	0.3	0.5	7.387	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1594	399	294	1269	1.257	1268	1295	100.4	181.9	403.852	F
2 - Maudlin Lane	18	4	1525	459	0.038	18	37	0.0	0.0	8.163	A
3 - Clays Hill	392	98	1150	713	0.550	392	392	1.2	1.2	11.193	B
4 - A283 North	1129	282	445	1255	0.899	1126	1098	7.1	7.8	26.553	D
5 - Castle Lane	62	15	1499	401	0.154	62	71	0.2	0.2	10.612	B
6 - The Street	252	63	1337	729	0.346	252	224	0.5	0.5	7.553	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1302	325	242	1297	1.003	1295	1080	181.9	183.7	509.082	F
2 - Maudlin Lane	14	4	1504	471	0.031	14	33	0.0	0.0	7.887	A
3 - Clays Hill	320	80	1142	718	0.446	322	376	1.2	0.8	9.127	A
4 - A283 North	921	230	376	1295	0.712	943	1088	7.8	2.6	10.791	B
5 - Castle Lane	50	13	1250	525	0.096	51	68	0.2	0.1	7.599	A
6 - The Street	206	51	1115	856	0.240	207	186	0.5	0.3	5.548	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	273	202	1320	0.826	1312	892	183.7	128.1	428.457	F
2 - Maudlin Lane	12	3	1485	482	0.025	12	29	0.0	0.0	7.666	A
3 - Clays Hill	268	67	1134	722	0.371	269	363	0.8	0.6	7.969	A
4 - A283 North	772	193	325	1325	0.583	776	1079	2.6	1.4	6.621	A
5 - Castle Lane	42	11	1035	632	0.067	42	66	0.1	0.1	6.111	A
6 - The Street	172	43	921	967	0.178	173	156	0.3	0.2	4.534	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	79.84	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1199	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	598	100.000
4 - A283 North		ONE HOUR	✓	868	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	297	879	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	417	0	0	53	3	125
	4 - A283 North	772	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.08	149.34	60.1	F	1100	1650
2 - Maudlin Lane	0.04	8.66	0.0	A	15	22
3 - Clays Hill	0.92	50.38	8.6	F	549	823
4 - A283 North	0.89	28.42	7.1	D	796	1195
5 - Castle Lane	0.35	16.51	0.5	C	98	147
6 - The Street	0.34	8.39	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	903	226	174	1267	0.713	893	947	0.0	2.4	9.409	A
2 - Maudlin Lane	12	3	1056	656	0.018	12	11	0.0	0.0	5.591	A
3 - Clays Hill	450	113	779	880	0.512	446	289	0.0	1.0	8.228	A
4 - A283 North	653	163	442	1184	0.552	649	783	0.0	1.2	6.663	A
5 - Castle Lane	81	20	1069	589	0.137	80	22	0.0	0.2	7.056	A
6 - The Street	149	37	972	919	0.162	148	176	0.0	0.2	4.663	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1078	269	208	1249	0.863	1065	1134	2.4	5.5	18.460	C
2 - Maudlin Lane	14	4	1260	543	0.027	14	13	0.0	0.0	6.812	A
3 - Clays Hill	538	134	930	795	0.676	534	345	1.0	2.0	13.572	B
4 - A283 North	780	195	528	1137	0.687	777	935	1.2	2.1	9.902	A
5 - Castle Lane	96	24	1279	482	0.200	96	26	0.2	0.2	9.314	A
6 - The Street	178	44	1164	804	0.221	178	211	0.2	0.3	5.743	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1320	330	254	1225	1.078	1203	1367	5.5	34.9	72.424	F
2 - Maudlin Lane	18	4	1441	443	0.040	18	16	0.0	0.0	8.454	A
3 - Clays Hill	658	165	1062	721	0.913	638	396	2.0	7.0	36.745	E
4 - A283 North	956	239	631	1080	0.885	939	1069	2.1	6.3	23.223	C
5 - Castle Lane	118	29	1540	349	0.338	117	30	0.2	0.5	15.458	C
6 - The Street	218	55	1403	660	0.330	217	253	0.3	0.5	8.107	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1320	330	255	1224	1.078	1219	1389	34.9	60.1	149.339	F
2 - Maudlin Lane	18	4	1458	434	0.041	18	16	0.0	0.0	8.655	A
3 - Clays Hill	658	165	1075	714	0.922	652	401	7.0	8.6	50.382	F
4 - A283 North	956	239	644	1073	0.891	952	1083	6.3	7.1	28.420	D
5 - Castle Lane	118	29	1566	335	0.351	118	31	0.5	0.5	16.513	C
6 - The Street	218	55	1426	647	0.337	218	258	0.5	0.5	8.388	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1078	269	210	1248	0.864	1227	1173	60.1	22.8	125.419	F
2 - Maudlin Lane	14	4	1423	452	0.032	14	14	0.0	0.0	8.230	A
3 - Clays Hill	538	134	1052	726	0.741	560	386	8.6	3.1	23.965	C
4 - A283 North	780	195	555	1122	0.695	799	1057	7.1	2.4	11.756	B
5 - Castle Lane	96	24	1326	458	0.210	97	28	0.5	0.3	10.001	B
6 - The Street	178	44	1204	780	0.228	179	219	0.5	0.3	5.990	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	903	226	175	1266	0.713	983	964	22.8	2.6	16.418	C
2 - Maudlin Lane	12	3	1147	605	0.020	12	12	0.0	0.0	6.075	A
3 - Clays Hill	450	113	848	841	0.535	458	312	3.1	1.2	9.577	A
4 - A283 North	653	163	454	1177	0.555	658	851	2.4	1.3	6.986	A
5 - Castle Lane	81	20	1089	579	0.139	81	23	0.3	0.2	7.234	A
6 - The Street	149	37	990	909	0.164	149	180	0.3	0.2	4.743	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	233.97	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1437	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	354	100.000
4 - A283 North		ONE HOUR	✓	1013	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	303	1058	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	234	2	0	26	3	89
	4 - A283 North	882	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.25	485.89	174.8	F	1319	1978
2 - Maudlin Lane	0.04	8.16	0.0	A	15	22
3 - Clays Hill	0.55	11.13	1.2	B	325	487
4 - A283 North	0.89	24.33	7.1	C	930	1394
5 - Castle Lane	0.15	10.39	0.2	B	51	77
6 - The Street	0.34	7.42	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1082	270	200	1320	0.819	1065	871	0.0	4.2	13.345	B
2 - Maudlin Lane	12	3	1238	620	0.019	12	27	0.0	0.0	5.917	A
3 - Clays Hill	267	67	941	825	0.323	265	309	0.0	0.5	6.402	A
4 - A283 North	763	191	310	1333	0.572	757	896	0.0	1.3	6.201	A
5 - Castle Lane	42	11	1011	644	0.066	42	56	0.0	0.1	5.979	A
6 - The Street	172	43	899	980	0.176	172	153	0.0	0.2	4.450	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1292	323	239	1299	0.995	1240	1043	4.2	17.2	41.864	E
2 - Maudlin Lane	14	4	1447	503	0.029	14	32	0.0	0.0	7.371	A
3 - Clays Hill	318	80	1099	741	0.430	317	363	0.5	0.7	8.478	A
4 - A283 North	911	228	370	1298	0.702	907	1046	1.3	2.3	9.109	A
5 - Castle Lane	50	13	1210	544	0.092	50	66	0.1	0.1	7.282	A
6 - The Street	206	51	1077	878	0.235	205	183	0.2	0.3	5.353	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1582	396	292	1269	1.247	1266	1266	17.2	96.2	170.170	F
2 - Maudlin Lane	18	4	1522	460	0.038	18	37	0.0	0.0	8.131	A
3 - Clays Hill	390	97	1149	714	0.546	388	391	0.7	1.2	10.985	B
4 - A283 North	1115	279	441	1257	0.888	1098	1096	2.3	6.5	20.785	C
5 - Castle Lane	62	15	1468	416	0.148	61	71	0.1	0.2	10.138	B
6 - The Street	252	63	1307	746	0.338	251	222	0.3	0.5	7.272	A

17:30 - 17:45

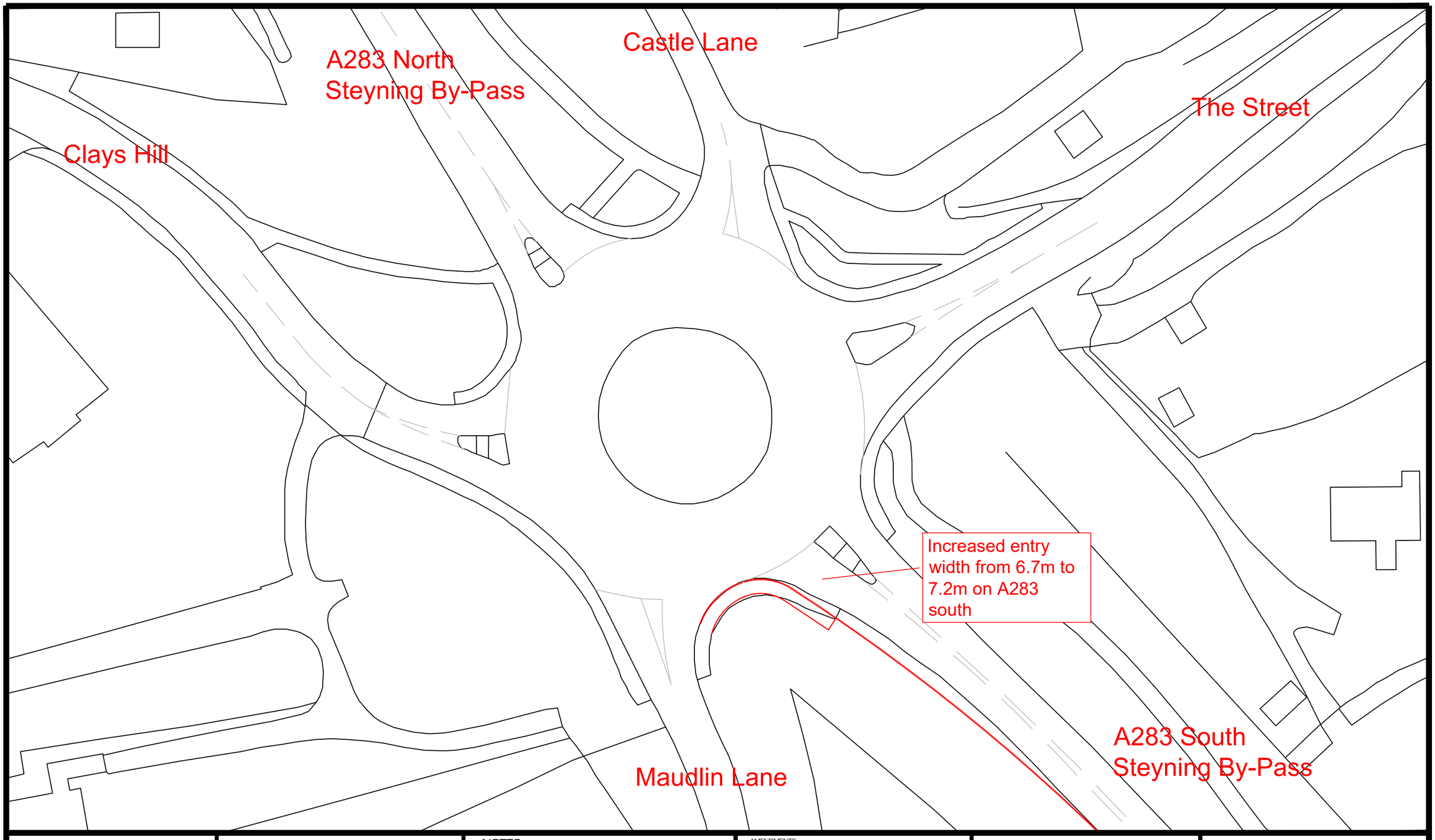
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1582	396	294	1268	1.247	1268	1280	96.2	174.7	387.843	F
2 - Maudlin Lane	18	4	1525	459	0.038	18	37	0.0	0.0	8.162	A
3 - Clays Hill	390	97	1151	713	0.547	390	392	1.2	1.2	11.127	B
4 - A283 North	1115	279	443	1256	0.888	1113	1098	6.5	7.1	24.334	C
5 - Castle Lane	62	15	1484	408	0.151	62	72	0.2	0.2	10.391	B
6 - The Street	252	63	1322	737	0.342	252	224	0.5	0.5	7.422	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1292	323	242	1297	0.996	1291	1065	174.7	174.8	485.892	F
2 - Maudlin Lane	14	4	1500	473	0.030	14	33	0.0	0.0	7.855	A
3 - Clays Hill	318	80	1140	719	0.443	320	375	1.2	0.8	9.062	A
4 - A283 North	911	228	375	1295	0.703	929	1085	7.1	2.4	10.306	B
5 - Castle Lane	50	13	1235	532	0.095	51	69	0.2	0.1	7.483	A
6 - The Street	206	51	1100	865	0.238	207	186	0.5	0.3	5.478	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1082	270	202	1320	0.820	1312	882	174.8	117.2	401.541	F
2 - Maudlin Lane	12	3	1485	482	0.025	12	29	0.0	0.0	7.659	A
3 - Clays Hill	267	67	1135	721	0.369	267	362	0.8	0.6	7.943	A
4 - A283 North	763	191	324	1325	0.576	767	1078	2.4	1.4	6.502	A
5 - Castle Lane	42	11	1024	637	0.066	42	66	0.1	0.1	6.054	A
6 - The Street	172	43	910	973	0.177	173	156	0.3	0.2	4.500	A



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T R A F F I C &
H I G H W A Y S

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NOTES

1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A283 / CLAY HILL

Date	Drawn		
12/11/2021	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
1/500@A3	APPENDIX 17.2		

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: Junction 4 (Clays Hill) Proposed.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 4 (Clays Hill)
Report generation date: 12/01/2022 15:03:25

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 17.3
ARCADY OUTPUTS: PROPOSED DEVELOPMENT SCENARIOS
(WITH PROPOSED JUNCTION IMPROVEMENTS)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A283 South	16.6	46.56	0.97	E	45.99	E	-8 % [3 - Clays Hill]	85.2	172.28	1.10	F	91.57	F	-13 % [1 - A283 South]
2 - Maudlin Lane	0.0	10.27	0.05	B				0.1	10.54	0.05	B			
3 - Clays Hill	16.6	90.90	1.00	F				1.6	14.57	0.61	B			
4 - A283 North	7.1	28.24	0.89	D				9.0	30.15	0.91	D			
5 - Castle Lane	0.5	16.29	0.35	C				0.2	10.85	0.16	B			
6 - The Street	0.5	8.35	0.34	A				0.5	7.68	0.35	A			
Scenario 2 Total														
1 - A283 South	14.6	41.61	0.96	E	42.48	E	-7 % [3 - Clays Hill]	83.1	168.54	1.10	F	89.16	F	-13 % [1 - A283 South]
2 - Maudlin Lane	0.0	10.09	0.05	B				0.1	10.54	0.05	B			
3 - Clays Hill	15.1	83.74	0.99	F				1.5	14.54	0.61	B			
4 - A283 North	7.0	27.86	0.89	D				8.2	27.71	0.90	D			
5 - Castle Lane	0.5	16.25	0.35	C				0.2	10.65	0.15	B			
6 - The Street	0.5	8.33	0.34	A				0.5	7.57	0.35	A			
Scenario 3 Total														
1 - A283 South	14.0	40.31	0.95	E	40.84	E	-7 % [3 - Clays Hill]	83.6	169.48	1.10	F	89.53	F	-13 % [1 - A283 South]
2 - Maudlin Lane	0.0	10.03	0.05	B				0.1	10.54	0.05	B			
3 - Clays Hill	14.1	79.51	0.98	F				1.5	14.54	0.61	B			
4 - A283 North	6.7	26.96	0.88	D				8.1	27.32	0.90	D			
5 - Castle Lane	0.5	16.04	0.34	C				0.2	10.62	0.15	B			
6 - The Street	0.5	8.27	0.33	A				0.5	7.55	0.35	A			
Scenario 4 Total														
1 - A283 South	12.7	37.00	0.95	E	39.25	E	-6 % [3 - Clays Hill]	77.9	159.26	1.09	F	84.04	F	-13 % [1 - A283 South]
2 - Maudlin Lane	0.0	9.89	0.05	A				0.1	10.53	0.05	B			
3 - Clays Hill	13.7	76.99	0.98	F				1.5	14.42	0.61	B			
4 - A283 North	6.9	27.65	0.89	D				7.3	25.00	0.89	C			
5 - Castle Lane	0.5	16.23	0.35	C				0.2	10.40	0.15	B			
6 - The Street	0.5	8.32	0.34	A				0.5	7.42	0.34	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15			
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	45.99	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - Clays Hill

Arms

Arms

Arm	Name	Description
1	A283 South	
2	Maudlin Lane	
3	Clays Hill	
4	A283 North	
5	Castle Lane	
6	The Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A283 South	3.60	7.20	23.5	8.0	49.0	39.0	
2 - Maudlin Lane	3.10	5.00	6.8	35.5	49.0	19.0	
3 - Clays Hill	3.80	6.50	3.5	10.3	49.0	27.0	
4 - A283 North	4.40	7.20	2.6	17.8	49.0	25.0	
5 - Castle Lane	2.20	5.60	12.7	9.8	49.0	33.0	
6 - The Street	3.90	6.50	7.0	14.1	49.0	27.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A283 South	0.570	1632
2 - Maudlin Lane	0.557	1317
3 - Clays Hill	0.533	1338
4 - A283 North	0.586	1541
5 - Castle Lane	0.490	1147
6 - The Street	0.577	1526

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1228	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	600	100.000
4 - A283 North		ONE HOUR	✓	873	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	300	905	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	419	0	0	53	3	125
	4 - A283 North	777	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	0.97	46.56	16.6	E	1127	1690
2 - Maudlin Lane	0.05	10.27	0.0	B	15	22
3 - Clays Hill	1.00	90.90	16.6	F	551	826
4 - A283 North	0.89	28.24	7.1	D	801	1202
5 - Castle Lane	0.35	16.29	0.5	C	98	147
6 - The Street	0.34	8.35	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	925	231	174	1443	0.641	918	952	0.0	1.7	6.762	A
2 - Maudlin Lane	12	3	1080	643	0.019	12	11	0.0	0.0	5.705	A
3 - Clays Hill	452	113	800	868	0.520	447	292	0.0	1.1	8.471	A
4 - A283 North	657	164	443	1184	0.555	652	805	0.0	1.2	6.712	A
5 - Castle Lane	81	20	1074	587	0.137	80	22	0.0	0.2	7.090	A
6 - The Street	149	37	977	917	0.163	148	176	0.0	0.2	4.681	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1104	276	208	1425	0.775	1098	1140	1.7	3.3	10.817	B
2 - Maudlin Lane	14	4	1292	526	0.027	14	13	0.0	0.0	7.041	A
3 - Clays Hill	539	135	958	780	0.691	535	349	1.1	2.1	14.438	B
4 - A283 North	785	196	530	1136	0.691	781	963	1.2	2.2	10.031	B
5 - Castle Lane	96	24	1285	479	0.201	96	26	0.2	0.2	9.383	A
6 - The Street	178	44	1170	801	0.222	178	211	0.2	0.3	5.774	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1352	338	254	1399	0.966	1312	1363	3.3	13.3	31.987	D
2 - Maudlin Lane	18	4	1550	383	0.046	18	16	0.0	0.0	9.836	A
3 - Clays Hill	661	165	1148	674	0.981	625	419	2.1	11.1	53.222	F
4 - A283 North	961	240	621	1086	0.885	945	1153	2.2	6.3	23.114	C
5 - Castle Lane	118	29	1534	352	0.335	117	31	0.2	0.5	15.267	C
6 - The Street	218	55	1400	662	0.329	217	251	0.3	0.5	8.073	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1352	338	255	1399	0.967	1339	1385	13.3	16.6	46.558	E
2 - Maudlin Lane	18	4	1577	368	0.048	18	16	0.0	0.0	10.270	B
3 - Clays Hill	661	165	1169	662	0.998	639	426	11.1	16.6	90.897	F
4 - A283 North	961	240	634	1079	0.891	958	1174	6.3	7.1	28.241	D
5 - Castle Lane	118	29	1560	338	0.348	118	32	0.5	0.5	16.292	C
6 - The Street	218	55	1423	649	0.336	218	255	0.5	0.5	8.351	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1104	276	210	1423	0.776	1156	1202	16.6	3.7	15.766	C
2 - Maudlin Lane	14	4	1352	492	0.029	14	14	0.0	0.0	7.531	A
3 - Clays Hill	539	135	1003	755	0.714	595	364	16.6	2.7	29.109	D
4 - A283 North	785	196	586	1106	0.710	803	1012	7.1	2.5	12.551	B
5 - Castle Lane	96	24	1362	441	0.218	97	27	0.5	0.3	10.504	B
6 - The Street	178	44	1233	764	0.233	179	226	0.5	0.3	6.162	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	925	231	175	1442	0.641	932	969	3.7	1.8	7.149	A
2 - Maudlin Lane	12	3	1096	634	0.019	12	11	0.0	0.0	5.786	A
3 - Clays Hill	452	113	812	862	0.524	458	296	2.7	1.1	9.049	A
4 - A283 North	657	164	453	1178	0.558	662	817	2.5	1.3	7.041	A
5 - Castle Lane	81	20	1093	577	0.140	81	22	0.3	0.2	7.266	A
6 - The Street	149	37	995	906	0.165	149	180	0.3	0.2	4.761	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	91.57	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1451	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	357	100.000
4 - A283 North		ONE HOUR	✓	1038	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	308	1067	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	237	2	0	26	3	89
	4 - A283 North	907	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.10	172.28	85.2	F	1331	1997
2 - Maudlin Lane	0.05	10.54	0.1	B	15	22
3 - Clays Hill	0.61	14.57	1.6	B	328	491
4 - A283 North	0.91	30.15	9.0	D	952	1429
5 - Castle Lane	0.16	10.85	0.2	B	51	77
6 - The Street	0.35	7.68	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1092	273	200	1504	0.726	1082	892	0.0	2.6	8.344	A
2 - Maudlin Lane	12	3	1255	611	0.020	12	27	0.0	0.0	6.010	A
3 - Clays Hill	269	67	953	819	0.328	267	314	0.0	0.5	6.501	A
4 - A283 North	781	195	312	1332	0.587	776	907	0.0	1.4	6.410	A
5 - Castle Lane	42	11	1031	634	0.067	42	57	0.0	0.1	6.082	A
6 - The Street	172	43	920	968	0.178	172	153	0.0	0.2	4.515	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1304	326	239	1481	0.881	1289	1068	2.6	6.4	17.500	C
2 - Maudlin Lane	14	4	1497	475	0.030	14	32	0.0	0.0	7.813	A
3 - Clays Hill	321	80	1136	721	0.445	320	375	0.5	0.8	8.944	A
4 - A283 North	933	233	374	1296	0.720	929	1082	1.4	2.5	9.681	A
5 - Castle Lane	50	13	1235	532	0.095	50	68	0.1	0.1	7.465	A
6 - The Street	206	51	1102	864	0.238	205	183	0.2	0.3	5.466	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1598	399	292	1451	1.101	1433	1292	6.4	47.5	78.164	F
2 - Maudlin Lane	18	4	1687	368	0.048	18	38	0.0	0.0	10.282	B
3 - Clays Hill	393	98	1277	646	0.609	390	428	0.8	1.5	13.947	B
4 - A283 North	1143	286	450	1252	0.913	1121	1217	2.5	8.0	24.213	C
5 - Castle Lane	62	15	1494	404	0.153	61	77	0.1	0.2	10.513	B
6 - The Street	252	63	1333	731	0.345	251	222	0.3	0.5	7.492	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1598	399	294	1450	1.102	1447	1310	47.5	85.2	172.281	F
2 - Maudlin Lane	18	4	1702	359	0.049	18	38	0.0	0.1	10.540	B
3 - Clays Hill	393	98	1289	639	0.615	393	431	1.5	1.6	14.569	B
4 - A283 North	1143	286	453	1250	0.914	1139	1228	8.0	9.0	30.148	D
5 - Castle Lane	62	15	1514	393	0.157	62	78	0.2	0.2	10.850	B
6 - The Street	252	63	1351	721	0.350	252	224	0.5	0.5	7.683	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1304	326	242	1480	0.882	1463	1096	85.2	45.6	162.917	F
2 - Maudlin Lane	14	4	1670	377	0.038	14	34	0.1	0.0	9.918	A
3 - Clays Hill	321	80	1272	648	0.495	323	413	1.6	1.0	11.149	B
4 - A283 North	933	233	385	1290	0.723	958	1210	9.0	2.7	11.603	B
5 - Castle Lane	50	13	1268	516	0.098	51	75	0.2	0.1	7.747	A
6 - The Street	206	51	1131	847	0.243	207	188	0.5	0.3	5.630	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1092	273	202	1503	0.727	1264	904	45.6	2.8	27.707	D
2 - Maudlin Lane	12	3	1437	509	0.024	12	29	0.0	0.0	7.248	A
3 - Clays Hill	269	67	1095	743	0.362	270	354	1.0	0.6	7.654	A
4 - A283 North	781	195	324	1325	0.590	786	1042	2.7	1.5	6.742	A
5 - Castle Lane	42	11	1047	626	0.067	42	64	0.1	0.1	6.170	A
6 - The Street	172	43	933	961	0.179	173	156	0.3	0.2	4.572	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	42.48	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	3 - Clays Hill

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1214	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	599	100.000
4 - A283 North		ONE HOUR	✓	870	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	299	892	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	418	0	0	53	3	125
	4 - A283 North	774	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	0.96	41.61	14.6	E	1114	1671
2 - Maudlin Lane	0.05	10.09	0.0	B	15	22
3 - Clays Hill	0.99	83.74	15.1	F	550	824
4 - A283 North	0.89	27.86	7.0	D	798	1197
5 - Castle Lane	0.35	16.25	0.5	C	98	147
6 - The Street	0.34	8.33	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	914	228	174	1442	0.634	907	949	0.0	1.7	6.647	A
2 - Maudlin Lane	12	3	1070	648	0.019	12	11	0.0	0.0	5.656	A
3 - Clays Hill	451	113	791	873	0.516	447	291	0.0	1.0	8.360	A
4 - A283 North	655	164	442	1184	0.553	650	795	0.0	1.2	6.685	A
5 - Castle Lane	81	20	1071	588	0.137	80	22	0.0	0.2	7.070	A
6 - The Street	149	37	975	918	0.162	148	176	0.0	0.2	4.670	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1091	273	208	1424	0.767	1086	1136	1.7	3.1	10.472	B
2 - Maudlin Lane	14	4	1280	532	0.027	14	13	0.0	0.0	6.954	A
3 - Clays Hill	538	135	946	786	0.685	534	348	1.0	2.1	14.069	B
4 - A283 North	782	196	529	1136	0.688	778	952	1.2	2.1	9.957	A
5 - Castle Lane	96	24	1282	481	0.200	96	26	0.2	0.2	9.343	A
6 - The Street	178	44	1167	803	0.222	178	211	0.2	0.3	5.756	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1337	334	254	1398	0.956	1301	1361	3.1	12.0	29.718	D
2 - Maudlin Lane	18	4	1539	389	0.045	18	16	0.0	0.0	9.689	A
3 - Clays Hill	660	165	1138	679	0.971	626	419	2.1	10.4	50.504	F
4 - A283 North	958	239	622	1085	0.883	942	1142	2.1	6.2	22.852	C
5 - Castle Lane	118	29	1532	352	0.334	117	31	0.2	0.5	15.212	C
6 - The Street	218	55	1398	664	0.329	217	251	0.3	0.5	8.050	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1337	334	255	1398	0.956	1326	1383	12.0	14.6	41.608	E
2 - Maudlin Lane	18	4	1565	374	0.047	18	16	0.0	0.0	10.087	B
3 - Clays Hill	660	165	1157	668	0.987	641	426	10.4	15.1	83.744	F
4 - A283 North	958	239	636	1078	0.889	955	1162	6.2	7.0	27.859	D
5 - Castle Lane	118	29	1559	339	0.347	118	32	0.5	0.5	16.245	C
6 - The Street	218	55	1421	650	0.335	218	256	0.5	0.5	8.329	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1091	273	210	1422	0.767	1136	1194	14.6	3.5	14.296	B
2 - Maudlin Lane	14	4	1332	503	0.029	14	14	0.0	0.0	7.369	A
3 - Clays Hill	538	135	985	764	0.705	589	361	15.1	2.5	25.581	D
4 - A283 North	782	196	580	1109	0.706	800	994	7.0	2.5	12.287	B
5 - Castle Lane	96	24	1353	445	0.216	97	27	0.5	0.3	10.373	B
6 - The Street	178	44	1225	768	0.232	179	225	0.5	0.3	6.113	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	914	228	175	1441	0.634	921	966	3.5	1.8	7.001	A
2 - Maudlin Lane	12	3	1085	640	0.019	12	11	0.0	0.0	5.735	A
3 - Clays Hill	451	113	802	867	0.520	457	295	2.5	1.1	8.893	A
4 - A283 North	655	164	452	1179	0.556	660	807	2.5	1.3	7.000	A
5 - Castle Lane	81	20	1090	579	0.139	81	22	0.3	0.2	7.237	A
6 - The Street	149	37	991	908	0.164	149	179	0.3	0.2	4.747	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	89.16	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1447	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	356	100.000
4 - A283 North		ONE HOUR	✓	1027	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	306	1065	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	236	2	0	26	3	89
	4 - A283 North	896	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.10	168.54	83.1	F	1328	1992
2 - Maudlin Lane	0.05	10.54	0.1	B	15	22
3 - Clays Hill	0.61	14.54	1.5	B	327	490
4 - A283 North	0.90	27.71	8.2	D	942	1414
5 - Castle Lane	0.15	10.65	0.2	B	51	77
6 - The Street	0.35	7.57	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1089	272	200	1504	0.724	1079	883	0.0	2.5	8.291	A
2 - Maudlin Lane	12	3	1252	613	0.020	12	27	0.0	0.0	5.994	A
3 - Clays Hill	268	67	951	820	0.327	266	313	0.0	0.5	6.483	A
4 - A283 North	773	193	312	1332	0.580	768	906	0.0	1.4	6.318	A
5 - Castle Lane	42	11	1023	638	0.066	42	57	0.0	0.1	6.037	A
6 - The Street	172	43	911	973	0.177	172	153	0.0	0.2	4.487	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1301	325	239	1481	0.878	1286	1057	2.5	6.3	17.252	C
2 - Maudlin Lane	14	4	1493	477	0.030	14	32	0.0	0.0	7.783	A
3 - Clays Hill	320	80	1134	722	0.443	319	373	0.5	0.8	8.908	A
4 - A283 North	923	231	373	1297	0.712	919	1080	1.4	2.4	9.435	A
5 - Castle Lane	50	13	1224	537	0.094	50	68	0.1	0.1	7.386	A
6 - The Street	206	51	1091	870	0.237	205	184	0.2	0.3	5.417	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1593	398	292	1451	1.098	1432	1281	6.3	46.5	76.801	F
2 - Maudlin Lane	18	4	1687	368	0.048	18	38	0.0	0.0	10.271	B
3 - Clays Hill	392	98	1278	645	0.608	389	426	0.8	1.5	13.904	B
4 - A283 North	1131	283	449	1252	0.903	1111	1218	2.4	7.4	22.802	C
5 - Castle Lane	62	15	1483	409	0.151	61	77	0.1	0.2	10.349	B
6 - The Street	252	63	1322	737	0.342	251	222	0.3	0.5	7.393	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1593	398	294	1450	1.099	1447	1297	46.5	83.1	168.539	F
2 - Maudlin Lane	18	4	1702	359	0.049	18	38	0.0	0.1	10.537	B
3 - Clays Hill	392	98	1289	639	0.613	392	430	1.5	1.5	14.535	B
4 - A283 North	1131	283	452	1250	0.904	1127	1229	7.4	8.2	27.715	D
5 - Castle Lane	62	15	1502	400	0.154	62	78	0.2	0.2	10.655	B
6 - The Street	252	63	1339	728	0.347	252	225	0.5	0.5	7.570	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1301	325	242	1480	0.879	1462	1083	83.1	42.8	157.027	F
2 - Maudlin Lane	14	4	1670	378	0.038	14	34	0.1	0.0	9.912	A
3 - Clays Hill	320	80	1273	648	0.494	322	412	1.5	1.0	11.132	B
4 - A283 North	923	231	384	1290	0.716	946	1211	8.2	2.6	11.074	B
5 - Castle Lane	50	13	1255	522	0.096	51	75	0.2	0.1	7.636	A
6 - The Street	206	51	1118	854	0.241	207	188	0.5	0.3	5.564	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1089	272	202	1503	0.725	1249	895	42.8	2.8	24.682	C
2 - Maudlin Lane	12	3	1422	517	0.023	12	29	0.0	0.0	7.133	A
3 - Clays Hill	268	67	1085	748	0.358	270	350	1.0	0.6	7.552	A
4 - A283 North	773	193	323	1326	0.583	778	1032	2.6	1.4	6.627	A
5 - Castle Lane	42	11	1037	631	0.067	42	63	0.1	0.1	6.120	A
6 - The Street	172	43	923	966	0.178	173	156	0.3	0.2	4.540	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	40.84	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	3 - Clays Hill

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1210	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	596	100.000
4 - A283 North		ONE HOUR	✓	866	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	298	889	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	415	0	0	53	3	125
	4 - A283 North	770	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	0.95	40.31	14.0	E	1110	1665
2 - Maudlin Lane	0.05	10.03	0.0	B	15	22
3 - Clays Hill	0.98	79.51	14.1	F	547	820
4 - A283 North	0.88	26.96	6.7	D	795	1192
5 - Castle Lane	0.34	16.04	0.5	C	98	147
6 - The Street	0.33	8.27	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	911	228	174	1442	0.632	904	944	0.0	1.7	6.613	A
2 - Maudlin Lane	12	3	1067	650	0.019	12	11	0.0	0.0	5.643	A
3 - Clays Hill	449	112	789	874	0.513	445	290	0.0	1.0	8.298	A
4 - A283 North	652	163	440	1185	0.550	647	793	0.0	1.2	6.640	A
5 - Castle Lane	81	20	1066	591	0.136	80	22	0.0	0.2	7.036	A
6 - The Street	149	37	969	921	0.162	148	176	0.0	0.2	4.653	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1088	272	208	1423	0.764	1082	1130	1.7	3.1	10.379	B
2 - Maudlin Lane	14	4	1277	534	0.027	14	13	0.0	0.0	6.930	A
3 - Clays Hill	536	134	944	787	0.680	532	347	1.0	2.0	13.865	B
4 - A283 North	779	195	527	1137	0.685	775	949	1.2	2.1	9.835	A
5 - Castle Lane	96	24	1276	484	0.199	96	26	0.2	0.2	9.272	A
6 - The Street	178	44	1161	806	0.221	178	211	0.2	0.3	5.724	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1332	333	254	1398	0.953	1298	1355	3.1	11.6	29.112	D
2 - Maudlin Lane	18	4	1536	391	0.045	18	16	0.0	0.0	9.646	A
3 - Clays Hill	656	164	1135	680	0.965	625	418	2.0	9.9	48.843	E
4 - A283 North	953	238	620	1086	0.878	938	1140	2.1	6.0	22.297	C
5 - Castle Lane	118	29	1527	355	0.332	117	31	0.2	0.5	15.050	C
6 - The Street	218	55	1392	667	0.327	217	252	0.3	0.5	7.991	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1332	333	255	1398	0.953	1323	1377	11.6	14.0	40.313	E
2 - Maudlin Lane	18	4	1561	376	0.047	18	16	0.0	0.0	10.034	B
3 - Clays Hill	656	164	1154	670	0.980	639	425	9.9	14.1	79.512	F
4 - A283 North	953	238	634	1078	0.884	951	1160	6.0	6.7	26.963	D
5 - Castle Lane	118	29	1553	342	0.345	118	32	0.5	0.5	16.044	C
6 - The Street	218	55	1415	653	0.334	218	256	0.5	0.5	8.265	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1088	272	210	1422	0.765	1130	1185	14.0	3.4	13.942	B
2 - Maudlin Lane	14	4	1326	506	0.028	14	14	0.0	0.0	7.322	A
3 - Clays Hill	536	134	981	767	0.699	582	360	14.1	2.5	23.927	C
4 - A283 North	779	195	574	1111	0.700	796	990	6.7	2.4	11.974	B
5 - Castle Lane	96	24	1343	450	0.214	97	27	0.5	0.3	10.225	B
6 - The Street	178	44	1216	774	0.230	179	224	0.5	0.3	6.060	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	911	228	175	1441	0.632	918	960	3.4	1.8	6.961	A
2 - Maudlin Lane	12	3	1082	642	0.019	12	11	0.0	0.0	5.719	A
3 - Clays Hill	449	112	800	868	0.517	454	294	2.5	1.1	8.806	A
4 - A283 North	652	163	449	1180	0.553	657	804	2.4	1.3	6.945	A
5 - Castle Lane	81	20	1084	582	0.139	81	22	0.3	0.2	7.197	A
6 - The Street	149	37	986	911	0.164	149	179	0.3	0.2	4.728	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	89.53	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1448	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	356	100.000
4 - A283 North		ONE HOUR	✓	1025	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	306	1066	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	236	2	0	26	3	89
	4 - A283 North	894	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.10	169.48	83.6	F	1329	1993
2 - Maudlin Lane	0.05	10.54	0.1	B	15	22
3 - Clays Hill	0.61	14.54	1.5	B	327	490
4 - A283 North	0.90	27.32	8.1	D	941	1411
5 - Castle Lane	0.15	10.62	0.2	B	51	77
6 - The Street	0.35	7.55	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	273	200	1504	0.725	1080	881	0.0	2.5	8.305	A
2 - Maudlin Lane	12	3	1253	612	0.020	12	27	0.0	0.0	5.998	A
3 - Clays Hill	268	67	952	819	0.327	266	313	0.0	0.5	6.488	A
4 - A283 North	772	193	312	1332	0.579	766	907	0.0	1.4	6.304	A
5 - Castle Lane	42	11	1021	639	0.066	42	57	0.0	0.1	6.030	A
6 - The Street	172	43	910	974	0.177	172	153	0.0	0.2	4.482	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1302	325	239	1481	0.879	1287	1055	2.5	6.3	17.315	C
2 - Maudlin Lane	14	4	1494	476	0.030	14	32	0.0	0.0	7.790	A
3 - Clays Hill	320	80	1135	721	0.444	319	373	0.5	0.8	8.918	A
4 - A283 North	921	230	373	1296	0.711	917	1081	1.4	2.4	9.394	A
5 - Castle Lane	50	13	1223	538	0.094	50	68	0.1	0.1	7.373	A
6 - The Street	206	51	1089	871	0.236	205	184	0.2	0.3	5.409	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1594	399	292	1451	1.099	1433	1279	6.3	46.7	77.147	F
2 - Maudlin Lane	18	4	1687	368	0.048	18	38	0.0	0.0	10.274	B
3 - Clays Hill	392	98	1278	645	0.608	389	426	0.8	1.5	13.914	B
4 - A283 North	1129	282	449	1252	0.901	1109	1218	2.4	7.3	22.565	C
5 - Castle Lane	62	15	1481	410	0.150	61	77	0.1	0.2	10.321	B
6 - The Street	252	63	1320	739	0.341	251	222	0.3	0.5	7.377	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1594	399	294	1450	1.100	1447	1295	46.7	83.6	169.484	F
2 - Maudlin Lane	18	4	1702	359	0.049	18	38	0.0	0.1	10.538	B
3 - Clays Hill	392	98	1290	639	0.614	392	430	1.5	1.5	14.543	B
4 - A283 North	1129	282	452	1250	0.903	1125	1229	7.3	8.1	27.320	D
5 - Castle Lane	62	15	1500	401	0.154	62	78	0.2	0.2	10.622	B
6 - The Street	252	63	1337	729	0.346	252	225	0.5	0.5	7.551	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1302	325	242	1480	0.880	1462	1081	83.6	43.5	158.500	F
2 - Maudlin Lane	14	4	1670	378	0.038	14	34	0.1	0.0	9.912	A
3 - Clays Hill	320	80	1273	648	0.494	322	412	1.5	1.0	11.138	B
4 - A283 North	921	230	384	1290	0.714	943	1211	8.1	2.6	10.986	B
5 - Castle Lane	50	13	1253	523	0.096	51	75	0.2	0.1	7.621	A
6 - The Street	206	51	1116	856	0.241	207	188	0.5	0.3	5.556	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1090	273	202	1503	0.725	1253	893	43.5	2.8	25.398	D
2 - Maudlin Lane	12	3	1426	515	0.023	12	29	0.0	0.0	7.161	A
3 - Clays Hill	268	67	1088	746	0.359	270	350	1.0	0.6	7.577	A
4 - A283 North	772	193	323	1326	0.582	776	1035	2.6	1.4	6.609	A
5 - Castle Lane	42	11	1036	631	0.067	42	63	0.1	0.1	6.114	A
6 - The Street	172	43	922	967	0.178	173	156	0.3	0.2	4.537	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	39.25	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-6	3 - Clays Hill

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1199	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	598	100.000
4 - A283 North		ONE HOUR	✓	868	100.000
5 - Castle Lane		ONE HOUR	✓	107	100.000
6 - The Street		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	3	297	879	13	7
	2 - Maudlin Lane	8	0	0	2	0	6
	3 - Clays Hill	417	0	0	53	3	125
	4 - A283 North	772	8	20	0	1	67
	5 - Castle Lane	54	1	3	19	0	30
	6 - The Street	17	3	67	98	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	2	8	0	0
	2 - Maudlin Lane	0	0	0	50	0	0
	3 - Clays Hill	1	0	0	4	33	2
	4 - A283 North	9	13	0	0	0	1
	5 - Castle Lane	2	0	0	0	0	0
	6 - The Street	0	0	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	0.95	37.00	12.7	E	1100	1650
2 - Maudlin Lane	0.05	9.89	0.0	A	15	22
3 - Clays Hill	0.98	76.99	13.7	F	549	823
4 - A283 North	0.89	27.65	6.9	D	796	1195
5 - Castle Lane	0.35	16.23	0.5	C	98	147
6 - The Street	0.34	8.32	0.5	A	182	273

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	903	226	174	1441	0.626	896	947	0.0	1.6	6.529	A
2 - Maudlin Lane	12	3	1059	654	0.018	12	11	0.0	0.0	5.605	A
3 - Clays Hill	450	113	781	878	0.513	446	289	0.0	1.0	8.251	A
4 - A283 North	653	163	442	1184	0.552	649	786	0.0	1.2	6.663	A
5 - Castle Lane	81	20	1069	589	0.137	80	22	0.0	0.2	7.056	A
6 - The Street	149	37	972	919	0.162	148	176	0.0	0.2	4.663	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1078	269	208	1423	0.758	1072	1134	1.6	3.0	10.126	B
2 - Maudlin Lane	14	4	1267	539	0.027	14	13	0.0	0.0	6.863	A
3 - Clays Hill	538	134	935	792	0.679	534	346	1.0	2.0	13.717	B
4 - A283 North	780	195	528	1136	0.687	777	940	1.2	2.1	9.903	A
5 - Castle Lane	96	24	1279	482	0.200	96	26	0.2	0.2	9.314	A
6 - The Street	178	44	1164	804	0.221	178	211	0.2	0.3	5.742	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1320	330	254	1397	0.945	1289	1360	3.0	10.8	27.515	D
2 - Maudlin Lane	18	4	1527	395	0.045	18	16	0.0	0.0	9.526	A
3 - Clays Hill	658	165	1127	685	0.961	628	418	2.0	9.7	47.895	E
4 - A283 North	956	239	623	1085	0.881	940	1131	2.1	6.1	22.698	C
5 - Castle Lane	118	29	1531	353	0.334	117	31	0.2	0.5	15.191	C
6 - The Street	218	55	1397	664	0.328	217	252	0.3	0.5	8.036	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1320	330	255	1397	0.945	1312	1382	10.8	12.7	37.005	E
2 - Maudlin Lane	18	4	1551	382	0.046	18	16	0.0	0.0	9.886	A
3 - Clays Hill	658	165	1145	675	0.976	643	424	9.7	13.7	76.985	F
4 - A283 North	956	239	637	1077	0.888	953	1150	6.1	6.9	27.645	D
5 - Castle Lane	118	29	1558	339	0.347	118	32	0.5	0.5	16.226	C
6 - The Street	218	55	1420	651	0.335	218	256	0.5	0.5	8.316	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1078	269	210	1421	0.758	1116	1188	12.7	3.3	13.087	B
2 - Maudlin Lane	14	4	1312	514	0.028	14	14	0.0	0.0	7.210	A
3 - Clays Hill	538	134	968	773	0.695	583	358	13.7	2.4	22.839	C
4 - A283 North	780	195	574	1111	0.702	798	977	6.9	2.4	12.089	B
5 - Castle Lane	96	24	1345	449	0.214	97	27	0.5	0.3	10.263	B
6 - The Street	178	44	1219	772	0.231	179	223	0.5	0.3	6.078	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	903	226	175	1440	0.627	909	963	3.3	1.7	6.854	A
2 - Maudlin Lane	12	3	1073	646	0.019	12	11	0.0	0.0	5.676	A
3 - Clays Hill	450	113	792	872	0.516	456	293	2.4	1.1	8.744	A
4 - A283 North	653	163	451	1179	0.554	658	797	2.4	1.3	6.970	A
5 - Castle Lane	81	20	1087	580	0.139	81	22	0.3	0.2	7.220	A
6 - The Street	149	37	989	910	0.164	149	179	0.3	0.2	4.739	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5, 6	84.04	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	1 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A283 South		ONE HOUR	✓	1437	100.000
2 - Maudlin Lane		ONE HOUR	✓	16	100.000
3 - Clays Hill		ONE HOUR	✓	354	100.000
4 - A283 North		ONE HOUR	✓	1013	100.000
5 - Castle Lane		ONE HOUR	✓	56	100.000
6 - The Street		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	1	12	303	1058	55	8
	2 - Maudlin Lane	7	0	0	2	0	7
	3 - Clays Hill	234	2	0	26	3	89
	4 - A283 North	882	9	31	0	9	82
	5 - Castle Lane	24	0	5	8	0	19
	6 - The Street	17	13	77	113	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		1 - A283 South	2 - Maudlin Lane	3 - Clays Hill	4 - A283 North	5 - Castle Lane	6 - The Street
From	1 - A283 South	0	0	0	1	2	0
	2 - Maudlin Lane	0	0	0	0	0	0
	3 - Clays Hill	0	0	0	0	0	3
	4 - A283 North	2	0	3	0	0	1
	5 - Castle Lane	0	0	0	0	0	0
	6 - The Street	0	0	6	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A283 South	1.09	159.26	77.9	F	1319	1978
2 - Maudlin Lane	0.05	10.53	0.1	B	15	22
3 - Clays Hill	0.61	14.42	1.5	B	325	487
4 - A283 North	0.89	25.00	7.3	C	930	1394
5 - Castle Lane	0.15	10.40	0.2	B	51	77
6 - The Street	0.34	7.42	0.5	A	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1082	270	200	1504	0.719	1072	871	0.0	2.5	8.160	A
2 - Maudlin Lane	12	3	1245	617	0.020	12	27	0.0	0.0	5.954	A
3 - Clays Hill	267	67	946	822	0.324	265	311	0.0	0.5	6.435	A
4 - A283 North	763	191	310	1333	0.572	757	901	0.0	1.3	6.203	A
5 - Castle Lane	42	11	1011	644	0.066	42	57	0.0	0.1	5.979	A
6 - The Street	172	43	899	980	0.176	172	153	0.0	0.2	4.450	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1292	323	239	1481	0.872	1278	1043	2.5	6.0	16.660	C
2 - Maudlin Lane	14	4	1485	481	0.030	14	32	0.0	0.0	7.707	A
3 - Clays Hill	318	80	1129	725	0.439	317	371	0.5	0.8	8.806	A
4 - A283 North	911	228	371	1297	0.702	907	1074	1.3	2.3	9.129	A
5 - Castle Lane	50	13	1210	544	0.092	50	68	0.1	0.1	7.283	A
6 - The Street	206	51	1077	878	0.235	206	184	0.2	0.3	5.353	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1582	396	292	1450	1.091	1430	1265	6.0	43.9	73.433	F
2 - Maudlin Lane	18	4	1685	369	0.048	18	38	0.0	0.0	10.242	B
3 - Clays Hill	390	97	1277	645	0.604	387	425	0.8	1.5	13.777	B
4 - A283 North	1115	279	447	1253	0.890	1098	1217	2.3	6.7	21.138	C
5 - Castle Lane	62	15	1468	416	0.148	61	78	0.1	0.2	10.131	B
6 - The Street	252	63	1306	746	0.338	251	223	0.3	0.5	7.263	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1582	396	294	1450	1.091	1446	1280	43.9	77.9	159.258	F
2 - Maudlin Lane	18	4	1701	360	0.049	18	38	0.0	0.1	10.527	B
3 - Clays Hill	390	97	1290	639	0.610	390	429	1.5	1.5	14.421	B
4 - A283 North	1115	279	451	1251	0.891	1113	1229	6.7	7.3	24.998	C
5 - Castle Lane	62	15	1485	408	0.151	62	78	0.2	0.2	10.401	B
6 - The Street	252	63	1322	737	0.342	252	225	0.5	0.5	7.420	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1292	323	242	1480	0.873	1461	1066	77.9	35.6	142.500	F
2 - Maudlin Lane	14	4	1669	378	0.038	14	34	0.1	0.0	9.891	A
3 - Clays Hill	318	80	1272	648	0.491	320	411	1.5	1.0	11.067	B
4 - A283 North	911	228	383	1291	0.706	930	1210	7.3	2.5	10.480	B
5 - Castle Lane	50	13	1238	531	0.095	51	75	0.2	0.1	7.503	A
6 - The Street	206	51	1101	864	0.238	207	187	0.5	0.3	5.484	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A283 South	1082	270	202	1503	0.720	1214	882	35.6	2.7	18.870	C
2 - Maudlin Lane	12	3	1387	537	0.022	12	28	0.0	0.0	6.860	A
3 - Clays Hill	267	67	1058	762	0.350	268	341	1.0	0.5	7.312	A
4 - A283 North	763	191	320	1327	0.575	767	1006	2.5	1.4	6.479	A
5 - Castle Lane	42	11	1025	637	0.066	42	62	0.1	0.1	6.056	A
6 - The Street	172	43	911	973	0.177	173	156	0.3	0.2	4.502	A

APPENDIX 18.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 5 – A283 / A2037 ROUNDABOUT

18.1 ARCADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 5 (A2037).j9
Path: D:\5201 Shoreham
Report generation date: 12/01/2022 11:23:05

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 18.1
ARCADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
1 - A2037	3.9	18.87	0.81	C	20.87	C	1 % [3 - A283 North]	3.6	16.04	0.79	C	16.85	C	4 % [2 - A283 South]
2 - A283 South	4.8	12.10	0.83	B				9.2	21.06	0.91	C			
3 - A283 North	11.3	31.28	0.93	D				4.1	11.89	0.81	B			
Scenario 1 Total														
1 - A2037	4.7	22.10	0.84	C	27.05	D	-2 % [3 - A283 North]	4.6	20.16	0.83	C	20.74	C	2 % [2 - A283 South]
2 - A283 South	6.4	15.38	0.87	C				11.6	26.09	0.93	D			
3 - A283 North	15.9	42.44	0.96	E				5.0	14.20	0.84	B			
Scenario 2 Total														
1 - A2037	4.5	21.60	0.83	C	25.61	D	-1 % [3 - A283 North]	4.2	18.73	0.82	C	19.85	C	2 % [2 - A283 South]
2 - A283 South	5.8	14.24	0.86	B				11.2	25.29	0.93	D			
3 - A283 North	14.9	40.03	0.96	E				4.7	13.50	0.83	B			
Scenario 3 Total														
1 - A2037	4.3	20.51	0.82	C	24.40	C	-1 % [3 - A283 North]	4.2	18.40	0.82	C	19.57	C	3 % [2 - A283 South]
2 - A283 South	5.7	13.97	0.86	B				11.0	24.98	0.93	C			
3 - A283 North	13.9	37.76	0.95	E				4.6	13.29	0.83	B			
Scenario 4 Total														
1 - A2037	4.5	21.31	0.83	C	24.34	C	-1 % [3 - A283 North]	3.8	17.07	0.80	C	18.35	C	3 % [2 - A283 South]
2 - A283 South	5.3	13.15	0.85	B				10.3	23.37	0.92	C			
3 - A283 North	14.0	37.87	0.95	E				4.3	12.61	0.82	B			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	20.87	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	3 - A283 North

Arms

Arms

Arm	Name	Description
1	A2037	
2	A283 South	
3	A283 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A2037	3.40	8.80	16.3	14.8	32.0	21.0	
2 - A283 South	3.30	9.50	18.5	193.4	32.0	14.0	
3 - A283 North	3.60	8.60	14.8	38.0	32.0	17.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A2037	0.690	1849
2 - A283 South	0.767	2096
3 - A283 North	0.725	1940

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	713	100.000
2 - A283 South		ONE HOUR	✓	1345	100.000
3 - A283 North		ONE HOUR	✓	1265	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	474	239
	2 - A283 South	416	2	927
	3 - A283 North	248	1017	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.81	18.87	3.9	C	654	981
2 - A283 South	0.83	12.10	4.8	B	1234	1851
3 - A283 North	0.93	31.28	11.3	D	1161	1741

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	537	134	762	1221	0.440	534	497	0.0	0.8	5.219	A
2 - A283 South	1013	253	179	1840	0.550	1008	1117	0.0	1.2	4.300	A
3 - A283 North	952	238	313	1597	0.596	947	873	0.0	1.5	5.490	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	641	160	912	1115	0.575	639	595	0.8	1.3	7.517	A
2 - A283 South	1209	302	214	1813	0.667	1206	1337	1.2	2.0	5.902	A
3 - A283 North	1137	284	375	1552	0.733	1132	1045	1.5	2.6	8.479	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	785	196	1099	985	0.797	776	722	1.3	3.6	16.573	C
2 - A283 South	1481	370	260	1778	0.833	1470	1615	2.0	4.6	11.323	B
3 - A283 North	1393	348	457	1493	0.933	1364	1273	2.6	9.8	23.936	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	785	196	1117	972	0.808	784	730	3.6	3.9	18.872	C
2 - A283 South	1481	370	263	1776	0.834	1480	1638	4.6	4.8	12.100	B
3 - A283 North	1393	348	460	1491	0.934	1387	1283	9.8	11.3	31.281	D

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	641	160	943	1094	0.586	651	607	3.9	1.4	8.306	A
2 - A283 South	1209	302	218	1810	0.668	1220	1376	4.8	2.1	6.217	A
3 - A283 North	1137	284	379	1549	0.734	1171	1059	11.3	2.9	10.323	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	537	134	772	1214	0.442	539	502	1.4	0.8	5.356	A
2 - A283 South	1013	253	181	1839	0.551	1016	1130	2.1	1.2	4.392	A
3 - A283 North	952	238	316	1595	0.597	958	881	2.9	1.5	5.699	A

2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	16.85	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	4	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	761	100.000
2 - A283 South		ONE HOUR	✓	1511	100.000
3 - A283 North		ONE HOUR	✓	1149	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	472	284
	2 - A283 South	407	8	1096
	3 - A283 North	163	986	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	25	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.79	16.04	3.6	C	698	1047
2 - A283 South	0.91	21.06	9.2	C	1387	2080
3 - A283 North	0.81	11.89	4.1	B	1054	1582

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	573	143	745	1302	0.440	570	431	0.0	0.8	4.893	A
2 - A283 South	1138	284	216	1902	0.598	1132	1098	0.0	1.5	4.641	A
3 - A283 North	865	216	315	1673	0.517	861	1034	0.0	1.1	4.411	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	684	171	891	1201	0.570	682	515	0.8	1.3	6.915	A
2 - A283 South	1358	340	259	1869	0.727	1354	1314	1.5	2.6	6.927	A
3 - A283 North	1033	258	376	1628	0.635	1030	1237	1.1	1.7	5.999	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	838	209	1087	1065	0.787	829	626	1.3	3.4	14.777	B
2 - A283 South	1664	416	315	1826	0.911	1641	1601	2.6	8.4	17.547	C
3 - A283 North	1265	316	456	1570	0.806	1256	1499	1.7	3.9	11.181	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	838	209	1094	1060	0.790	837	632	3.4	3.6	16.038	C
2 - A283 South	1664	416	318	1824	0.912	1660	1613	8.4	9.2	21.064	C
3 - A283 North	1265	316	462	1566	0.808	1264	1517	3.9	4.1	11.890	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	684	171	902	1194	0.573	693	525	3.6	1.4	7.319	A
2 - A283 South	1358	340	263	1866	0.728	1384	1331	9.2	2.8	7.852	A
3 - A283 North	1033	258	385	1622	0.637	1042	1263	4.1	1.8	6.304	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	573	143	751	1298	0.441	575	435	1.4	0.8	4.996	A
2 - A283 South	1138	284	218	1900	0.599	1143	1108	2.8	1.5	4.784	A
3 - A283 North	865	216	318	1671	0.518	868	1043	1.8	1.1	4.500	A

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	27.05	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-2	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	725	100.000
2 - A283 South		ONE HOUR	✓	1409	100.000
3 - A283 North		ONE HOUR	✓	1294	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	486	239
	2 - A283 South	433	2	974
	3 - A283 North	248	1046	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.84	22.10	4.7	C	665	998
2 - A283 South	0.87	15.38	6.4	C	1293	1939
3 - A283 North	0.96	42.44	15.9	E	1187	1781

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	546	136	784	1207	0.452	543	510	0.0	0.8	5.389	A
2 - A283 South	1061	265	179	1845	0.575	1055	1148	0.0	1.3	4.529	A
3 - A283 North	974	244	326	1590	0.613	968	908	0.0	1.6	5.730	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	652	163	938	1100	0.593	649	610	0.8	1.4	7.949	A
2 - A283 South	1267	317	214	1818	0.697	1263	1373	1.3	2.2	6.447	A
3 - A283 North	1163	291	390	1544	0.753	1158	1087	1.6	2.9	9.188	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	798	200	1122	971	0.822	787	738	1.4	4.1	18.638	C
2 - A283 South	1551	388	260	1783	0.870	1536	1650	2.2	6.0	13.831	B
3 - A283 North	1425	356	474	1483	0.961	1385	1322	2.9	12.8	29.215	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	798	200	1144	955	0.835	796	747	4.1	4.7	22.098	C
2 - A283 South	1551	388	262	1781	0.871	1550	1677	6.0	6.4	15.379	C
3 - A283 North	1425	356	479	1480	0.963	1412	1334	12.8	15.9	42.441	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	652	163	983	1068	0.610	664	627	4.7	1.6	9.167	A
2 - A283 South	1267	317	219	1814	0.698	1283	1428	6.4	2.4	6.969	A
3 - A283 North	1163	291	396	1540	0.756	1214	1105	15.9	3.2	12.658	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	546	136	794	1200	0.455	549	515	1.6	0.8	5.553	A
2 - A283 South	1061	265	181	1843	0.575	1065	1162	2.4	1.4	4.647	A
3 - A283 North	974	244	329	1588	0.613	981	917	3.2	1.6	5.986	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	20.74	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	777	100.000
2 - A283 South		ONE HOUR	✓	1547	100.000
3 - A283 North		ONE HOUR	✓	1190	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	488	284
	2 - A283 South	416	8	1123
	3 - A283 North	163	1027	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	25	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.83	20.16	4.6	C	713	1069
2 - A283 South	0.93	26.09	11.6	D	1420	2129
3 - A283 North	0.84	14.20	5.0	B	1092	1638

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	585	146	775	1282	0.456	582	437	0.0	0.8	5.117	A
2 - A283 South	1165	291	216	1902	0.612	1158	1141	0.0	1.6	4.802	A
3 - A283 North	896	224	321	1669	0.537	891	1054	0.0	1.1	4.602	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	699	175	928	1176	0.594	696	523	0.8	1.4	7.461	A
2 - A283 South	1391	348	259	1870	0.744	1386	1365	1.6	2.8	7.361	A
3 - A283 North	1070	267	384	1623	0.659	1067	1260	1.1	1.9	6.435	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	855	214	1130	1036	0.826	844	633	1.4	4.3	17.804	C
2 - A283 South	1703	426	314	1828	0.932	1674	1660	2.8	10.2	20.383	C
3 - A283 North	1310	328	464	1565	0.837	1299	1524	1.9	4.7	13.002	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	855	214	1139	1030	0.831	854	641	4.3	4.6	20.161	C
2 - A283 South	1703	426	318	1825	0.933	1698	1675	10.2	11.6	26.087	D
3 - A283 North	1310	328	471	1560	0.840	1309	1545	4.7	5.0	14.204	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	699	175	941	1167	0.598	711	536	4.6	1.5	8.091	A
2 - A283 South	1391	348	264	1866	0.745	1425	1387	11.6	3.0	8.768	A
3 - A283 North	1070	267	395	1615	0.662	1082	1294	5.0	2.0	6.893	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	585	146	782	1277	0.458	588	442	1.5	0.9	5.239	A
2 - A283 South	1165	291	219	1901	0.613	1170	1151	3.0	1.6	4.969	A
3 - A283 North	896	224	325	1667	0.538	899	1064	2.0	1.2	4.712	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	25.61	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	723	100.000
2 - A283 South		ONE HOUR	✓	1390	100.000
3 - A283 North		ONE HOUR	✓	1290	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	484	239
	2 - A283 South	428	2	960
	3 - A283 North	248	1042	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.83	21.60	4.5	C	663	995
2 - A283 South	0.86	14.24	5.8	B	1275	1913
3 - A283 North	0.96	40.03	14.9	E	1184	1776

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	544	136	781	1209	0.450	541	506	0.0	0.8	5.363	A
2 - A283 South	1046	262	179	1843	0.568	1041	1143	0.0	1.3	4.459	A
3 - A283 North	971	243	322	1593	0.610	965	898	0.0	1.5	5.684	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	650	162	934	1102	0.590	648	606	0.8	1.4	7.880	A
2 - A283 South	1250	312	214	1816	0.688	1246	1368	1.3	2.2	6.275	A
3 - A283 North	1160	290	385	1547	0.750	1154	1075	1.5	2.9	9.049	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	796	199	1119	972	0.819	785	733	1.4	4.1	18.332	C
2 - A283 South	1530	383	260	1781	0.859	1517	1645	2.2	5.5	12.989	B
3 - A283 North	1420	355	469	1486	0.956	1383	1307	2.9	12.2	28.146	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	796	199	1141	957	0.832	794	742	4.1	4.5	21.601	C
2 - A283 South	1530	383	263	1779	0.860	1529	1672	5.5	5.8	14.241	B
3 - A283 North	1420	355	473	1484	0.957	1409	1319	12.2	14.9	40.032	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	650	162	976	1072	0.606	662	621	4.5	1.6	9.012	A
2 - A283 South	1250	312	219	1813	0.689	1264	1420	5.8	2.3	6.721	A
3 - A283 North	1160	290	391	1543	0.752	1207	1092	14.9	3.2	12.102	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	544	136	791	1202	0.453	547	511	1.6	0.8	5.523	A
2 - A283 South	1046	262	181	1842	0.568	1050	1157	2.3	1.3	4.568	A
3 - A283 North	971	243	325	1591	0.611	977	906	3.2	1.6	5.929	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	19.85	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	772	100.000
2 - A283 South		ONE HOUR	✓	1542	100.000
3 - A283 North		ONE HOUR	✓	1178	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	483	284
	2 - A283 South	415	8	1119
	3 - A283 North	163	1015	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	25	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.82	18.73	4.2	C	708	1063
2 - A283 South	0.93	25.29	11.2	D	1415	2122
3 - A283 North	0.83	13.50	4.7	B	1081	1621

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	581	145	766	1288	0.451	578	437	0.0	0.8	5.046	A
2 - A283 South	1161	290	216	1902	0.610	1155	1128	0.0	1.5	4.778	A
3 - A283 North	887	222	321	1669	0.531	882	1051	0.0	1.1	4.550	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	694	174	917	1183	0.586	692	522	0.8	1.4	7.287	A
2 - A283 South	1386	347	259	1870	0.741	1381	1350	1.5	2.8	7.297	A
3 - A283 North	1059	265	383	1624	0.652	1056	1257	1.1	1.8	6.311	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	850	212	1117	1045	0.814	840	633	1.4	4.0	16.789	C
2 - A283 South	1698	424	314	1827	0.929	1669	1642	2.8	9.9	19.963	C
3 - A283 North	1297	324	463	1565	0.829	1286	1520	1.8	4.5	12.461	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	850	212	1126	1039	0.818	849	640	4.0	4.2	18.732	C
2 - A283 South	1698	424	318	1825	0.930	1693	1657	9.9	11.2	25.292	D
3 - A283 North	1297	324	470	1561	0.831	1296	1541	4.5	4.7	13.503	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	694	174	929	1175	0.591	705	535	4.2	1.5	7.837	A
2 - A283 South	1386	347	264	1866	0.743	1419	1370	11.2	3.0	8.617	A
3 - A283 North	1059	265	394	1616	0.655	1070	1289	4.7	1.9	6.722	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	581	145	773	1283	0.453	584	441	1.5	0.8	5.163	A
2 - A283 South	1161	290	219	1901	0.611	1166	1138	3.0	1.6	4.942	A
3 - A283 North	887	222	324	1667	0.532	890	1061	1.9	1.1	4.653	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	24.40	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	718	100.000
2 - A283 South		ONE HOUR	✓	1385	100.000
3 - A283 North		ONE HOUR	✓	1283	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	479	239
	2 - A283 South	427	2	956
	3 - A283 North	248	1035	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.82	20.51	4.3	C	659	988
2 - A283 South	0.86	13.97	5.7	B	1271	1906
3 - A283 North	0.95	37.76	13.9	E	1177	1766

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	541	135	776	1212	0.446	537	505	0.0	0.8	5.311	A
2 - A283 South	1043	261	179	1843	0.566	1038	1134	0.0	1.3	4.441	A
3 - A283 North	966	241	321	1593	0.607	960	895	0.0	1.5	5.639	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	645	161	928	1106	0.584	643	605	0.8	1.4	7.746	A
2 - A283 South	1245	311	214	1816	0.686	1242	1357	1.3	2.1	6.230	A
3 - A283 North	1153	288	385	1547	0.746	1148	1071	1.5	2.8	8.910	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	791	198	1114	976	0.810	781	732	1.4	3.9	17.630	C
2 - A283 South	1525	381	260	1781	0.856	1512	1634	2.1	5.4	12.787	B
3 - A283 North	1413	353	468	1487	0.950	1378	1303	2.8	11.5	27.101	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	791	198	1134	961	0.822	789	741	3.9	4.3	20.515	C
2 - A283 South	1525	381	263	1779	0.857	1524	1660	5.4	5.7	13.971	B
3 - A283 North	1413	353	472	1484	0.952	1403	1314	11.5	13.9	37.760	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	645	161	967	1078	0.599	657	619	4.3	1.5	8.756	A
2 - A283 South	1245	311	219	1813	0.687	1259	1405	5.7	2.2	6.658	A
3 - A283 North	1153	288	390	1543	0.747	1197	1088	13.9	3.1	11.613	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	541	135	786	1205	0.448	543	510	1.5	0.8	5.462	A
2 - A283 South	1043	261	181	1842	0.566	1046	1148	2.2	1.3	4.549	A
3 - A283 North	966	241	324	1591	0.607	972	903	3.1	1.6	5.877	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	19.57	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	770	100.000
2 - A283 South		ONE HOUR	✓	1540	100.000
3 - A283 North		ONE HOUR	✓	1176	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	481	284
	2 - A283 South	412	8	1120
	3 - A283 North	163	1013	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	25	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.82	18.40	4.2	C	707	1060
2 - A283 South	0.93	24.98	11.0	C	1413	2120
3 - A283 North	0.83	13.29	4.6	B	1079	1619

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	580	145	765	1289	0.450	576	434	0.0	0.8	5.031	A
2 - A283 South	1159	290	216	1902	0.610	1153	1125	0.0	1.5	4.768	A
3 - A283 North	885	221	318	1671	0.530	881	1051	0.0	1.1	4.532	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	692	173	915	1184	0.584	690	520	0.8	1.4	7.246	A
2 - A283 South	1384	346	259	1870	0.741	1380	1346	1.5	2.8	7.271	A
3 - A283 North	1057	264	381	1625	0.650	1054	1258	1.1	1.8	6.273	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	848	212	1115	1046	0.811	838	630	1.4	3.9	16.549	C
2 - A283 South	1696	424	314	1827	0.928	1668	1638	2.8	9.8	19.795	C
3 - A283 North	1295	324	460	1567	0.826	1284	1522	1.8	4.4	12.291	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	848	212	1123	1040	0.815	847	637	3.9	4.2	18.399	C
2 - A283 South	1696	424	318	1825	0.929	1690	1652	9.8	11.0	24.981	C
3 - A283 North	1295	324	467	1563	0.828	1294	1542	4.4	4.6	13.286	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	692	173	927	1176	0.589	703	532	4.2	1.5	7.774	A
2 - A283 South	1384	346	264	1866	0.742	1417	1366	11.0	3.0	8.562	A
3 - A283 North	1057	264	391	1618	0.653	1068	1290	4.6	1.9	6.671	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	580	145	771	1284	0.451	582	439	1.5	0.8	5.144	A
2 - A283 South	1159	290	219	1900	0.610	1165	1135	3.0	1.6	4.931	A
3 - A283 North	885	221	321	1669	0.531	888	1062	1.9	1.1	4.634	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	24.34	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	722	100.000
2 - A283 South		ONE HOUR	✓	1369	100.000
3 - A283 North		ONE HOUR	✓	1287	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	483	239
	2 - A283 South	422	2	945
	3 - A283 North	248	1039	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	5	6
	2 - A283 South	6	0	6
	3 - A283 North	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.83	21.31	4.5	C	663	994
2 - A283 South	0.85	13.15	5.3	B	1256	1884
3 - A283 North	0.95	37.87	14.0	E	1181	1771

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	544	136	779	1211	0.449	540	502	0.0	0.8	5.346	A
2 - A283 South	1031	258	179	1842	0.560	1026	1140	0.0	1.3	4.385	A
3 - A283 North	969	242	318	1595	0.607	963	887	0.0	1.5	5.638	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	649	162	932	1104	0.588	647	600	0.8	1.4	7.839	A
2 - A283 South	1231	308	214	1815	0.678	1227	1364	1.3	2.1	6.094	A
3 - A283 North	1157	289	380	1550	0.746	1152	1061	1.5	2.8	8.917	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	795	199	1118	973	0.817	784	727	1.4	4.0	18.165	C
2 - A283 South	1507	377	260	1780	0.847	1495	1643	2.1	5.1	12.156	B
3 - A283 North	1417	354	463	1490	0.951	1382	1292	2.8	11.6	27.159	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	795	199	1138	959	0.829	793	736	4.0	4.5	21.313	C
2 - A283 South	1507	377	263	1778	0.848	1506	1669	5.1	5.3	13.154	B
3 - A283 North	1417	354	467	1488	0.952	1407	1302	11.6	14.0	37.868	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	649	162	971	1076	0.603	661	615	4.5	1.6	8.908	A
2 - A283 South	1231	308	219	1811	0.679	1243	1413	5.3	2.2	6.472	A
3 - A283 North	1157	289	385	1547	0.748	1201	1077	14.0	3.1	11.634	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	544	136	789	1204	0.452	546	507	1.6	0.8	5.500	A
2 - A283 South	1031	258	181	1840	0.560	1034	1154	2.2	1.3	4.485	A
3 - A283 North	969	242	320	1593	0.608	975	895	3.1	1.6	5.876	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	4 - A283/A2037	Standard Roundabout	1, 2, 3	18.35	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A2037		ONE HOUR	✓	765	100.000
2 - A283 South		ONE HOUR	✓	1529	100.000
3 - A283 North		ONE HOUR	✓	1162	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	5	476	284
	2 - A283 South	412	8	1109
	3 - A283 North	163	999	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2037	2 - A283 South	3 - A283 North
From	1 - A2037	0	2	1
	2 - A283 South	2	25	1
	3 - A283 North	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A2037	0.80	17.07	3.8	C	702	1053
2 - A283 South	0.92	23.37	10.3	C	1403	2105
3 - A283 North	0.82	12.61	4.3	B	1066	1599

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	576	144	754	1296	0.444	573	434	0.0	0.8	4.956	A
2 - A283 South	1151	288	216	1902	0.605	1145	1111	0.0	1.5	4.719	A
3 - A283 North	875	219	318	1670	0.524	870	1043	0.0	1.1	4.476	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	688	172	903	1193	0.577	686	520	0.8	1.3	7.064	A
2 - A283 South	1375	344	259	1869	0.735	1370	1329	1.5	2.7	7.137	A
3 - A283 North	1045	261	381	1625	0.643	1042	1248	1.1	1.8	6.146	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	842	211	1100	1056	0.798	833	630	1.3	3.6	15.562	C
2 - A283 South	1683	421	315	1827	0.922	1657	1619	2.7	9.2	18.901	C
3 - A283 North	1279	320	461	1567	0.817	1270	1511	1.8	4.2	11.758	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	842	211	1108	1050	0.802	841	637	3.6	3.8	17.070	C
2 - A283 South	1683	421	318	1824	0.923	1679	1632	9.2	10.3	23.371	C
3 - A283 North	1279	320	467	1562	0.819	1279	1530	4.2	4.3	12.611	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	688	172	914	1185	0.580	697	531	3.8	1.4	7.523	A
2 - A283 South	1375	344	263	1866	0.737	1404	1348	10.3	2.9	8.268	A
3 - A283 North	1045	261	390	1618	0.646	1055	1277	4.3	1.9	6.499	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A2037	576	144	761	1292	0.446	578	439	1.4	0.8	5.063	A
2 - A283 South	1151	288	218	1900	0.606	1156	1121	2.9	1.6	4.872	A
3 - A283 North	875	219	321	1668	0.524	878	1053	1.9	1.1	4.571	A

APPENDIX 19.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 8 – A283 / A27 SLIPS ROUNDABOUT

19.1 ARCADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)
19.2 Proposed Junction Improvements
19.3 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
19.4 DMRB CD 116 Compliance Checks

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 8 (A27 Slips) Existing.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 8 (A27 Slips)
Report generation date: 20/01/2022 12:19:35

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 19.1
ARCADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
1 - A27 Westbound Slips	1.4	4.96	0.59	A	56.19	F	-13 % [2 - A283 South]	18.5	39.78	0.97	E	58.86	F	-13 % [2 - A283 South]
2 - A283 South	58.1	171.06	1.09	F				58.3	187.49	1.11	F			
3 - A283 North	9.5	24.56	0.92	C				4.2	10.89	0.81	B			
4 - A27 Eastbound Slips	0.5	3.42	0.34	A				0.4	3.22	0.31	A			
Scenario 1 Total														
1 - A27 Westbound Slips	1.8	5.94	0.65	A	122.88	F	-19 % [2 - A283 South]	55.4	99.08	1.05	F	114.26	F	-18 % [2 - A283 South]
2 - A283 South	114.4	362.70	1.22	F				92.3	335.19	1.19	F			
3 - A283 North	36.8	75.56	1.02	F				12.9	29.55	0.94	D			
4 - A27 Eastbound Slips	0.6	3.83	0.39	A				0.6	3.68	0.36	A			
Scenario 2 Total														
1 - A27 Westbound Slips	1.8	5.85	0.64	A	111.53	F	-18 % [2 - A283 South]	44.1	82.09	1.03	F	98.06	F	-17 % [2 - A283 South]
2 - A283 South	110.3	345.03	1.21	F				84.6	288.15	1.18	F			
3 - A283 North	24.8	55.34	0.99	F				11.6	27.01	0.93	D			
4 - A27 Eastbound Slips	0.6	3.79	0.39	A				0.5	3.61	0.35	A			
Scenario 3 Total														
1 - A27 Westbound Slips	1.6	5.36	0.62	A	76.74	F	-15 % [2 - A283 South]	37.7	71.93	1.02	F	89.62	F	-16 % [2 - A283 South]
2 - A283 South	78.0	226.58	1.14	F				82.7	273.84	1.17	F			
3 - A283 North	18.4	43.78	0.97	E				7.6	18.23	0.89	C			
4 - A27 Eastbound Slips	0.6	3.59	0.36	A				0.5	3.47	0.34	A			
Scenario 4 Total														
1 - A27 Westbound Slips	1.7	5.75	0.64	A	103.07	F	-18 % [2 - A283 South]	28.1	56.81	1.00	F	74.61	F	-15 % [2 - A283 South]
2 - A283 South	109.2	340.09	1.21	F				71.1	225.94	1.14	F			
3 - A283 North	13.0	32.02	0.94	D				8.5	20.30	0.90	C			
4 - A27 Eastbound Slips	0.6	3.71	0.39	A				0.5	3.44	0.33	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	56.19	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	2 - A283 South

Arms

Arms

Arm	Name	Description
1	A27 Westbound Slips	
2	A283 South	
3	A283 North	
4	A27 Eastbound Slips	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 Westbound Slips	6.80	7.40	12.2	46.9	127.6	19.0	
2 - A283 South	4.00	9.70	4.1	32.1	127.6	48.0	
3 - A283 North	4.90	7.00	11.5	88.0	127.6	13.0	
4 - A27 Eastbound Slips	6.40	6.60	11.5	72.0	127.6	23.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 Westbound Slips	0.552	2364
2 - A283 South	0.404	1462
3 - A283 North	0.517	2069
4 - A27 Eastbound Slips	0.516	2116

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	949	100.000
2 - A283 South		ONE HOUR	✓	1010	100.000
3 - A283 North		ONE HOUR	✓	1348	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	483	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	569	76
	2 - A283 South	196	0	377	437
	3 - A283 North	266	378	0	704
	4 - A27 Eastbound Slips	0	244	239	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	4	4	0	4
	4 - A27 Eastbound Slips	0	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.59	4.96	1.4	A	871	1306
2 - A283 South	1.09	171.06	58.1	F	927	1390
3 - A283 North	0.92	24.56	9.5	C	1237	1855
4 - A27 Eastbound Slips	0.34	3.42	0.5	A	443	665

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	714	179	646	1938	0.369	712	345	0.0	0.6	2.933	A
2 - A283 South	760	190	663	1140	0.667	753	694	0.0	1.9	9.115	A
3 - A283 North	1015	254	529	1716	0.591	1009	887	0.0	1.4	5.053	A
4 - A27 Eastbound Slips	364	91	628	1727	0.211	363	910	0.0	0.3	2.639	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	853	213	772	1867	0.457	852	412	0.6	0.8	3.543	A
2 - A283 South	908	227	794	1088	0.834	898	831	1.9	4.5	17.989	C
3 - A283 North	1212	303	631	1663	0.729	1207	1061	1.4	2.6	7.811	A
4 - A27 Eastbound Slips	434	109	751	1663	0.261	434	1087	0.3	0.4	2.929	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1045	261	941	1774	0.589	1043	482	0.8	1.4	4.906	A
2 - A283 South	1112	278	971	1017	1.093	997	1012	4.5	33.2	81.120	F
3 - A283 North	1484	371	709	1623	0.914	1461	1260	2.6	8.5	19.825	C
4 - A27 Eastbound Slips	532	133	891	1589	0.335	531	1278	0.4	0.5	3.400	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1045	261	947	1771	0.590	1045	489	1.4	1.4	4.959	A
2 - A283 South	1112	278	973	1016	1.094	1012	1018	33.2	58.1	171.058	F
3 - A283 North	1484	371	718	1618	0.917	1480	1268	8.5	9.5	24.559	C
4 - A27 Eastbound Slips	532	133	904	1583	0.336	532	1295	0.5	0.5	3.423	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	853	213	782	1862	0.458	855	452	1.4	0.9	3.586	A
2 - A283 South	908	227	797	1087	0.835	1069	841	58.1	17.9	132.565	F
3 - A283 North	1212	303	738	1608	0.754	1237	1127	9.5	3.2	10.326	B
4 - A27 Eastbound Slips	434	109	798	1638	0.265	435	1177	0.5	0.4	2.995	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	714	179	650	1935	0.369	716	361	0.9	0.6	2.954	A
2 - A283 South	760	190	666	1139	0.668	824	700	17.9	2.1	13.728	B
3 - A283 North	1015	254	574	1693	0.599	1022	917	3.2	1.5	5.415	A
4 - A27 Eastbound Slips	364	91	648	1716	0.212	364	947	0.4	0.3	2.662	A

2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	58.86	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1599	100.000
2 - A283 South		ONE HOUR	✓	922	100.000
3 - A283 North		ONE HOUR	✓	1293	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	456	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	880	64
	2 - A283 South	202	0	447	273
	3 - A283 North	238	402	0	653
	4 - A27 Eastbound Slips	0	189	267	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	2	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.97	39.78	18.5	E	1467	2201
2 - A283 South	1.11	187.49	58.3	F	846	1269
3 - A283 North	0.81	10.89	4.2	B	1186	1780
4 - A27 Eastbound Slips	0.31	3.22	0.4	A	418	628

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1204	301	644	1984	0.607	1198	329	0.0	1.5	4.547	A
2 - A283 South	694	174	908	1082	0.642	687	934	0.0	1.7	8.974	A
3 - A283 North	973	243	402	1822	0.534	969	1193	0.0	1.1	4.197	A
4 - A27 Eastbound Slips	343	86	630	1763	0.195	342	741	0.0	0.2	2.533	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1437	359	770	1913	0.751	1432	393	1.5	2.9	7.390	A
2 - A283 South	829	207	1085	1010	0.821	819	1117	1.7	4.1	18.016	C
3 - A283 North	1162	291	479	1783	0.652	1160	1425	1.1	1.8	5.750	A
4 - A27 Eastbound Slips	410	102	753	1699	0.241	410	886	0.2	0.3	2.792	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1761	440	941	1818	0.968	1713	458	2.9	14.8	26.773	D
2 - A283 South	1015	254	1305	922	1.101	903	1349	4.1	32.1	86.150	F
3 - A283 North	1424	356	534	1755	0.811	1415	1674	1.8	4.1	10.323	B
4 - A27 Eastbound Slips	502	126	898	1624	0.309	502	1050	0.3	0.4	3.206	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1761	440	944	1817	0.969	1746	461	14.8	18.5	39.776	E
2 - A283 South	1015	254	1324	914	1.111	911	1366	32.1	58.3	187.493	F
3 - A283 North	1424	356	539	1752	0.812	1423	1696	4.1	4.2	10.892	B
4 - A27 Eastbound Slips	502	126	904	1621	0.310	502	1058	0.4	0.4	3.217	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1437	359	774	1911	0.752	1499	430	18.5	3.1	10.007	B
2 - A283 South	829	207	1125	994	0.834	977	1148	58.3	21.2	150.473	F
3 - A283 North	1162	291	563	1740	0.668	1171	1539	4.2	2.1	6.424	A
4 - A27 Eastbound Slips	410	102	794	1678	0.244	410	941	0.4	0.3	2.842	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1204	301	647	1981	0.608	1210	349	3.1	1.6	4.706	A
2 - A283 South	694	174	916	1078	0.644	771	942	21.2	1.9	14.859	B
3 - A283 North	973	243	446	1800	0.541	977	1241	2.1	1.2	4.392	A
4 - A27 Eastbound Slips	343	86	653	1751	0.196	344	770	0.3	0.2	2.557	A

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	122.88	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-19	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1013	100.000
2 - A283 South		ONE HOUR	✓	1063	100.000
3 - A283 North		ONE HOUR	✓	1532	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	555	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	633	76
	2 - A283 South	196	0	430	437
	3 - A283 North	345	407	0	780
	4 - A27 Eastbound Slips	0	244	311	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.65	5.94	1.8	A	930	1394
2 - A283 South	1.22	362.70	114.4	F	975	1463
3 - A283 North	1.02	75.56	36.8	F	1406	2109
4 - A27 Eastbound Slips	0.39	3.83	0.6	A	509	764

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	763	191	721	1901	0.401	760	404	0.0	0.7	3.149	A
2 - A283 South	800	200	765	1103	0.726	790	715	0.0	2.5	11.182	B
3 - A283 North	1153	288	528	1725	0.669	1145	1028	0.0	2.0	6.136	A
4 - A27 Eastbound Slips	418	104	708	1693	0.247	417	965	0.0	0.3	2.817	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	911	228	862	1823	0.500	909	480	0.7	1.0	3.935	A
2 - A283 South	956	239	916	1043	0.916	934	855	2.5	7.9	28.693	D
3 - A283 North	1377	344	625	1674	0.823	1368	1225	2.0	4.3	11.407	B
4 - A27 Eastbound Slips	499	125	844	1622	0.308	498	1149	0.3	0.4	3.200	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1115	279	1037	1726	0.646	1112	538	1.0	1.8	5.836	A
2 - A283 South	1170	293	1120	961	1.218	955	1029	7.9	61.7	143.040	F
3 - A283 North	1687	422	652	1660	1.016	1607	1423	4.3	24.3	42.052	E
4 - A27 Eastbound Slips	611	153	965	1559	0.392	610	1294	0.4	0.6	3.789	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1115	279	1046	1721	0.648	1115	546	1.8	1.8	5.941	A
2 - A283 South	1170	293	1123	960	1.219	959	1038	61.7	114.4	331.842	F
3 - A283 North	1687	422	655	1658	1.017	1637	1427	24.3	36.8	75.564	F
4 - A27 Eastbound Slips	611	153	980	1551	0.394	611	1312	0.6	0.6	3.827	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	911	228	898	1802	0.505	914	528	1.8	1.0	4.065	A
2 - A283 South	956	239	920	1041	0.918	1032	893	114.4	95.3	362.699	F
3 - A283 North	1377	344	683	1644	0.838	1501	1269	36.8	5.9	36.638	E
4 - A27 Eastbound Slips	499	125	927	1579	0.316	500	1257	0.6	0.5	3.339	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	763	191	728	1897	0.402	764	464	1.0	0.7	3.184	A
2 - A283 South	800	200	769	1101	0.727	1090	723	95.3	22.9	199.074	F
3 - A283 North	1153	288	706	1632	0.707	1167	1153	5.9	2.5	7.961	A
4 - A27 Eastbound Slips	418	104	774	1659	0.252	418	1099	0.5	0.3	2.902	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	114.26	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1661	100.000
2 - A283 South		ONE HOUR	✓	956	100.000
3 - A283 North		ONE HOUR	✓	1519	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	509	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	942	64
	2 - A283 South	202	0	481	273
	3 - A283 North	342	464	0	713
	4 - A27 Eastbound Slips	0	189	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	1.05	99.08	55.4	F	1524	2286
2 - A283 South	1.19	335.19	92.3	F	877	1316
3 - A283 North	0.94	29.55	12.9	D	1394	2091
4 - A27 Eastbound Slips	0.36	3.68	0.6	A	467	701

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1250	313	729	1937	0.645	1243	406	0.0	1.8	5.135	A
2 - A283 South	720	180	993	1048	0.687	711	979	0.0	2.1	10.452	B
3 - A283 North	1144	286	401	1828	0.626	1137	1303	0.0	1.6	5.162	A
4 - A27 Eastbound Slips	383	96	754	1702	0.225	382	785	0.0	0.3	2.724	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1493	373	873	1858	0.804	1485	484	1.8	3.9	9.436	A
2 - A283 South	859	215	1187	970	0.886	843	1171	2.1	6.2	25.578	D
3 - A283 North	1366	341	476	1790	0.763	1360	1554	1.6	3.1	8.261	A
4 - A27 Eastbound Slips	458	114	900	1626	0.281	457	936	0.3	0.4	3.079	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1829	457	1061	1754	1.043	1713	555	3.9	32.9	48.400	E
2 - A283 South	1053	263	1389	888	1.185	880	1384	6.2	49.4	126.918	F
3 - A283 North	1672	418	503	1776	0.942	1640	1766	3.1	11.1	22.574	C
4 - A27 Eastbound Slips	560	140	1056	1545	0.363	560	1087	0.4	0.6	3.651	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1829	457	1069	1749	1.046	1739	561	32.9	55.4	99.079	F
2 - A283 South	1053	263	1405	882	1.193	881	1402	49.4	92.3	296.102	F
3 - A283 North	1672	418	505	1775	0.942	1666	1782	11.1	12.9	29.550	D
4 - A27 Eastbound Slips	560	140	1070	1538	0.364	560	1100	0.6	0.6	3.681	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1493	373	887	1850	0.807	1696	508	55.4	4.7	43.186	E
2 - A283 South	859	215	1315	918	0.936	908	1268	92.3	80.1	335.188	F
3 - A283 North	1366	341	517	1769	0.772	1403	1707	12.9	3.5	10.762	B
4 - A27 Eastbound Slips	458	114	936	1607	0.285	458	983	0.6	0.4	3.136	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1250	313	735	1934	0.646	1262	476	4.7	1.9	5.439	A
2 - A283 South	720	180	1005	1043	0.690	1027	991	80.1	3.4	150.730	F
3 - A283 North	1144	286	559	1747	0.655	1150	1473	3.5	1.9	6.093	A
4 - A27 Eastbound Slips	383	96	827	1664	0.230	384	882	0.4	0.3	2.813	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	111.53	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1006	100.000
2 - A283 South		ONE HOUR	✓	1060	100.000
3 - A283 North		ONE HOUR	✓	1489	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	551	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	626	76
	2 - A283 South	196	0	427	437
	3 - A283 North	330	401	0	758
	4 - A27 Eastbound Slips	0	244	307	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.64	5.85	1.8	A	923	1385
2 - A283 South	1.21	345.03	110.3	F	973	1459
3 - A283 North	0.99	55.34	24.8	F	1366	2050
4 - A27 Eastbound Slips	0.39	3.79	0.6	A	506	758

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	757	189	713	1904	0.398	755	393	0.0	0.7	3.125	A
2 - A283 South	798	200	757	1106	0.722	788	711	0.0	2.5	11.010	B
3 - A283 North	1121	280	528	1723	0.651	1114	1018	0.0	1.8	5.843	A
4 - A27 Eastbound Slips	415	104	692	1701	0.244	414	949	0.0	0.3	2.794	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	904	226	853	1827	0.495	903	467	0.7	1.0	3.890	A
2 - A283 South	953	238	906	1047	0.911	933	850	2.5	7.5	27.668	D
3 - A283 North	1339	335	625	1672	0.800	1331	1213	1.8	3.8	10.305	B
4 - A27 Eastbound Slips	495	124	826	1631	0.304	495	1130	0.3	0.4	3.166	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1108	277	1032	1728	0.641	1104	528	1.0	1.8	5.743	A
2 - A283 South	1167	292	1108	966	1.208	959	1028	7.5	59.5	137.853	F
3 - A283 North	1639	410	656	1656	0.990	1582	1411	3.8	18.2	34.346	D
4 - A27 Eastbound Slips	607	152	954	1564	0.388	606	1284	0.4	0.6	3.752	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1108	277	1041	1723	0.643	1108	536	1.8	1.8	5.846	A
2 - A283 South	1167	292	1111	965	1.210	964	1038	59.5	110.3	319.177	F
3 - A283 North	1639	410	659	1655	0.991	1613	1416	18.2	24.8	55.336	F
4 - A27 Eastbound Slips	607	152	970	1556	0.390	607	1302	0.6	0.6	3.791	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	904	226	878	1813	0.499	907	506	1.8	1.0	3.989	A
2 - A283 South	953	238	910	1045	0.912	1036	876	110.3	89.6	345.027	F
3 - A283 North	1339	335	687	1640	0.816	1418	1258	24.8	4.8	20.969	C
4 - A27 Eastbound Slips	495	124	888	1599	0.310	496	1218	0.6	0.5	3.266	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	757	189	720	1901	0.398	759	453	1.0	0.7	3.155	A
2 - A283 South	798	200	761	1104	0.723	1092	718	89.6	16.1	178.708	F
3 - A283 North	1121	280	710	1628	0.688	1131	1144	4.8	2.3	7.384	A
4 - A27 Eastbound Slips	415	104	757	1667	0.249	415	1083	0.5	0.3	2.877	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	98.06	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1643	100.000
2 - A283 South		ONE HOUR	✓	950	100.000
3 - A283 North		ONE HOUR	✓	1502	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	495	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	924	64
	2 - A283 South	202	0	475	273
	3 - A283 North	337	460	0	705
	4 - A27 Eastbound Slips	0	189	306	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	1.03	82.09	44.1	F	1508	2261
2 - A283 South	1.18	288.15	84.6	F	872	1308
3 - A283 North	0.93	27.01	11.6	D	1378	2067
4 - A27 Eastbound Slips	0.35	3.61	0.5	A	454	681

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1237	309	716	1945	0.636	1230	403	0.0	1.7	4.991	A
2 - A283 South	715	179	969	1057	0.676	707	977	0.0	2.0	10.064	B
3 - A283 North	1131	283	401	1828	0.619	1124	1275	0.0	1.6	5.075	A
4 - A27 Eastbound Slips	373	93	747	1705	0.219	372	779	0.0	0.3	2.697	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1477	369	856	1867	0.791	1469	480	1.7	3.6	8.894	A
2 - A283 South	854	214	1158	981	0.870	840	1167	2.0	5.6	23.380	C
3 - A283 North	1350	338	477	1789	0.755	1345	1521	1.6	3.0	8.009	A
4 - A27 Eastbound Slips	445	111	892	1630	0.273	445	930	0.3	0.4	3.038	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1809	452	1042	1764	1.026	1713	553	3.6	27.6	42.548	E
2 - A283 South	1046	261	1367	897	1.166	887	1388	5.6	45.3	116.608	F
3 - A283 North	1654	413	510	1772	0.933	1625	1743	3.0	10.2	21.215	C
4 - A27 Eastbound Slips	545	136	1051	1548	0.352	544	1084	0.4	0.5	3.587	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1809	452	1050	1759	1.028	1743	559	27.6	44.1	82.091	F
2 - A283 South	1046	261	1385	890	1.175	889	1408	45.3	84.6	269.631	F
3 - A283 North	1654	413	512	1771	0.934	1648	1761	10.2	11.6	27.015	D
4 - A27 Eastbound Slips	545	136	1064	1541	0.354	545	1097	0.5	0.5	3.613	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1477	369	869	1860	0.794	1637	508	44.1	4.2	27.035	D
2 - A283 South	854	214	1260	940	0.908	929	1246	84.6	65.8	288.150	F
3 - A283 North	1350	338	528	1762	0.766	1383	1661	11.6	3.4	10.251	B
4 - A27 Eastbound Slips	445	111	932	1609	0.277	446	980	0.5	0.4	3.097	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1237	309	721	1942	0.637	1246	461	4.2	1.8	5.247	A
2 - A283 South	715	179	980	1053	0.679	969	988	65.8	2.4	99.438	F
3 - A283 North	1131	283	533	1760	0.642	1137	1416	3.4	1.8	5.835	A
4 - A27 Eastbound Slips	373	93	809	1673	0.223	373	861	0.4	0.3	2.772	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	76.74	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	980	100.000
2 - A283 South		ONE HOUR	✓	1026	100.000
3 - A283 North		ONE HOUR	✓	1442	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	600	76
	2 - A283 South	196	0	393	437
	3 - A283 North	303	390	0	749
	4 - A27 Eastbound Slips	0	244	268	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	4	4	0	4
	4 - A27 Eastbound Slips	0	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.62	5.36	1.6	A	899	1349
2 - A283 South	1.14	226.58	78.0	F	941	1412
3 - A283 North	0.97	43.78	18.4	E	1323	1985
4 - A27 Eastbound Slips	0.36	3.59	0.6	A	470	705

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	738	184	676	1923	0.384	735	373	0.0	0.6	3.024	A
2 - A283 South	772	193	708	1123	0.688	764	703	0.0	2.1	9.795	A
3 - A283 North	1086	271	528	1721	0.631	1079	944	0.0	1.7	5.554	A
4 - A27 Eastbound Slips	385	96	664	1711	0.225	384	943	0.0	0.3	2.710	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	881	220	809	1850	0.476	880	445	0.6	0.9	3.707	A
2 - A283 South	922	231	848	1068	0.864	909	841	2.1	5.4	21.099	C
3 - A283 North	1296	324	629	1668	0.777	1290	1128	1.7	3.3	9.347	A
4 - A27 Eastbound Slips	460	115	793	1644	0.280	460	1125	0.3	0.4	3.040	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1079	270	980	1754	0.615	1076	511	0.9	1.6	5.287	A
2 - A283 South	1130	282	1037	992	1.138	979	1020	5.4	43.0	101.683	F
3 - A283 North	1588	397	688	1638	0.969	1543	1329	3.3	14.5	29.375	D
4 - A27 Eastbound Slips	564	141	929	1574	0.358	563	1302	0.4	0.6	3.560	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1079	270	989	1750	0.617	1079	519	1.6	1.6	5.364	A
2 - A283 South	1130	282	1039	991	1.139	990	1028	43.0	78.0	226.577	F
3 - A283 North	1588	397	694	1635	0.971	1572	1335	14.5	18.4	43.780	E
4 - A27 Eastbound Slips	564	141	944	1566	0.360	564	1322	0.6	0.6	3.592	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	881	220	827	1839	0.479	884	486	1.6	0.9	3.778	A
2 - A283 South	922	231	851	1067	0.865	1053	860	78.0	45.3	212.124	F
3 - A283 North	1296	324	718	1622	0.799	1353	1186	18.4	4.2	15.834	C
4 - A27 Eastbound Slips	460	115	851	1614	0.285	461	1220	0.6	0.4	3.125	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	738	184	682	1920	0.384	739	410	0.9	0.6	3.051	A
2 - A283 South	772	193	712	1122	0.688	944	709	45.3	2.4	42.374	E
3 - A283 North	1086	271	640	1663	0.653	1095	1016	4.2	1.9	6.439	A
4 - A27 Eastbound Slips	385	96	707	1689	0.228	386	1028	0.4	0.3	2.764	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	89.62	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-16	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1640	100.000
2 - A283 South		ONE HOUR	✓	947	100.000
3 - A283 North		ONE HOUR	✓	1433	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	490	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	921	64
	2 - A283 South	202	0	472	273
	3 - A283 North	297	436	0	700
	4 - A27 Eastbound Slips	0	189	301	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	2	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	1.02	71.93	37.7	F	1505	2257
2 - A283 South	1.17	273.84	82.7	F	869	1303
3 - A283 North	0.89	18.23	7.6	C	1315	1972
4 - A27 Eastbound Slips	0.34	3.47	0.5	A	450	674

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1235	309	694	1956	0.631	1228	373	0.0	1.7	4.898	A
2 - A283 South	713	178	963	1060	0.673	705	959	0.0	2.0	9.943	A
3 - A283 North	1079	270	402	1826	0.591	1073	1267	0.0	1.4	4.744	A
4 - A27 Eastbound Slips	369	92	699	1729	0.213	368	775	0.0	0.3	2.642	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1474	369	831	1881	0.784	1467	445	1.7	3.5	8.560	A
2 - A283 South	851	213	1152	984	0.865	838	1146	2.0	5.4	22.730	C
3 - A283 North	1288	322	477	1787	0.721	1284	1512	1.4	2.5	7.090	A
4 - A27 Eastbound Slips	441	110	835	1658	0.266	440	926	0.3	0.4	2.955	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1806	451	1013	1779	1.015	1721	513	3.5	24.7	39.039	E
2 - A283 South	1043	261	1365	898	1.161	887	1370	5.4	44.2	114.084	F
3 - A283 North	1578	394	512	1769	0.892	1559	1740	2.5	7.1	15.930	C
4 - A27 Eastbound Slips	540	135	987	1580	0.342	539	1085	0.4	0.5	3.456	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1806	451	1019	1776	1.017	1754	516	24.7	37.7	71.933	F
2 - A283 South	1043	261	1385	890	1.171	889	1388	44.2	82.7	263.346	F
3 - A283 North	1578	394	514	1768	0.892	1576	1759	7.1	7.6	18.230	C
4 - A27 Eastbound Slips	540	135	996	1575	0.342	539	1094	0.5	0.5	3.474	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1474	369	839	1876	0.786	1609	471	37.7	3.9	20.328	C
2 - A283 South	851	213	1238	949	0.897	938	1211	82.7	61.1	273.837	F
3 - A283 North	1288	322	533	1758	0.733	1307	1642	7.6	2.8	8.296	A
4 - A27 Eastbound Slips	441	110	869	1641	0.268	441	972	0.5	0.4	3.000	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1235	309	699	1954	0.632	1243	427	3.9	1.7	5.126	A
2 - A283 South	713	178	974	1056	0.675	948	969	61.1	2.3	83.926	F
3 - A283 North	1079	270	524	1763	0.612	1084	1398	2.8	1.6	5.337	A
4 - A27 Eastbound Slips	369	92	757	1699	0.217	369	851	0.4	0.3	2.706	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	103.07	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1000	100.000
2 - A283 South		ONE HOUR	✓	1060	100.000
3 - A283 North		ONE HOUR	✓	1416	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	552	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	620	76
	2 - A283 South	196	0	427	437
	3 - A283 North	296	389	0	731
	4 - A27 Eastbound Slips	0	244	308	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	4	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.64	5.75	1.7	A	918	1376
2 - A283 South	1.21	340.09	109.2	F	973	1459
3 - A283 North	0.94	32.02	13.0	D	1299	1949
4 - A27 Eastbound Slips	0.39	3.71	0.6	A	507	760

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	753	188	705	1908	0.395	750	367	0.0	0.6	3.102	A
2 - A283 South	798	200	753	1107	0.721	788	702	0.0	2.5	10.955	B
3 - A283 North	1066	267	528	1720	0.620	1060	1014	0.0	1.6	5.403	A
4 - A27 Eastbound Slips	416	104	658	1718	0.242	414	929	0.0	0.3	2.759	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	899	225	844	1832	0.491	898	437	0.6	1.0	3.850	A
2 - A283 South	953	238	901	1048	0.909	933	840	2.5	7.5	27.395	D
3 - A283 North	1273	318	625	1669	0.763	1267	1209	1.6	3.1	8.821	A
4 - A27 Eastbound Slips	496	124	785	1651	0.300	496	1107	0.3	0.4	3.115	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1101	275	1026	1731	0.636	1098	497	1.0	1.7	5.663	A
2 - A283 South	1167	292	1103	968	1.206	961	1022	7.5	59.0	136.386	F
3 - A283 North	1559	390	657	1653	0.943	1527	1407	3.1	11.1	24.100	C
4 - A27 Eastbound Slips	608	152	916	1583	0.384	607	1268	0.4	0.6	3.684	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1101	275	1034	1727	0.638	1101	503	1.7	1.7	5.752	A
2 - A283 South	1167	292	1105	967	1.207	966	1030	59.0	109.2	315.561	F
3 - A283 North	1559	390	661	1651	0.944	1551	1411	11.1	13.0	32.020	D
4 - A27 Eastbound Slips	608	152	929	1576	0.386	608	1283	0.6	0.6	3.715	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	899	225	857	1824	0.493	902	466	1.7	1.0	3.916	A
2 - A283 South	953	238	905	1047	0.910	1037	854	109.2	88.1	340.088	F
3 - A283 North	1273	318	688	1637	0.778	1310	1254	13.0	3.7	12.166	B
4 - A27 Eastbound Slips	496	124	826	1630	0.304	497	1173	0.6	0.4	3.179	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	753	188	711	1905	0.395	754	426	1.0	0.7	3.129	A
2 - A283 South	798	200	757	1106	0.722	1094	708	88.1	14.2	173.191	F
3 - A283 North	1066	267	710	1625	0.656	1073	1140	3.7	1.9	6.601	A
4 - A27 Eastbound Slips	416	104	721	1685	0.247	416	1062	0.4	0.3	2.837	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	74.61	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1617	100.000
2 - A283 South		ONE HOUR	✓	937	100.000
3 - A283 North		ONE HOUR	✓	1448	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	473	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	898	64
	2 - A283 South	202	0	462	273
	3 - A283 North	303	438	0	707
	4 - A27 Eastbound Slips	0	189	284	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	2	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	1.00	56.81	28.1	F	1484	2226
2 - A283 South	1.14	225.94	71.1	F	860	1290
3 - A283 North	0.90	20.30	8.5	C	1329	1993
4 - A27 Eastbound Slips	0.33	3.44	0.5	A	434	651

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1217	304	683	1962	0.620	1211	377	0.0	1.6	4.753	A
2 - A283 South	705	176	934	1071	0.658	698	960	0.0	1.9	9.459	A
3 - A283 North	1090	273	402	1826	0.597	1084	1230	0.0	1.5	4.815	A
4 - A27 Eastbound Slips	356	89	705	1725	0.206	355	781	0.0	0.3	2.626	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1454	363	817	1888	0.770	1447	451	1.6	3.2	8.053	A
2 - A283 South	842	211	1116	998	0.844	831	1148	1.9	4.7	20.271	C
3 - A283 North	1302	325	478	1787	0.728	1297	1468	1.5	2.6	7.282	A
4 - A27 Eastbound Slips	425	106	843	1654	0.257	425	933	0.3	0.3	2.929	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1780	445	996	1789	0.995	1714	523	3.2	19.9	33.493	D
2 - A283 South	1032	258	1332	911	1.132	897	1378	4.7	38.4	100.088	F
3 - A283 North	1594	399	523	1764	0.904	1573	1706	2.6	7.8	17.248	C
4 - A27 Eastbound Slips	521	130	999	1573	0.331	520	1097	0.3	0.5	3.417	A

17:30 - 17:45

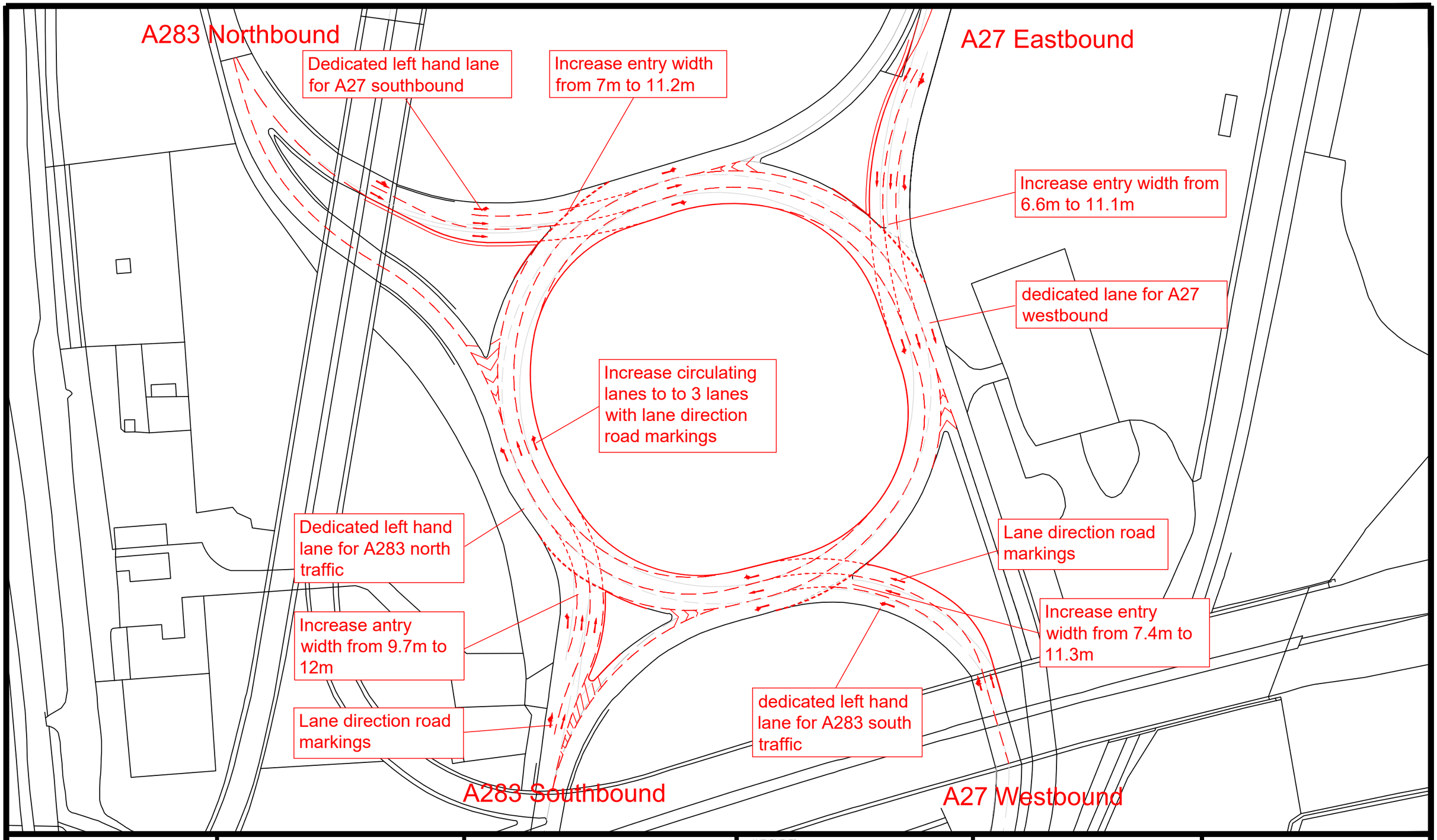
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1780	445	1002	1785	0.997	1748	527	19.9	28.1	56.806	F
2 - A283 South	1032	258	1352	903	1.143	901	1397	38.4	71.1	225.940	F
3 - A283 North	1594	399	526	1763	0.905	1592	1727	7.8	8.5	20.301	C
4 - A27 Eastbound Slips	521	130	1009	1568	0.332	521	1109	0.5	0.5	3.436	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1454	363	826	1883	0.772	1552	484	28.1	3.6	14.103	B
2 - A283 South	842	211	1179	973	0.866	959	1199	71.1	41.9	212.780	F
3 - A283 North	1302	325	548	1751	0.743	1324	1590	8.5	3.0	8.823	A
4 - A27 Eastbound Slips	425	106	884	1633	0.260	426	987	0.5	0.4	2.983	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1217	304	688	1960	0.621	1225	416	3.6	1.7	4.949	A
2 - A283 South	705	176	943	1068	0.661	865	970	41.9	2.1	35.062	E
3 - A283 North	1090	273	487	1783	0.612	1096	1321	3.0	1.6	5.284	A
4 - A27 Eastbound Slips	356	89	747	1704	0.209	356	835	0.4	0.3	2.672	A



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NOTES

1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A27 SLIP / A283

Date	Drawn		
12/11/2021	MAW		
Checked	Date	Approved	Date
Scale: 1/1000@A3	Drg No.: APPENDIX 19.2		Rev.

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 8 (A27 Slips) Proposed.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 8 (A27 Slips)
Report generation date: 20/01/2022 12:46:43

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A27 Westbound Slips	0.9	2.79	0.46	A	4.01	A	32 % [2 - A283 South]	2.9	5.75	0.75	A	4.60	A	22 % [1 - A27 Westbound Slips]
2 - A283 South	1.8	5.54	0.64	A				1.6	5.58	0.62	A			
3 - A283 North	2.1	4.41	0.67	A				1.6	3.56	0.62	A			
4 - A27 Eastbound Slips	0.4	2.20	0.27	A				0.3	2.13	0.25	A			
Scenario 2 Total														
1 - A27 Westbound Slips	0.8	2.76	0.46	A	3.90	A	33 % [2 - A283 South]	2.7	5.47	0.73	A	4.43	A	23 % [1 - A27 Westbound Slips]
2 - A283 South	1.8	5.46	0.64	A				1.5	5.36	0.61	A			
3 - A283 North	1.9	4.18	0.66	A				1.6	3.49	0.62	A			
4 - A27 Eastbound Slips	0.4	2.18	0.27	A				0.3	2.10	0.24	A			
Scenario 3 Total														
1 - A27 Westbound Slips	0.8	2.63	0.44	A	3.64	A	38 % [2 - A283 South]	2.6	5.27	0.73	A	4.28	A	25 % [1 - A27 Westbound Slips]
2 - A283 South	1.5	4.91	0.61	A				1.5	5.30	0.61	A			
3 - A283 North	1.7	3.95	0.64	A				1.4	3.26	0.59	A			
4 - A27 Eastbound Slips	0.3	2.09	0.25	A				0.3	2.04	0.23	A			
Scenario 4 Total														
1 - A27 Westbound Slips	0.8	2.73	0.45	A	3.75	A	33 % [2 - A283 South]	2.5	5.01	0.71	A	4.15	A	26 % [1 - A27 Westbound Slips]
2 - A283 South	1.7	5.43	0.64	A				1.4	5.04	0.59	A			
3 - A283 North	1.7	3.84	0.62	A				1.5	3.31	0.59	A			
4 - A27 Eastbound Slips	0.4	2.14	0.27	A				0.3	2.03	0.23	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 19.3
ARCADY OUTPUTS: PROPOSED DEVELOPMENT SCENARIOS
(WITH PROPOSED JUNCTION IMPROVEMENTS)

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15			
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.01	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	2 - A283 South

Arms

Arms

Arm	Name	Description
1	A27 Westbound Slips	
2	A283 South	
3	A283 North	
4	A27 Eastbound Slips	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 Westbound Slips	6.80	11.30	32.5	46.9	127.6	19.0	
2 - A283 South	4.90	12.00	26.4	32.1	127.6	48.0	
3 - A283 North	6.90	11.20	26.3	74.9	127.6	23.0	
4 - A27 Eastbound Slips	6.10	11.10	37.4	62.5	127.6	32.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 Westbound Slips	0.668	3204
2 - A283 South	0.551	2525
3 - A283 North	0.656	3123
4 - A27 Eastbound Slips	0.630	2986

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1013	100.000
2 - A283 South		ONE HOUR	✓	1063	100.000
3 - A283 North		ONE HOUR	✓	1532	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	555	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	633	76
	2 - A283 South	196	0	430	437
	3 - A283 North	345	407	0	780
	4 - A27 Eastbound Slips	0	244	311	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.46	2.79	0.9	A	930	1394
2 - A283 South	0.64	5.54	1.8	A	975	1463
3 - A283 North	0.67	4.41	2.1	A	1406	2109
4 - A27 Eastbound Slips	0.27	2.20	0.4	A	509	764

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	763	191	723	2632	0.290	761	406	0.0	0.4	1.922	A
2 - A283 South	800	200	766	2015	0.397	798	717	0.0	0.7	2.951	A
3 - A283 North	1153	288	532	2667	0.433	1150	1032	0.0	0.8	2.369	A
4 - A27 Eastbound Slips	418	104	712	2458	0.170	417	971	0.0	0.2	1.764	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	911	228	864	2538	0.359	910	486	0.4	0.6	2.212	A
2 - A283 South	956	239	916	1933	0.494	954	858	0.7	1.0	3.673	A
3 - A283 North	1377	344	637	2598	0.530	1376	1234	0.8	1.1	2.941	A
4 - A27 Eastbound Slips	499	125	851	2369	0.211	499	1161	0.2	0.3	1.924	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1115	279	1058	2408	0.463	1114	594	0.6	0.9	2.780	A
2 - A283 South	1170	293	1122	1821	0.643	1167	1050	1.0	1.8	5.479	A
3 - A283 North	1687	422	779	2504	0.674	1683	1511	1.1	2.0	4.364	A
4 - A27 Eastbound Slips	611	153	1041	2248	0.272	611	1420	0.3	0.4	2.198	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1115	279	1059	2407	0.463	1115	596	0.9	0.9	2.786	A
2 - A283 South	1170	293	1123	1821	0.643	1170	1051	1.8	1.8	5.536	A
3 - A283 North	1687	422	781	2503	0.674	1687	1513	2.0	2.1	4.409	A
4 - A27 Eastbound Slips	611	153	1044	2247	0.272	611	1424	0.4	0.4	2.200	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	911	228	866	2536	0.359	912	488	0.9	0.6	2.219	A
2 - A283 South	956	239	918	1932	0.495	959	860	1.8	1.0	3.709	A
3 - A283 North	1377	344	639	2596	0.530	1381	1237	2.1	1.1	2.972	A
4 - A27 Eastbound Slips	499	125	855	2367	0.211	499	1166	0.4	0.3	1.929	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	763	191	725	2631	0.290	763	408	0.6	0.4	1.927	A
2 - A283 South	800	200	768	2014	0.397	802	720	1.0	0.7	2.972	A
3 - A283 North	1153	288	535	2665	0.433	1155	1035	1.1	0.8	2.385	A
4 - A27 Eastbound Slips	418	104	715	2456	0.170	418	975	0.3	0.2	1.768	A

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.60	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	1 - A27 Westbound Slips

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1661	100.000
2 - A283 South		ONE HOUR	✓	956	100.000
3 - A283 North		ONE HOUR	✓	1519	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	509	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	942	64
	2 - A283 South	202	0	481	273
	3 - A283 North	342	464	0	713
	4 - A27 Eastbound Slips	0	189	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.75	5.75	2.9	A	1524	2286
2 - A283 South	0.62	5.58	1.6	A	877	1316
3 - A283 North	0.62	3.56	1.6	A	1394	2091
4 - A27 Eastbound Slips	0.25	2.13	0.3	A	467	701

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1250	313	731	2683	0.466	1247	408	0.0	0.9	2.500	A
2 - A283 South	720	180	996	1953	0.368	717	982	0.0	0.6	2.908	A
3 - A283 North	1144	286	404	2807	0.407	1141	1309	0.0	0.7	2.156	A
4 - A27 Eastbound Slips	383	96	757	2475	0.155	382	788	0.0	0.2	1.720	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1493	373	874	2587	0.577	1491	489	0.9	1.4	3.280	A
2 - A283 South	859	215	1191	1846	0.466	858	1175	0.6	0.9	3.642	A
3 - A283 North	1366	341	484	2756	0.496	1364	1565	0.7	1.0	2.585	A
4 - A27 Eastbound Slips	458	114	905	2381	0.192	457	943	0.2	0.2	1.870	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1829	457	1070	2455	0.745	1823	598	1.4	2.9	5.640	A
2 - A283 South	1053	263	1456	1700	0.619	1050	1437	0.9	1.6	5.508	A
3 - A283 North	1672	418	592	2685	0.623	1670	1914	1.0	1.6	3.536	A
4 - A27 Eastbound Slips	560	140	1108	2253	0.249	560	1154	0.2	0.3	2.126	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1829	457	1071	2454	0.745	1829	599	2.9	2.9	5.748	A
2 - A283 South	1053	263	1460	1698	0.620	1053	1440	1.6	1.6	5.576	A
3 - A283 North	1672	418	593	2684	0.623	1672	1919	1.6	1.6	3.556	A
4 - A27 Eastbound Slips	560	140	1110	2252	0.249	560	1156	0.3	0.3	2.128	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1493	373	876	2586	0.578	1499	490	2.9	1.4	3.331	A
2 - A283 South	859	215	1196	1843	0.466	862	1179	1.6	0.9	3.683	A
3 - A283 North	1366	341	486	2754	0.496	1368	1572	1.6	1.0	2.601	A
4 - A27 Eastbound Slips	458	114	908	2379	0.192	458	946	0.3	0.2	1.873	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1250	313	733	2681	0.466	1252	410	1.4	0.9	2.524	A
2 - A283 South	720	180	1000	1951	0.369	721	986	0.9	0.6	2.930	A
3 - A283 North	1144	286	406	2806	0.408	1145	1314	1.0	0.7	2.168	A
4 - A27 Eastbound Slips	383	96	760	2473	0.155	383	791	0.2	0.2	1.724	A

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	3.90	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	33	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1006	100.000
2 - A283 South		ONE HOUR	✓	1060	100.000
3 - A283 North		ONE HOUR	✓	1489	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	551	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	626	76
	2 - A283 South	196	0	427	437
	3 - A283 North	330	401	0	758
	4 - A27 Eastbound Slips	0	244	307	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	3	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.46	2.76	0.8	A	923	1385
2 - A283 South	0.64	5.46	1.8	A	973	1459
3 - A283 North	0.66	4.18	1.9	A	1366	2050
4 - A27 Eastbound Slips	0.27	2.18	0.4	A	506	758

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	757	189	715	2637	0.287	756	395	0.0	0.4	1.911	A
2 - A283 South	798	200	758	2019	0.395	795	713	0.0	0.7	2.936	A
3 - A283 North	1121	280	532	2664	0.421	1118	1021	0.0	0.7	2.325	A
4 - A27 Eastbound Slips	415	104	696	2467	0.168	414	954	0.0	0.2	1.753	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	904	226	855	2543	0.356	904	472	0.4	0.5	2.196	A
2 - A283 South	953	238	907	1938	0.492	952	852	0.7	1.0	3.644	A
3 - A283 North	1339	335	637	2595	0.516	1337	1222	0.7	1.1	2.859	A
4 - A27 Eastbound Slips	495	124	832	2380	0.208	495	1141	0.2	0.3	1.909	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1108	277	1047	2414	0.459	1106	578	0.5	0.8	2.750	A
2 - A283 South	1167	292	1110	1827	0.639	1164	1043	1.0	1.7	5.400	A
3 - A283 North	1639	410	779	2502	0.655	1636	1495	1.1	1.9	4.142	A
4 - A27 Eastbound Slips	607	152	1018	2262	0.268	606	1396	0.3	0.4	2.174	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1108	277	1048	2414	0.459	1108	579	0.8	0.8	2.756	A
2 - A283 South	1167	292	1111	1827	0.639	1167	1045	1.7	1.8	5.456	A
3 - A283 North	1639	410	781	2501	0.656	1639	1497	1.9	1.9	4.179	A
4 - A27 Eastbound Slips	607	152	1021	2260	0.268	607	1399	0.4	0.4	2.176	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	904	226	857	2542	0.356	906	474	0.8	0.6	2.203	A
2 - A283 South	953	238	908	1937	0.492	956	855	1.8	1.0	3.679	A
3 - A283 North	1339	335	639	2594	0.516	1342	1225	1.9	1.1	2.882	A
4 - A27 Eastbound Slips	495	124	836	2378	0.208	496	1146	0.4	0.3	1.911	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	757	189	717	2635	0.287	758	397	0.6	0.4	1.917	A
2 - A283 South	798	200	760	2018	0.395	799	715	1.0	0.7	2.956	A
3 - A283 North	1121	280	535	2663	0.421	1122	1025	1.1	0.7	2.340	A
4 - A27 Eastbound Slips	415	104	699	2465	0.168	415	958	0.3	0.2	1.758	A

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.43	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	23	1 - A27 Westbound Slips

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1643	100.000
2 - A283 South		ONE HOUR	✓	950	100.000
3 - A283 North		ONE HOUR	✓	1502	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	495	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	924	64
	2 - A283 South	202	0	475	273
	3 - A283 North	337	460	0	705
	4 - A27 Eastbound Slips	0	189	306	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	1	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.73	5.47	2.7	A	1508	2261
2 - A283 South	0.61	5.36	1.5	A	872	1308
3 - A283 North	0.62	3.49	1.6	A	1378	2067
4 - A27 Eastbound Slips	0.24	2.10	0.3	A	454	681

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1237	309	717	2692	0.460	1234	405	0.0	0.8	2.464	A
2 - A283 South	715	179	972	1966	0.364	713	979	0.0	0.6	2.868	A
3 - A283 North	1131	283	405	2807	0.403	1128	1280	0.0	0.7	2.140	A
4 - A27 Eastbound Slips	373	93	750	2478	0.150	372	782	0.0	0.2	1.709	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1477	369	858	2597	0.569	1475	484	0.8	1.3	3.202	A
2 - A283 South	854	214	1162	1862	0.459	853	1171	0.6	0.8	3.566	A
3 - A283 North	1350	338	484	2755	0.490	1349	1531	0.7	1.0	2.557	A
4 - A27 Eastbound Slips	445	111	897	2385	0.187	445	936	0.2	0.2	1.854	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1809	452	1050	2468	0.733	1803	592	1.3	2.7	5.372	A
2 - A283 South	1046	261	1421	1719	0.608	1043	1433	0.8	1.5	5.305	A
3 - A283 North	1654	413	592	2685	0.616	1651	1873	1.0	1.6	3.473	A
4 - A27 Eastbound Slips	545	136	1098	2258	0.241	545	1145	0.2	0.3	2.100	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1809	452	1051	2467	0.733	1809	593	2.7	2.7	5.465	A
2 - A283 South	1046	261	1425	1717	0.609	1046	1436	1.5	1.5	5.362	A
3 - A283 North	1654	413	593	2684	0.616	1654	1877	1.6	1.6	3.493	A
4 - A27 Eastbound Slips	545	136	1100	2257	0.241	545	1147	0.3	0.3	2.102	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1477	369	860	2596	0.569	1483	486	2.7	1.3	3.248	A
2 - A283 South	854	214	1167	1859	0.459	857	1175	1.5	0.9	3.603	A
3 - A283 North	1350	338	486	2754	0.490	1353	1537	1.6	1.0	2.575	A
4 - A27 Eastbound Slips	445	111	900	2383	0.187	445	939	0.3	0.2	1.859	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1237	309	720	2690	0.460	1239	406	1.3	0.9	2.483	A
2 - A283 South	715	179	975	1964	0.364	716	983	0.9	0.6	2.886	A
3 - A283 North	1131	283	406	2806	0.403	1132	1285	1.0	0.7	2.153	A
4 - A27 Eastbound Slips	373	93	753	2476	0.150	373	785	0.2	0.2	1.710	A

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	3.64	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	38	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	980	100.000
2 - A283 South		ONE HOUR	✓	1026	100.000
3 - A283 North		ONE HOUR	✓	1442	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	600	76
	2 - A283 South	196	0	393	437
	3 - A283 North	303	390	0	749
	4 - A27 Eastbound Slips	0	244	268	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	4	4	0	4
	4 - A27 Eastbound Slips	0	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.44	2.63	0.8	A	899	1349
2 - A283 South	0.61	4.91	1.5	A	941	1412
3 - A283 North	0.64	3.95	1.7	A	1323	1985
4 - A27 Eastbound Slips	0.25	2.09	0.3	A	470	705

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	738	184	678	2659	0.277	736	375	0.0	0.4	1.869	A
2 - A283 South	772	193	709	2042	0.378	770	705	0.0	0.6	2.825	A
3 - A283 North	1086	271	532	2661	0.408	1083	947	0.0	0.7	2.277	A
4 - A27 Eastbound Slips	385	96	668	2479	0.155	385	948	0.0	0.2	1.718	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	881	220	810	2570	0.343	880	448	0.4	0.5	2.130	A
2 - A283 South	922	231	848	1967	0.469	921	843	0.6	0.9	3.440	A
3 - A283 North	1296	324	637	2592	0.500	1295	1133	0.7	1.0	2.772	A
4 - A27 Eastbound Slips	460	115	798	2396	0.192	460	1133	0.2	0.2	1.858	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1079	270	992	2448	0.441	1078	548	0.5	0.8	2.626	A
2 - A283 South	1130	282	1038	1863	0.606	1127	1031	0.9	1.5	4.875	A
3 - A283 North	1588	397	779	2499	0.635	1585	1387	1.0	1.7	3.925	A
4 - A27 Eastbound Slips	564	141	977	2283	0.247	563	1387	0.2	0.3	2.093	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1079	270	993	2448	0.441	1079	549	0.8	0.8	2.630	A
2 - A283 South	1130	282	1039	1863	0.607	1130	1033	1.5	1.5	4.911	A
3 - A283 North	1588	397	781	2498	0.636	1588	1388	1.7	1.7	3.954	A
4 - A27 Eastbound Slips	564	141	979	2282	0.247	564	1389	0.3	0.3	2.095	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	881	220	812	2569	0.343	882	450	0.8	0.5	2.135	A
2 - A283 South	922	231	850	1966	0.469	925	845	1.5	0.9	3.465	A
3 - A283 North	1296	324	639	2591	0.500	1299	1135	1.7	1.0	2.794	A
4 - A27 Eastbound Slips	460	115	801	2395	0.192	461	1137	0.3	0.2	1.860	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	738	184	680	2658	0.278	738	376	0.5	0.4	1.878	A
2 - A283 South	772	193	711	2041	0.378	774	707	0.9	0.6	2.843	A
3 - A283 North	1086	271	535	2660	0.408	1087	950	1.0	0.7	2.292	A
4 - A27 Eastbound Slips	385	96	670	2478	0.156	386	951	0.2	0.2	1.720	A

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.28	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	25	1 - A27 Westbound Slips

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1640	100.000
2 - A283 South		ONE HOUR	✓	947	100.000
3 - A283 North		ONE HOUR	✓	1433	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	490	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	921	64
	2 - A283 South	202	0	472	273
	3 - A283 North	297	436	0	700
	4 - A27 Eastbound Slips	0	189	301	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	2	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.73	5.27	2.6	A	1505	2257
2 - A283 South	0.61	5.30	1.5	A	869	1303
3 - A283 North	0.59	3.26	1.4	A	1315	1972
4 - A27 Eastbound Slips	0.23	2.04	0.3	A	450	674

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1235	309	696	2706	0.456	1231	375	0.0	0.8	2.436	A
2 - A283 South	713	178	966	1969	0.362	711	961	0.0	0.6	2.855	A
3 - A283 North	1079	270	405	2805	0.385	1076	1272	0.0	0.6	2.080	A
4 - A27 Eastbound Slips	369	92	702	2508	0.147	368	779	0.0	0.2	1.682	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1474	369	832	2614	0.564	1473	448	0.8	1.3	3.147	A
2 - A283 South	851	213	1155	1865	0.456	850	1150	0.6	0.8	3.543	A
3 - A283 North	1288	322	484	2753	0.468	1287	1521	0.6	0.9	2.455	A
4 - A27 Eastbound Slips	441	110	840	2421	0.182	440	931	0.2	0.2	1.817	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1806	451	1019	2489	0.725	1800	548	1.3	2.6	5.189	A
2 - A283 South	1043	261	1413	1724	0.605	1040	1406	0.8	1.5	5.243	A
3 - A283 North	1578	394	592	2683	0.588	1576	1861	0.9	1.4	3.244	A
4 - A27 Eastbound Slips	540	135	1028	2302	0.234	539	1140	0.2	0.3	2.042	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1806	451	1020	2488	0.726	1806	549	2.6	2.6	5.270	A
2 - A283 South	1043	261	1416	1722	0.606	1043	1409	1.5	1.5	5.298	A
3 - A283 North	1578	394	593	2682	0.588	1578	1865	1.4	1.4	3.260	A
4 - A27 Eastbound Slips	540	135	1029	2301	0.234	539	1142	0.3	0.3	2.043	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1474	369	833	2613	0.564	1480	450	2.6	1.3	3.191	A
2 - A283 South	851	213	1159	1863	0.457	854	1154	1.5	0.8	3.576	A
3 - A283 North	1288	322	486	2752	0.468	1290	1527	1.4	0.9	2.468	A
4 - A27 Eastbound Slips	441	110	842	2419	0.182	441	934	0.3	0.2	1.819	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1235	309	698	2705	0.457	1237	376	1.3	0.8	2.456	A
2 - A283 South	713	178	969	1967	0.362	714	965	0.8	0.6	2.874	A
3 - A283 North	1079	270	406	2803	0.385	1080	1277	0.9	0.6	2.091	A
4 - A27 Eastbound Slips	369	92	705	2506	0.147	369	782	0.2	0.2	1.686	A

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	3.75	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	33	2 - A283 South

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1000	100.000
2 - A283 South		ONE HOUR	✓	1060	100.000
3 - A283 North		ONE HOUR	✓	1416	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	552	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	304	620	76
	2 - A283 South	196	0	427	437
	3 - A283 North	296	389	0	731
	4 - A27 Eastbound Slips	0	244	308	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	3	3	3
	2 - A283 South	4	0	4	4
	3 - A283 North	4	4	0	4
	4 - A27 Eastbound Slips	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.45	2.73	0.8	A	918	1376
2 - A283 South	0.64	5.43	1.7	A	973	1459
3 - A283 North	0.62	3.84	1.7	A	1299	1949
4 - A27 Eastbound Slips	0.27	2.14	0.4	A	507	760

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	753	188	707	2642	0.285	751	369	0.0	0.4	1.902	A
2 - A283 South	798	200	754	2021	0.395	795	704	0.0	0.6	2.931	A
3 - A283 North	1066	267	532	2659	0.401	1063	1018	0.0	0.7	2.252	A
4 - A27 Eastbound Slips	416	104	661	2488	0.167	415	934	0.0	0.2	1.736	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	899	225	845	2549	0.353	898	442	0.4	0.5	2.181	A
2 - A283 South	953	238	902	1941	0.491	952	842	0.6	1.0	3.635	A
3 - A283 North	1273	318	637	2591	0.491	1272	1217	0.7	1.0	2.726	A
4 - A27 Eastbound Slips	496	124	791	2405	0.206	496	1117	0.2	0.3	1.884	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1101	275	1035	2422	0.455	1100	541	0.5	0.8	2.720	A
2 - A283 South	1167	292	1104	1830	0.638	1164	1030	1.0	1.7	5.378	A
3 - A283 North	1559	390	779	2497	0.624	1556	1490	1.0	1.6	3.814	A
4 - A27 Eastbound Slips	608	152	968	2293	0.265	607	1367	0.3	0.4	2.136	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1101	275	1036	2421	0.455	1101	542	0.8	0.8	2.726	A
2 - A283 South	1167	292	1105	1830	0.638	1167	1032	1.7	1.7	5.432	A
3 - A283 North	1559	390	781	2496	0.625	1559	1492	1.6	1.7	3.841	A
4 - A27 Eastbound Slips	608	152	970	2292	0.265	608	1370	0.4	0.4	2.137	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	899	225	847	2548	0.353	900	443	0.8	0.5	2.186	A
2 - A283 South	953	238	904	1940	0.491	956	844	1.7	1.0	3.670	A
3 - A283 North	1273	318	639	2589	0.492	1276	1220	1.7	1.0	2.748	A
4 - A27 Eastbound Slips	496	124	794	2404	0.206	497	1121	0.4	0.3	1.890	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	753	188	709	2640	0.285	753	371	0.5	0.4	1.907	A
2 - A283 South	798	200	756	2020	0.395	799	706	1.0	0.7	2.951	A
3 - A283 North	1066	267	535	2658	0.401	1067	1021	1.0	0.7	2.266	A
4 - A27 Eastbound Slips	416	104	664	2486	0.167	416	938	0.3	0.2	1.737	A

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 Westbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A27 Eastbound Slips - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
7	A27 Slips Roundabout	Standard Roundabout	1, 2, 3, 4	4.15	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	1 - A27 Westbound Slips

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 Westbound Slips		ONE HOUR	✓	1617	100.000
2 - A283 South		ONE HOUR	✓	937	100.000
3 - A283 North		ONE HOUR	✓	1448	100.000
4 - A27 Eastbound Slips		ONE HOUR	✓	473	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	655	898	64
	2 - A283 South	202	0	462	273
	3 - A283 North	303	438	0	707
	4 - A27 Eastbound Slips	0	189	284	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 Westbound Slips	2 - A283 South	3 - A283 North	4 - A27 Eastbound Slips
From	1 - A27 Westbound Slips	0	1	1	1
	2 - A283 South	1	0	1	1
	3 - A283 North	2	2	0	2
	4 - A27 Eastbound Slips	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 Westbound Slips	0.71	5.01	2.5	A	1484	2226
2 - A283 South	0.59	5.04	1.4	A	860	1290
3 - A283 North	0.59	3.31	1.5	A	1329	1993
4 - A27 Eastbound Slips	0.23	2.03	0.3	A	434	651

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1217	304	684	2713	0.449	1214	379	0.0	0.8	2.397	A
2 - A283 South	705	176	936	1986	0.355	703	963	0.0	0.5	2.802	A
3 - A283 North	1090	273	405	2805	0.389	1088	1234	0.0	0.6	2.093	A
4 - A27 Eastbound Slips	356	89	708	2503	0.142	355	784	0.0	0.2	1.676	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1454	363	818	2623	0.554	1452	454	0.8	1.2	3.070	A
2 - A283 South	842	211	1119	1885	0.447	841	1151	0.5	0.8	3.447	A
3 - A283 North	1302	325	484	2753	0.473	1301	1476	0.6	0.9	2.477	A
4 - A27 Eastbound Slips	425	106	847	2415	0.176	425	938	0.2	0.2	1.808	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1780	445	1002	2500	0.712	1776	555	1.2	2.4	4.939	A
2 - A283 South	1032	258	1369	1747	0.590	1029	1409	0.8	1.4	4.995	A
3 - A283 North	1594	399	592	2683	0.594	1592	1806	0.9	1.5	3.292	A
4 - A27 Eastbound Slips	521	130	1037	2295	0.227	520	1147	0.2	0.3	2.028	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1780	445	1003	2499	0.712	1780	556	2.4	2.5	5.007	A
2 - A283 South	1032	258	1372	1746	0.591	1032	1411	1.4	1.4	5.040	A
3 - A283 North	1594	399	593	2682	0.594	1594	1810	1.5	1.5	3.308	A
4 - A27 Eastbound Slips	521	130	1038	2294	0.227	521	1149	0.3	0.3	2.029	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1454	363	820	2622	0.554	1458	455	2.5	1.3	3.105	A
2 - A283 South	842	211	1123	1883	0.447	845	1155	1.4	0.8	3.476	A
3 - A283 North	1302	325	486	2752	0.473	1304	1482	1.5	0.9	2.489	A
4 - A27 Eastbound Slips	425	106	849	2414	0.176	426	941	0.3	0.2	1.810	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 Westbound Slips	1217	304	686	2712	0.449	1219	381	1.3	0.8	2.414	A
2 - A283 South	705	176	939	1984	0.356	706	966	0.8	0.6	2.822	A
3 - A283 North	1090	273	406	2804	0.389	1091	1239	0.9	0.6	2.102	A
4 - A27 Eastbound Slips	356	89	711	2501	0.142	356	787	0.2	0.2	1.680	A

Parameter		Variable	Paragraph	CD116 Requirement	Design Actual	Acceptable	Comments
ICD		D	3.1 to 3.5	D value between 28m and 100m	127.3	Yes	Existing roundabout ICD is 127.6
Circulatory width		c	3.6 to 3.9	c value ≤15m	13.7	Yes	
A283 (NW)	Arm 1 (8.00)	e	3.6 to 3.9	Between 1.0 and 1.2 times entry width, excluding any overrun area	13.4	Yes	Max 13.92
A27 (NE)	Arm 2 (14.7)				14.0	Yes	Max 17.16
A27 (SE)	Arm 3 (11.3)				13.3	Yes	Max 13.56
A283 (SW)	Arm 4 (12.5)				13.7	Yes	Max 13.8
Central island diameter		I	3.7	I value ≤4m	100.4	Yes	
Central overrun area		b	3.8 to 3.9	To provide sufficient entry deflection for vehicles while still allowing large vehicles to circulate	N/A	N/A	No central overrun area is provided on either inside or outside as existing.
Splitter island width	Arm 1	s	8.0 onwards	s value absolute minimum 1.2m, preferably 2.5m	30.9	Yes	Measured at widest point
	Arm 2				19.8	Yes	Measured at widest point
	Arm 3				47.1	Yes	Measured at widest point
	Arm 4				19.0	Yes	Measured at widest point
Entry width	Arm 1	e	3.13	e value 15m parameter range (practical limits for dual carriageway approach)	11.6	Yes	
	Arm 2				14.3	Yes	
	Arm 3				11.3	Yes	
	Arm 4				12.0	Yes	
Approach half width	Arm 1	v	3.16 and Table B.2		4.9	Yes	No change from existing
	Arm 2			v value 2.0m - 7.3m parameter range (practical limits)	8.2	Yes	No change from existing
	Arm 3				6.8	Yes	No change from existing
	Arm 4				4.0	Yes	No change from existing
Entry lane alignment	Arm 1	L	3.18	Splitter island kerb (arc) must be tangential to central island when extended forward from give way line		Yes	Curve is tangential
	Arm 2					Yes	Curve is tangential
	Arm 3					Yes	Curve is tangential
	Arm 4					Yes	Curve is tangential
Flare length	Arm 1	l'	3.17		24.9	Yes	
	Arm 2			single lane entries should be slightly flared to accommodate HGV's	19.8	Yes	
	Arm 3				32.5	Yes	
	Arm 4				26.4	Yes	
Entry angle	Arm 1	Φ	3.18		31.0	Yes	
	Arm 2			Φ value between 20 to 60 degrees	32.0	Yes	
	Arm 3				38.0	Yes	
	Arm 4				48.0	Yes	
Entry kerb radius	Arm 1	r	3.19		81.0	Yes	
	Arm 2			r value between 10m to 100m	29.2	Yes	
	Arm 3				46.9	Yes	
	Arm 4				32.1	Yes	
Entry path radius	Arm 1	length of a(ent)	3.20 to 3.26		83.8	Yes	
	Arm 2			a value ≤ 100m for 25m length	64.4	Yes	
	Arm 3				64.7	Yes	
	Arm 4				88.3	Yes	
Exit width	Arm 1	ew	3.28		7.4	Yes	
	Arm 2			ew values similar to entry width	6.2	Yes	
	Arm 3				6.7	Yes	
	Arm 4				7.1	Yes	
Exit kerb radius	Arm 1	a(exit)	3.29		72.7	Yes	
	Arm 2			a values between 15m to 100m	71.5	Yes	
	Arm 3				N/A	N/A	As per the existing situation.
	Arm 4				68.5	Yes	
Visibility on Approach	Arm 1	va	3.37		94.0	Yes	In accordance with Annex B of "**Design & Maintenance Guidance for Local Authority Roads - Provision of Road Restraint Systems on Local Authority Roads**", the curve design speeds on these approaches are such that the forward visibility requirements are lower than the achieved. As discussed, appropriate visibility screening measures Could be installed following further discussions with WSCC, National Highways and SDNPA.
	Arm 2			To be in accordance with CD109	96.0	Yes	
	Arm 3				69.4	Yes	
	Arm 4				215.0	Yes	
Visibility on Entry	Arm 1	ve	3.43		70.0	Yes	Assume no construction on central island
	Arm 2			Visibility distance of 40m for ICD 40m to 60m rounabouts	70.0	Yes	Assume no construction on central island
	Arm 3				70.0	Yes	Assume no construction on central island
	Arm 4				70.0	Yes	Assume no construction on central island

APPENDIX 19.4
DMRB CD 119 COMPLIANCE CHECKS

A27 Slips Roundabout

	Approach Arm	A283 (NW)	A27 (NE)	A27 (SE)	A283 (SW)	Notes
For Curve Design Speed	**R - Curve Radius (m)**	77	30	46	35	*Refer to Plans*
	e - Super-elevation	0	0	0	0	*Assumed to be 0*
	f - Side friction factor	0.1	0.1	0.1	0.1	*> 110km/h- Refer to Annex B table*
	Vdesign (km/h)	31.271393	19.519221	24.17022962	21.083169	*Curve Design Formula - Square-root of 127 x R x (e x f)*
For SSD Calcs	**v - Speed of vehicle (m/s)**	8.6865049	5.4220103	6.713958044	5.8564404	*Vdesign (km/h) x 0.621371*
	t - driver perception-reaction time (m/s)	2	2	2	2	*(MfS 2)*
	d - deceleration rate (m/s)	2.4525	2.4525	2.4525	2.4525	*0.25 x 9.81 (MfS 2)*
	a - longitudinal gradient	0	0	0	0	*Assumed to be 0*
	SSD requirement	32.756367	46.893557	68.70387259	53.770674	*SSD = vt + v^2/(2(d+0.1a))*
	SSD (rounded)	33	47	69	54	*Rounded*

Annex B (Extract)

The Curve design speed can be calculated from the road standards using the following formula:

$$V_{design} = \sqrt{127.R.(e+f)}$$

R = curve radius in metres
e = super-elevation or crossfall in metres per metre
f = side friction factor
and the resultant V_{design} is in km/h.

Several studies aimed at determining the maximum side-friction factors (f) that are comfortable for drivers have been conducted. Some of the results from these studies (AASHTO, 1994) are tabulated below and these results can be used to select the appropriate f value to calculate the Curve design speed.

SPEED (KM/H)	COMFORTABLE SIDE-FRICTION FACTOR
40	0.21
50	0.18
55-80	0.15
> 110	0.10

The side-friction factors that are employed in the design of horizontal curves should accommodate the safety and comfort of the intended users.[18]. The side-friction factor is associated to the SCRIM value at a particular site

MfS 2 - SSD Formula

10.1.5 The basic formula for calculating SSD (in metres) is:

$SSD = vt + v^2/2(d+0.1a)$

where:
v = speed (m/s)
t = driver perception-reaction time (seconds)
d = deceleration (m/s^2)
a = longitudinal gradient (%)
(+ for upgrades and - for downgrades)

APPENDIX 20.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 9 – A283 / UPPER SHOREHAM ROAD ROUNDABOUT

20.1 ARCADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)

20.2 Proposed Junction Improvements

20.3 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 9 (Upper Shoreham Road) Existing.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 9 (Upper Shoreham Rd)
Report generation date: 20/01/2022 13:49:23

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 20.1
ARCADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
1 - Upper Shoreham Road	6.4	30.06	0.88	D	121.60	F	-18 % [3 - A283 North]	8.6	39.83	0.91	E	494.25	F	-35 % [3 - A283 North]
2 - A283 South	24.6	138.02	1.04	F				25.5	134.83	1.04	F			
3 - A283 North	49.8	196.10	1.10	F				239.2	1047.69	1.43	F			
Scenario 1 Total														
1 - Upper Shoreham Road	7.6	35.39	0.90	E	175.78	F	-21 % [3 - A283 North]	10.9	49.79	0.94	E	664.36	F	-39 % [3 - A283 North]
2 - A283 South	46.7	234.35	1.13	F				38.3	188.12	1.10	F			
3 - A283 North	61.8	261.48	1.13	F				305.6	1379.32	1.51	F			
Scenario 2 Total														
1 - Upper Shoreham Road	7.5	34.67	0.90	D	167.62	F	-20 % [3 - A283 North]	10.6	48.84	0.94	E	650.98	F	-39 % [3 - A283 North]
2 - A283 South	45.5	228.83	1.13	F				35.8	177.61	1.09	F			
3 - A283 North	58.6	245.06	1.12	F				300.6	1355.27	1.51	F			
Scenario 3 Total														
1 - Upper Shoreham Road	6.8	31.54	0.89	D	140.73	F	-19 % [3 - A283 North]	10.0	45.78	0.93	E	587.51	F	-37 % [3 - A283 North]
2 - A283 South	30.8	164.87	1.07	F				34.3	171.92	1.08	F			
3 - A283 North	54.7	225.00	1.11	F				274.7	1228.55	1.48	F			
Scenario 4 Total														
1 - Upper Shoreham Road	7.2	33.25	0.89	D	154.53	F	-19 % [3 - A283 North]	9.5	43.95	0.93	E	586.28	F	-37 % [3 - A283 North]
2 - A283 South	45.8	230.18	1.13	F				30.6	156.46	1.07	F			
3 - A283 North	52.2	210.99	1.10	F				276.5	1231.09	1.48	F			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	121.60	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-18	3 - A283 North

Arms

Arms

Arm	Name	Description
1	Upper Shoreham Road	
2	A283 South	
3	A283 North	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Upper Shoreham Road	4.70	4.70	6.50	8.9	15.90	9.00	0.0	
2 - A283 South	3.60	3.60	4.50	2.8	17.70	12.20	0.0	✓
3 - A283 North	4.00	4.00	4.50	0.8	15.40	7.90	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Upper Shoreham Road	0.697	1131
2 - A283 South	0.525	923
3 - A283 North	0.524	902

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	744	100.000
2 - A283 South		ONE HOUR	✓	564	100.000
3 - A283 North		ONE HOUR	✓	790	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	565
	2 - A283 South	202	0	362
	3 - A283 North	502	286	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.88	30.06	6.4	D	683	1024
2 - A283 South	1.04	138.02	24.6	F	518	776
3 - A283 North	1.10	196.10	49.8	F	725	1087

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	560	140	213	983	0.570	555	524	0.0	1.3	8.320	A
2 - A283 South	425	106	425	700	0.607	419	343	0.0	1.5	12.549	B
3 - A283 North	595	149	152	822	0.724	585	692	0.0	2.5	14.638	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	669	167	254	954	0.701	665	625	1.3	2.2	12.285	B
2 - A283 South	507	127	509	656	0.773	501	410	1.5	3.1	22.320	C
3 - A283 North	710	178	182	806	0.881	697	828	2.5	5.8	29.632	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	819	205	283	934	0.877	805	702	2.2	5.8	25.454	D
2 - A283 South	621	155	616	600	1.036	571	472	3.1	15.5	76.139	F
3 - A283 North	870	217	208	793	1.097	777	980	5.8	29.0	96.094	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	819	205	287	931	0.880	817	712	5.8	6.4	30.057	D
2 - A283 South	621	155	626	595	1.044	584	478	15.5	24.6	138.018	F
3 - A283 North	870	217	213	790	1.101	787	997	29.0	49.8	192.599	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	669	167	282	934	0.716	684	705	6.4	2.6	15.149	C
2 - A283 South	507	127	524	648	0.782	588	442	24.6	4.4	76.985	F
3 - A283 North	710	178	213	790	0.899	774	899	49.8	33.8	196.099	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	560	140	262	949	0.590	565	615	2.6	1.5	9.487	A
2 - A283 South	425	106	433	696	0.610	436	394	4.4	1.6	14.372	B
3 - A283 North	595	149	158	819	0.726	718	710	33.8	3.0	61.819	F

2033 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	494.25	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	755	100.000
2 - A283 South		ONE HOUR	✓	596	100.000
3 - A283 North		ONE HOUR	✓	1007	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	501
	2 - A283 South	223	3	370
	3 - A283 North	597	409	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.91	39.83	8.6	E	693	1039
2 - A283 South	1.04	134.83	25.5	F	547	820
3 - A283 North	1.43	1047.69	239.2	F	924	1386

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	568	142	297	924	0.615	562	602	0.0	1.6	9.787	A
2 - A283 South	449	112	381	723	0.621	442	478	0.0	1.6	12.566	B
3 - A283 North	758	190	175	810	0.936	724	648	0.0	8.5	34.191	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	679	170	321	907	0.748	674	671	1.6	2.8	15.100	C
2 - A283 South	536	134	457	683	0.784	529	538	1.6	3.3	22.370	C
3 - A283 North	905	226	210	792	1.143	783	776	8.5	39.0	124.304	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	831	208	319	909	0.914	812	697	2.8	7.6	32.076	D
2 - A283 South	656	164	550	634	1.035	605	580	3.3	16.0	74.307	F
3 - A283 North	1109	277	240	776	1.429	775	916	39.0	122.4	384.696	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	831	208	318	910	0.914	827	701	7.6	8.6	39.832	E
2 - A283 South	656	164	561	629	1.043	618	584	16.0	25.5	134.827	F
3 - A283 North	1109	277	245	773	1.434	773	933	122.4	206.3	772.110	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	679	170	318	909	0.746	701	699	8.6	3.1	18.762	C
2 - A283 South	536	134	475	674	0.795	618	544	25.5	4.8	79.436	F
3 - A283 North	905	226	244	774	1.170	774	850	206.3	239.2	1036.980	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	568	142	329	902	0.630	574	656	3.1	1.8	11.159	B
2 - A283 South	449	112	389	719	0.624	461	514	4.8	1.7	14.573	B
3 - A283 North	758	190	182	806	0.940	803	668	239.2	228.0	1047.689	F

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	175.78	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-21	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	753	100.000
2 - A283 South		ONE HOUR	✓	608	100.000
3 - A283 North		ONE HOUR	✓	818	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	574
	2 - A283 South	202	0	406
	3 - A283 North	507	309	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.90	35.39	7.6	E	691	1036
2 - A283 South	1.13	234.35	46.7	F	558	837
3 - A283 North	1.13	261.48	61.8	F	751	1126

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	567	142	230	971	0.584	561	527	0.0	1.4	8.678	A
2 - A283 South	458	114	432	697	0.657	450	360	0.0	1.8	14.237	B
3 - A283 North	616	154	152	822	0.749	605	730	0.0	2.8	15.858	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	677	169	273	941	0.719	673	626	1.4	2.4	13.198	B
2 - A283 South	547	137	517	652	0.839	536	428	1.8	4.4	28.948	D
3 - A283 North	735	184	181	807	0.911	718	873	2.8	7.2	34.752	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	829	207	299	922	0.899	812	685	2.4	6.8	28.813	D
2 - A283 South	669	167	624	596	1.124	582	487	4.4	26.2	112.509	F
3 - A283 North	901	225	197	799	1.128	788	1009	7.2	35.5	112.523	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	829	207	302	920	0.901	826	691	6.8	7.6	35.390	E
2 - A283 South	669	167	635	590	1.134	587	493	26.2	46.7	234.355	F
3 - A283 North	901	225	198	798	1.129	795	1023	35.5	61.8	231.731	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	677	169	296	925	0.732	696	694	7.6	2.9	16.846	C
2 - A283 South	547	137	535	642	0.851	629	457	46.7	26.2	211.165	F
3 - A283 North	735	184	212	791	0.930	778	952	61.8	51.1	261.478	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	567	142	300	922	0.615	572	675	2.9	1.6	10.416	B
2 - A283 South	458	114	440	692	0.661	554	432	26.2	2.1	43.121	E
3 - A283 North	616	154	186	804	0.766	789	808	51.1	7.9	141.940	F

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	664.36	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-39	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	762	100.000
2 - A283 South		ONE HOUR	✓	623	100.000
3 - A283 North		ONE HOUR	✓	1070	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	508
	2 - A283 South	223	3	397
	3 - A283 North	605	464	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.94	49.79	10.9	E	699	1049
2 - A283 South	1.10	188.12	38.3	F	572	858
3 - A283 North	1.51	1379.32	305.6	F	982	1473

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	143	329	902	0.636	567	598	0.0	1.7	10.554	B
2 - A283 South	469	117	386	720	0.651	462	510	0.0	1.8	13.575	B
3 - A283 North	806	201	175	810	0.995	753	673	0.0	13.2	45.721	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	685	171	345	891	0.769	679	652	1.7	3.1	16.603	C
2 - A283 South	560	140	463	680	0.823	551	562	1.8	4.0	26.176	D
3 - A283 North	962	240	209	792	1.214	788	805	13.2	56.6	173.165	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	839	210	342	893	0.939	815	671	3.1	9.1	37.553	E
2 - A283 South	686	171	555	632	1.085	614	602	4.0	22.1	94.306	F
3 - A283 North	1178	295	233	779	1.511	779	935	56.6	156.3	500.576	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	839	210	341	894	0.939	832	673	9.1	10.9	49.794	E
2 - A283 South	686	171	566	626	1.096	621	607	22.1	38.3	188.118	F
3 - A283 North	1178	295	236	778	1.515	778	951	156.3	256.4	963.821	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	685	171	339	895	0.766	714	679	10.9	3.5	22.531	C
2 - A283 South	560	140	486	668	0.839	651	567	38.3	15.6	154.524	F
3 - A283 North	962	240	245	773	1.244	773	892	256.4	303.6	1297.103	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	143	349	888	0.646	580	646	3.5	1.9	11.942	B
2 - A283 South	469	117	395	716	0.655	523	534	15.6	2.0	23.748	C
3 - A283 North	806	201	197	798	1.009	798	721	303.6	305.6	1379.320	F

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	167.62	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-20	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	752	100.000
2 - A283 South		ONE HOUR	✓	606	100.000
3 - A283 North		ONE HOUR	✓	812	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	573
	2 - A283 South	202	0	404
	3 - A283 North	505	305	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.90	34.67	7.5	D	690	1035
2 - A283 South	1.13	228.83	45.5	F	556	834
3 - A283 North	1.12	245.06	58.6	F	745	1118

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	566	142	227	973	0.582	561	525	0.0	1.4	8.623	A
2 - A283 South	456	114	431	697	0.655	449	357	0.0	1.8	14.140	B
3 - A283 North	611	153	152	822	0.744	600	728	0.0	2.7	15.569	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	676	169	270	943	0.717	672	625	1.4	2.4	13.058	B
2 - A283 South	545	136	516	652	0.835	535	425	1.8	4.3	28.531	D
3 - A283 North	730	182	181	807	0.905	713	870	2.7	6.9	33.538	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	828	207	297	924	0.896	811	686	2.4	6.6	28.357	D
2 - A283 South	667	167	623	596	1.119	582	485	4.3	25.6	110.417	F
3 - A283 North	894	224	197	798	1.120	786	1008	6.9	33.8	108.234	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	828	207	300	922	0.898	825	693	6.6	7.5	34.674	D
2 - A283 South	667	167	634	591	1.130	588	492	25.6	45.5	228.829	F
3 - A283 North	894	224	199	797	1.121	795	1022	33.8	58.6	221.248	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	676	169	294	926	0.730	694	696	7.5	2.9	16.602	C
2 - A283 South	545	136	534	643	0.847	629	454	45.5	24.4	202.886	F
3 - A283 North	730	182	212	790	0.924	777	950	58.6	46.8	245.059	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	566	142	295	925	0.612	571	670	2.9	1.6	10.296	B
2 - A283 South	456	114	439	693	0.659	545	427	24.4	2.1	38.765	E
3 - A283 North	611	153	184	805	0.759	781	801	46.8	4.5	122.036	F

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	650.98	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-39	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	761	100.000
2 - A283 South		ONE HOUR	✓	618	100.000
3 - A283 North		ONE HOUR	✓	1066	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	507
	2 - A283 South	223	3	392
	3 - A283 North	604	461	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.94	48.84	10.6	E	698	1047
2 - A283 South	1.09	177.61	35.8	F	567	851
3 - A283 North	1.51	1355.27	300.6	F	978	1467

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	573	143	328	903	0.635	566	599	0.0	1.7	10.500	B
2 - A283 South	465	116	385	721	0.645	458	509	0.0	1.7	13.382	B
3 - A283 North	803	201	175	810	0.991	751	669	0.0	12.8	44.881	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	684	171	344	891	0.768	679	653	1.7	3.1	16.488	C
2 - A283 South	556	139	462	681	0.816	547	561	1.7	3.9	25.412	D
3 - A283 North	958	240	209	792	1.210	788	800	12.8	55.4	169.756	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	838	209	340	894	0.937	814	673	3.1	9.0	37.066	E
2 - A283 South	680	170	554	632	1.076	612	601	3.9	20.9	90.351	F
3 - A283 North	1174	293	235	779	1.507	778	932	55.4	154.2	493.472	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	838	209	340	894	0.937	831	675	9.0	10.6	48.842	E
2 - A283 South	680	170	565	626	1.086	621	606	20.9	35.8	177.612	F
3 - A283 North	1174	293	238	777	1.511	777	948	154.2	253.4	953.033	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	684	171	338	896	0.764	713	682	10.6	3.5	22.134	C
2 - A283 South	556	139	485	669	0.831	650	566	35.8	12.1	139.027	F
3 - A283 North	958	240	247	772	1.241	772	888	253.4	299.9	1281.906	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	573	143	349	888	0.645	579	643	3.5	1.9	11.901	B
2 - A283 South	465	116	394	716	0.650	506	534	12.1	1.9	20.163	C
3 - A283 North	803	201	193	801	1.002	800	707	299.9	300.6	1355.267	F

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	140.73	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-19	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	746	100.000
2 - A283 South		ONE HOUR	✓	578	100.000
3 - A283 North		ONE HOUR	✓	801	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	567
	2 - A283 South	202	0	376
	3 - A283 North	504	295	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.89	31.54	6.8	D	685	1027
2 - A283 South	1.07	164.87	30.8	F	530	796
3 - A283 North	1.11	225.00	54.7	F	735	1103

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	562	140	220	978	0.574	556	525	0.0	1.3	8.439	A
2 - A283 South	435	109	427	699	0.622	429	350	0.0	1.6	13.030	B
3 - A283 North	603	151	152	822	0.734	593	703	0.0	2.6	15.092	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	671	168	261	949	0.707	667	625	1.3	2.3	12.573	B
2 - A283 South	520	130	511	655	0.794	512	417	1.6	3.4	24.074	C
3 - A283 North	720	180	182	806	0.893	705	842	2.6	6.3	31.522	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	821	205	290	929	0.884	806	696	2.3	6.1	26.433	D
2 - A283 South	636	159	618	599	1.063	576	478	3.4	18.5	86.283	F
3 - A283 North	882	220	205	794	1.110	781	990	6.3	31.6	102.671	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	821	205	293	927	0.886	819	705	6.1	6.8	31.544	D
2 - A283 South	636	159	628	594	1.072	587	484	18.5	30.8	164.875	F
3 - A283 North	882	220	208	792	1.113	789	1006	31.6	54.7	208.850	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	671	168	286	932	0.720	687	705	6.8	2.7	15.578	C
2 - A283 South	520	130	527	647	0.804	620	447	30.8	5.8	111.028	F
3 - A283 North	720	180	219	787	0.915	773	927	54.7	41.6	225.004	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	562	140	280	936	0.600	566	636	2.7	1.5	9.860	A
2 - A283 South	435	109	435	695	0.626	451	412	5.8	1.7	15.664	C
3 - A283 North	603	151	160	818	0.737	756	726	41.6	3.3	90.930	F

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	587.51	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-37	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	762	100.000
2 - A283 South		ONE HOUR	✓	614	100.000
3 - A283 North		ONE HOUR	✓	1042	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	508
	2 - A283 South	223	3	388
	3 - A283 North	605	436	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.93	45.78	10.0	E	699	1049
2 - A283 South	1.08	171.92	34.3	F	563	845
3 - A283 North	1.48	1228.55	274.7	F	956	1434

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	143	313	913	0.628	567	603	0.0	1.6	10.226	B
2 - A283 South	462	116	386	720	0.642	455	494	0.0	1.7	13.266	B
3 - A283 North	784	196	175	810	0.969	741	667	0.0	10.8	40.128	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	685	171	333	899	0.762	680	663	1.6	3.0	15.982	C
2 - A283 South	552	138	463	680	0.811	544	549	1.7	3.8	24.961	C
3 - A283 North	937	234	209	792	1.183	787	797	10.8	48.4	149.883	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	839	210	329	902	0.930	817	684	3.0	8.5	35.384	E
2 - A283 South	676	169	556	631	1.071	610	590	3.8	20.2	88.264	F
3 - A283 North	1147	287	235	778	1.474	778	931	48.4	140.7	446.605	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	839	210	329	902	0.930	833	687	8.5	10.0	45.779	E
2 - A283 South	676	169	567	625	1.081	620	595	20.2	34.3	171.915	F
3 - A283 North	1147	287	239	776	1.478	776	948	140.7	233.4	876.432	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	685	171	327	904	0.758	711	693	10.0	3.4	20.854	C
2 - A283 South	552	138	484	669	0.825	650	554	34.3	9.8	129.852	F
3 - A283 North	937	234	249	771	1.214	771	886	233.4	274.7	1180.696	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	143	338	896	0.640	580	651	3.4	1.8	11.601	B
2 - A283 South	462	116	395	716	0.646	494	523	9.8	1.9	18.346	C
3 - A283 North	784	196	189	802	0.978	800	699	274.7	271.0	1228.549	F

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	154.53	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-19	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	751	100.000
2 - A283 South		ONE HOUR	✓	607	100.000
3 - A283 North		ONE HOUR	✓	800	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	572
	2 - A283 South	202	0	405
	3 - A283 North	503	295	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.89	33.25	7.2	D	689	1034
2 - A283 South	1.13	230.18	45.8	F	557	835
3 - A283 North	1.10	210.99	52.2	F	734	1101

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	565	141	220	978	0.578	560	524	0.0	1.3	8.508	A
2 - A283 South	457	114	430	697	0.655	450	350	0.0	1.8	14.161	B
3 - A283 North	602	151	152	822	0.733	592	728	0.0	2.6	15.044	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	675	169	262	949	0.711	671	624	1.3	2.4	12.766	B
2 - A283 South	546	136	516	653	0.836	536	417	1.8	4.3	28.617	D
3 - A283 North	719	180	181	807	0.891	704	870	2.6	6.3	31.263	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	827	207	291	928	0.891	811	690	2.4	6.4	27.436	D
2 - A283 South	668	167	623	596	1.121	582	479	4.3	25.8	110.992	F
3 - A283 North	881	220	197	798	1.103	784	1008	6.3	30.5	99.596	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	827	207	295	926	0.893	824	698	6.4	7.2	33.255	D
2 - A283 South	668	167	633	591	1.131	588	486	25.8	45.8	230.177	F
3 - A283 North	881	220	199	797	1.105	794	1022	30.5	52.2	199.569	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	675	169	288	931	0.726	693	700	7.2	2.8	16.110	C
2 - A283 South	546	136	532	644	0.848	630	448	45.8	24.7	204.454	F
3 - A283 North	719	180	212	790	0.910	776	950	52.2	38.1	210.986	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	565	141	275	940	0.602	570	650	2.8	1.5	9.875	A
2 - A283 South	457	114	439	693	0.659	548	407	24.7	2.1	39.527	E
3 - A283 North	602	151	184	805	0.748	741	802	38.1	3.5	85.102	F

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	586.28	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-37	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	759	100.000
2 - A283 South		ONE HOUR	✓	607	100.000
3 - A283 North		ONE HOUR	✓	1043	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	505
	2 - A283 South	223	3	381
	3 - A283 North	607	435	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.93	43.95	9.5	E	696	1045
2 - A283 South	1.07	156.46	30.6	F	557	835
3 - A283 North	1.48	1231.09	276.5	F	957	1436

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	571	143	312	914	0.626	565	605	0.0	1.6	10.149	B
2 - A283 South	457	114	384	722	0.633	450	493	0.0	1.7	12.979	B
3 - A283 North	785	196	175	810	0.970	742	659	0.0	10.9	40.324	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	682	171	331	900	0.758	677	664	1.6	2.9	15.760	C
2 - A283 South	546	136	460	682	0.801	538	548	1.7	3.6	23.875	C
3 - A283 North	938	234	209	792	1.184	786	789	10.9	48.7	150.792	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	836	209	328	903	0.926	814	687	2.9	8.2	34.408	D
2 - A283 South	668	167	553	633	1.056	609	589	3.6	18.4	82.455	F
3 - A283 North	1148	287	237	777	1.477	777	925	48.7	141.5	449.956	F

17:30 - 17:45

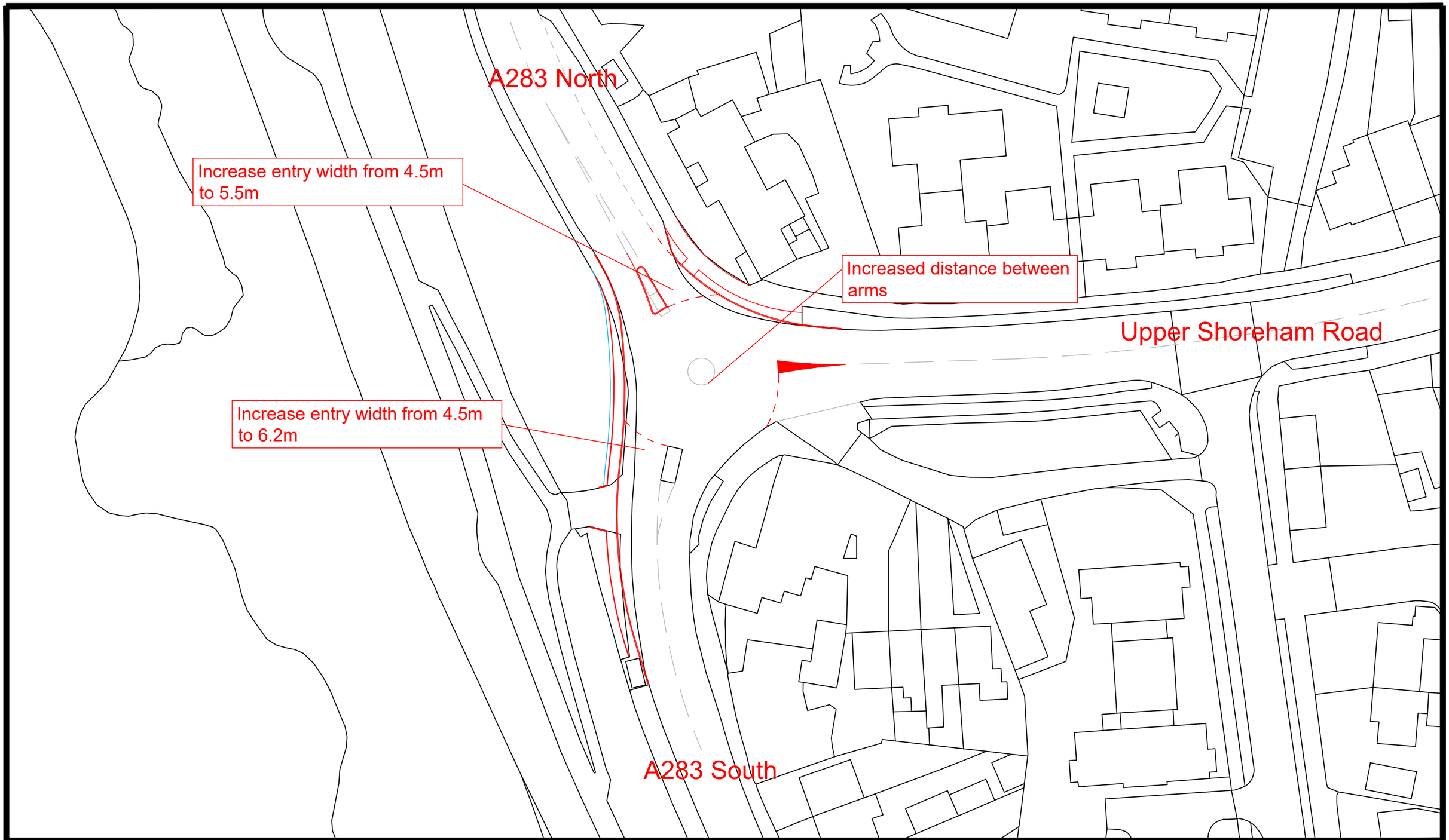
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	836	209	327	903	0.925	831	690	8.2	9.5	43.946	E
2 - A283 South	668	167	564	627	1.066	620	593	18.4	30.6	156.461	F
3 - A283 North	1148	287	242	775	1.482	775	942	141.5	234.9	882.605	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	682	171	326	904	0.755	707	695	9.5	3.3	20.189	C
2 - A283 South	546	136	481	671	0.813	643	552	30.6	6.2	108.015	F
3 - A283 North	938	234	249	771	1.216	771	875	234.9	276.5	1187.108	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	571	143	338	896	0.638	577	649	3.3	1.8	11.503	B
2 - A283 South	457	114	392	717	0.637	474	523	6.2	1.8	15.802	C
3 - A283 North	785	196	184	805	0.975	802	683	276.5	272.2	1231.093	F



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NOTES

1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A283 / UPPER SHOREHAM ROAD

Date	Drawn		
12/11/2021	MAW		
Checked	Date	Approved	Date
Scale: 1/500@A3	Drg No.: APPENDIX 20.2		Rev.

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 9 (Upper Shoreham Road) Proposed.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 9 (Upper Shoreham Rd)
Report generation date: 20/01/2022 14:09:40

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - Upper Shoreham Road	9.2	42.76	0.92	E	82.37	F	-16 % [3 - A283 North]	14.3	64.54	0.97	F	471.89	F	-35 % [3 - A283 North]
2 - A283 South	4.3	24.09	0.82	C				3.8	20.77	0.80	C			
3 - A283 North	43.5	162.14	1.08	F				250.6	1024.66	1.44	F			
Scenario 2 Total														
1 - Upper Shoreham Road	9.0	41.76	0.92	E	78.45	F	-15 % [3 - A283 North]	14.0	63.34	0.96	F	463.40	F	-35 % [3 - A283 North]
2 - A283 South	4.2	23.68	0.82	C				3.6	20.11	0.79	C			
3 - A283 North	40.6	153.30	1.07	F				246.5	1005.99	1.44	F			
Scenario 3 Total														
1 - Upper Shoreham Road	8.1	37.78	0.91	E	70.58	F	-14 % [3 - A283 North]	12.9	58.82	0.96	F	409.47	F	-33 % [3 - A283 North]
2 - A283 South	3.3	19.49	0.78	C				3.6	19.78	0.79	C			
3 - A283 North	35.7	137.99	1.06	F				222.2	895.51	1.40	F			
Scenario 4 Total														
1 - Upper Shoreham Road	8.5	39.68	0.91	E	71.04	F	-14 % [3 - A283 North]	12.3	56.43	0.95	F	412.09	F	-33 % [3 - A283 North]
2 - A283 South	4.2	23.79	0.82	C				3.4	18.85	0.78	C			
3 - A283 North	35.2	136.33	1.05	F				223.2	899.77	1.40	F			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 20.3
ARCADY OUTPUTS: PROPOSED DEVELOPMENT SCENARIOS
(WITH PROPOSED JUNCTION IMPROVEMENTS)

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15			
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	82.37	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-16	3 - A283 North

Arms

Arms

Arm	Name	Description
1	Upper Shoreham Road	
2	A283 South	
3	A283 North	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Upper Shoreham Road	4.70	4.70	6.50	8.9	16.80	9.80	0.0	
2 - A283 South	3.60	3.60	6.20	22.1	18.30	14.10	0.0	✓
3 - A283 North	4.00	4.00	5.50	2.8	16.70	10.00	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Upper Shoreham Road	0.698	1119
2 - A283 South	0.589	1188
3 - A283 North	0.540	958

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	753	100.000
2 - A283 South		ONE HOUR	✓	608	100.000
3 - A283 North		ONE HOUR	✓	818	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	574
	2 - A283 South	202	0	406
	3 - A283 North	507	309	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.92	42.76	9.2	E	691	1036
2 - A283 South	0.82	24.09	4.3	C	558	837
3 - A283 North	1.08	162.14	43.5	F	751	1126

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	567	142	231	958	0.592	561	529	0.0	1.4	8.959	A
2 - A283 South	458	114	432	933	0.490	454	360	0.0	0.9	7.452	A
3 - A283 North	616	154	153	875	0.704	607	732	0.0	2.3	13.022	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	677	169	275	927	0.731	672	632	1.4	2.6	13.915	B
2 - A283 South	547	137	517	883	0.619	544	431	0.9	1.6	10.540	B
3 - A283 North	735	184	183	859	0.856	724	878	2.3	5.0	24.892	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	829	207	311	902	0.919	808	729	2.6	7.8	32.752	D
2 - A283 South	669	167	621	822	0.815	660	498	1.6	3.9	21.161	C
3 - A283 North	901	225	223	837	1.075	817	1059	5.0	25.9	83.174	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	829	207	316	898	0.923	824	740	7.8	9.2	42.764	E
2 - A283 South	669	167	633	815	0.822	668	506	3.9	4.3	24.089	C
3 - A283 North	901	225	225	836	1.077	830	1076	25.9	43.5	162.138	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	677	169	318	897	0.755	701	707	9.2	3.3	20.185	C
2 - A283 South	547	137	539	870	0.628	557	480	4.3	1.7	11.830	B
3 - A283 North	735	184	188	856	0.859	837	908	43.5	18.0	137.082	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	567	142	258	939	0.604	574	576	3.3	1.6	10.041	B
2 - A283 South	458	114	441	928	0.493	461	390	1.7	1.0	7.761	A
3 - A283 North	616	154	155	874	0.705	678	747	18.0	2.5	23.741	C

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	471.89	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	762	100.000
2 - A283 South		ONE HOUR	✓	623	100.000
3 - A283 North		ONE HOUR	✓	1070	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	508
	2 - A283 South	223	3	397
	3 - A283 North	605	464	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.97	64.54	14.3	F	699	1049
2 - A283 South	0.80	20.77	3.8	C	572	858
3 - A283 North	1.44	1024.66	250.6	F	982	1473

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	143	338	883	0.650	567	610	0.0	1.8	11.134	B
2 - A283 South	469	117	386	960	0.488	465	518	0.0	0.9	7.216	A
3 - A283 North	806	201	176	862	0.934	772	675	0.0	8.5	32.416	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	685	171	365	864	0.793	678	680	1.8	3.5	18.716	C
2 - A283 South	560	140	462	916	0.612	558	582	0.9	1.5	9.992	A
3 - A283 North	962	240	211	844	1.140	834	808	8.5	40.4	120.154	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	839	210	359	868	0.966	808	716	3.5	11.3	45.002	E
2 - A283 South	686	171	550	864	0.794	678	617	1.5	3.5	18.639	C
3 - A283 North	1178	295	257	819	1.438	819	971	40.4	130.2	384.401	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	839	210	359	868	0.966	827	718	11.3	14.3	64.536	F
2 - A283 South	686	171	563	856	0.801	685	623	3.5	3.8	20.766	C
3 - A283 North	1178	295	259	818	1.441	818	988	130.2	220.4	768.424	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	685	171	368	862	0.795	725	689	14.3	4.3	31.427	D
2 - A283 South	560	140	494	897	0.625	568	600	3.8	1.7	11.223	B
3 - A283 North	962	240	216	841	1.144	841	846	220.4	250.6	1011.270	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	143	375	857	0.669	583	662	4.3	2.1	13.509	B
2 - A283 South	469	117	397	954	0.492	472	561	1.7	1.0	7.517	A
3 - A283 North	806	201	179	861	0.936	858	690	250.6	237.6	1024.660	F

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	78.45	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-15	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	752	100.000
2 - A283 South		ONE HOUR	✓	606	100.000
3 - A283 North		ONE HOUR	✓	812	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	573
	2 - A283 South	202	0	404
	3 - A283 North	505	305	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.92	41.76	9.0	E	690	1035
2 - A283 South	0.82	23.68	4.2	C	556	834
3 - A283 North	1.07	153.30	40.6	F	745	1118

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	566	142	228	960	0.590	561	528	0.0	1.4	8.899	A
2 - A283 South	456	114	431	934	0.489	452	357	0.0	0.9	7.422	A
3 - A283 North	611	153	153	875	0.699	602	730	0.0	2.2	12.828	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	676	169	272	929	0.728	671	631	1.4	2.5	13.741	B
2 - A283 South	545	136	516	884	0.617	542	427	0.9	1.6	10.471	B
3 - A283 North	730	182	183	859	0.850	719	875	2.2	4.8	24.158	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	828	207	308	904	0.916	808	730	2.5	7.6	32.169	D
2 - A283 South	667	167	621	822	0.812	658	495	1.6	3.8	20.885	C
3 - A283 North	894	224	223	837	1.068	815	1056	4.8	24.5	79.799	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	828	207	314	900	0.920	823	741	7.6	9.0	41.760	E
2 - A283 South	667	167	632	815	0.819	666	504	3.8	4.2	23.685	C
3 - A283 North	894	224	225	836	1.069	830	1073	24.5	40.6	153.295	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	676	169	316	898	0.753	699	707	9.0	3.3	19.790	C
2 - A283 South	545	136	537	871	0.625	555	477	4.2	1.7	11.711	B
3 - A283 North	730	182	188	856	0.852	836	904	40.6	14.2	123.810	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	566	142	249	945	0.599	573	565	3.3	1.5	9.850	A
2 - A283 South	456	114	441	928	0.492	459	381	1.7	1.0	7.727	A
3 - A283 North	611	153	155	874	0.700	658	744	14.2	2.5	20.017	C

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	463.40	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	761	100.000
2 - A283 South		ONE HOUR	✓	618	100.000
3 - A283 North		ONE HOUR	✓	1066	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	507
	2 - A283 South	223	3	392
	3 - A283 North	604	461	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.96	63.34	14.0	F	698	1047
2 - A283 South	0.79	20.11	3.6	C	567	851
3 - A283 North	1.44	1005.99	246.5	F	978	1467

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	573	143	336	884	0.648	566	610	0.0	1.8	11.068	B
2 - A283 South	465	116	385	961	0.484	462	516	0.0	0.9	7.159	A
3 - A283 North	803	201	176	862	0.931	769	670	0.0	8.3	31.860	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	684	171	364	865	0.791	677	681	1.8	3.5	18.563	C
2 - A283 South	556	139	461	916	0.607	553	581	0.9	1.5	9.860	A
3 - A283 North	958	240	211	844	1.136	834	803	8.3	39.4	117.637	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	838	209	358	869	0.964	807	717	3.5	11.1	44.428	E
2 - A283 South	680	170	549	864	0.788	673	616	1.5	3.4	18.149	C
3 - A283 North	1174	293	257	819	1.433	819	965	39.4	128.1	377.730	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	838	209	358	869	0.964	826	719	11.1	14.0	63.339	F
2 - A283 South	680	170	562	856	0.795	679	622	3.4	3.6	20.105	C
3 - A283 North	1174	293	259	818	1.436	818	982	128.1	217.2	757.138	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	684	171	367	862	0.793	723	689	14.0	4.3	30.704	D
2 - A283 South	556	139	492	898	0.619	563	598	3.6	1.7	11.008	B
3 - A283 North	958	240	216	841	1.139	841	840	217.2	246.5	996.027	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	573	143	374	858	0.668	582	662	4.3	2.1	13.418	B
2 - A283 South	465	116	396	954	0.488	468	560	1.7	1.0	7.447	A
3 - A283 North	803	201	179	861	0.932	858	685	246.5	232.7	1005.989	F

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	70.58	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-14	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	746	100.000
2 - A283 South		ONE HOUR	✓	578	100.000
3 - A283 North		ONE HOUR	✓	801	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	567
	2 - A283 South	202	0	376
	3 - A283 North	504	295	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.91	37.78	8.1	E	685	1027
2 - A283 South	0.78	19.49	3.3	C	530	796
3 - A283 North	1.06	137.99	35.7	F	735	1103

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	562	140	220	965	0.582	556	527	0.0	1.4	8.698	A
2 - A283 South	435	109	426	936	0.465	432	350	0.0	0.9	7.084	A
3 - A283 North	603	151	153	875	0.689	595	705	0.0	2.1	12.490	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	671	168	263	935	0.717	666	631	1.4	2.4	13.197	B
2 - A283 South	520	130	511	887	0.586	518	419	0.9	1.4	9.699	A
3 - A283 North	720	180	184	859	0.839	710	845	2.1	4.5	22.904	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	821	205	301	909	0.904	803	734	2.4	7.0	29.900	D
2 - A283 South	636	159	616	825	0.772	629	488	1.4	3.1	17.818	C
3 - A283 North	882	220	223	837	1.054	812	1022	4.5	22.1	74.001	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	821	205	307	905	0.908	817	746	7.0	8.1	37.778	E
2 - A283 South	636	159	626	819	0.778	636	498	3.1	3.3	19.494	C
3 - A283 North	882	220	225	836	1.055	828	1037	22.1	35.7	137.991	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	671	168	308	904	0.742	691	710	8.1	3.1	18.259	C
2 - A283 South	520	130	530	875	0.594	527	469	3.3	1.5	10.530	B
3 - A283 North	720	180	187	857	0.841	831	870	35.7	7.9	101.159	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	562	140	232	957	0.587	568	549	3.1	1.5	9.403	A
2 - A283 South	435	109	436	931	0.467	438	364	1.5	0.9	7.333	A
3 - A283 North	603	151	155	874	0.690	625	718	7.9	2.3	15.634	C

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	409.47	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-33	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	762	100.000
2 - A283 South		ONE HOUR	✓	614	100.000
3 - A283 North		ONE HOUR	✓	1042	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	508
	2 - A283 South	223	3	388
	3 - A283 North	605	436	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.96	58.82	12.9	F	699	1049
2 - A283 South	0.79	19.78	3.6	C	563	845
3 - A283 North	1.40	895.51	222.2	F	956	1434

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	143	319	896	0.640	567	613	0.0	1.7	10.729	B
2 - A283 South	462	116	386	960	0.481	459	500	0.0	0.9	7.127	A
3 - A283 North	784	196	176	862	0.910	756	668	0.0	7.1	28.768	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	685	171	351	874	0.784	679	691	1.7	3.3	17.858	C
2 - A283 South	552	138	462	915	0.603	550	568	0.9	1.5	9.784	A
3 - A283 North	937	234	211	844	1.110	831	801	7.1	33.6	103.301	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	839	210	346	877	0.957	811	729	3.3	10.4	42.160	E
2 - A283 South	676	169	552	862	0.784	669	605	1.5	3.3	17.915	C
3 - A283 North	1147	287	257	819	1.401	818	964	33.6	115.8	338.565	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	839	210	346	877	0.956	829	731	10.4	12.9	58.824	F
2 - A283 South	676	169	564	855	0.791	675	611	3.3	3.6	19.780	C
3 - A283 North	1147	287	259	818	1.403	817	980	115.8	198.3	690.173	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	685	171	355	871	0.787	720	701	12.9	4.1	28.040	D
2 - A283 South	552	138	491	899	0.614	560	585	3.6	1.6	10.853	B
3 - A283 North	937	234	215	841	1.113	841	835	198.3	222.2	895.512	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	574	143	362	866	0.662	582	674	4.1	2.0	12.994	B
2 - A283 South	462	116	396	954	0.484	465	547	1.6	1.0	7.399	A
3 - A283 North	784	196	179	861	0.911	857	683	222.2	204.0	895.204	F

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	71.04	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-14	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	751	100.000
2 - A283 South		ONE HOUR	✓	607	100.000
3 - A283 North		ONE HOUR	✓	800	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	3	176	572
	2 - A283 South	202	0	405
	3 - A283 North	503	295	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.91	39.68	8.5	E	689	1034
2 - A283 South	0.82	23.79	4.2	C	557	835
3 - A283 North	1.05	136.33	35.2	F	734	1101

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	565	141	220	965	0.586	560	526	0.0	1.4	8.775	A
2 - A283 South	457	114	430	934	0.489	453	350	0.0	0.9	7.427	A
3 - A283 North	602	151	153	875	0.688	594	730	0.0	2.1	12.460	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	675	169	263	935	0.722	671	630	1.4	2.5	13.408	B
2 - A283 South	546	136	515	884	0.617	543	419	0.9	1.6	10.485	B
3 - A283 North	719	180	183	859	0.838	710	875	2.1	4.5	22.788	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	827	207	301	908	0.910	808	733	2.5	7.3	30.950	D
2 - A283 South	668	167	620	822	0.813	659	488	1.6	3.9	20.982	C
3 - A283 North	881	220	223	837	1.052	811	1057	4.5	21.8	73.311	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	827	207	307	904	0.914	822	745	7.3	8.5	39.676	E
2 - A283 South	668	167	631	816	0.820	667	498	3.9	4.2	23.792	C
3 - A283 North	881	220	225	836	1.054	827	1073	21.8	35.2	136.327	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	675	169	308	904	0.747	697	709	8.5	3.1	18.890	C
2 - A283 South	546	136	535	872	0.626	556	469	4.2	1.7	11.706	B
3 - A283 North	719	180	188	856	0.840	829	903	35.2	7.7	99.171	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	565	141	232	957	0.591	572	547	3.1	1.5	9.505	A
2 - A283 South	457	114	440	929	0.492	460	364	1.7	1.0	7.729	A
3 - A283 North	602	151	155	874	0.689	624	744	7.7	2.3	15.505	C

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	8 - A283/Upper Shoreham Road	Mini-roundabout	1, 2, 3	412.09	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-33	3 - A283 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Upper Shoreham Road		ONE HOUR	✓	759	100.000
2 - A283 South		ONE HOUR	✓	607	100.000
3 - A283 North		ONE HOUR	✓	1043	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	10	244	505
	2 - A283 South	223	3	381
	3 - A283 North	607	435	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Upper Shoreham Road	2 - A283 South	3 - A283 North
From	1 - Upper Shoreham Road	0	0	0
	2 - A283 South	0	0	0
	3 - A283 North	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Upper Shoreham Road	0.95	56.43	12.3	F	696	1045
2 - A283 South	0.78	18.85	3.4	C	557	835
3 - A283 North	1.40	899.77	223.2	F	957	1436

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	571	143	319	896	0.637	565	614	0.0	1.7	10.645	B
2 - A283 South	457	114	384	961	0.475	453	499	0.0	0.9	7.037	A
3 - A283 North	785	196	176	862	0.910	757	661	0.0	7.1	28.891	D

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	682	171	350	874	0.780	676	692	1.7	3.3	17.587	C
2 - A283 South	546	136	460	917	0.595	544	567	0.9	1.4	9.586	A
3 - A283 North	938	234	211	844	1.112	831	792	7.1	33.9	103.884	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	836	209	345	878	0.952	809	730	3.3	10.1	40.998	E
2 - A283 South	668	167	549	864	0.774	661	604	1.4	3.2	17.212	C
3 - A283 North	1148	287	257	819	1.402	818	954	33.9	116.4	340.251	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	836	209	345	878	0.952	827	732	10.1	12.3	56.433	F
2 - A283 South	668	167	562	857	0.780	667	610	3.2	3.4	18.853	C
3 - A283 North	1148	287	259	818	1.405	817	970	116.4	199.1	693.027	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	682	171	354	871	0.783	716	702	12.3	4.0	26.796	D
2 - A283 South	546	136	486	901	0.606	553	584	3.4	1.6	10.542	B
3 - A283 North	938	234	215	841	1.114	841	824	199.1	223.2	899.244	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Upper Shoreham Road	571	143	361	867	0.659	579	675	4.0	2.0	12.829	B
2 - A283 South	457	114	394	956	0.478	460	546	1.6	0.9	7.294	A
3 - A283 North	785	196	179	861	0.912	857	675	223.2	205.2	899.765	F

APPENDIX 21.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 10 – A283 / A259 ROUNDABOUT

21.1 ARCADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)

21.2 Proposed Junction Improvements

21.3 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Path: D:\5201 Shoreham\Off-Site Junctions\Junction 10 (A259)
Report generation date: 21/01/2022 09:25:15

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 21.1
ARCADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
1 - A259 East	29.2	110.37	1.03	F	645.40	F	-36 % [2 - A259 West]	326.2	1373.32	1.65	F	583.01	F	-35 % [1 - A259 East]
2 - A259 West	356.4	1221.12	1.48	F				63.5	174.66	1.09	F			
3 - A283	1.3	8.80	0.58	A				9.8	45.86	0.93	E			
Scenario 1 Total														
1 - A259 East	38.2	136.75	1.06	F	725.79	F	-38 % [2 - A259 West]	364.6	1569.64	1.71	F	667.28	F	-36 % [1 - A259 East]
2 - A259 West	396.3	1375.82	1.52	F				68.6	194.68	1.10	F			
3 - A283	1.4	9.01	0.59	A				18.8	77.56	0.99	F			
Scenario 2 Total														
1 - A259 East	37.8	135.56	1.06	F	722.90	F	-38 % [2 - A259 West]	359.4	1545.09	1.70	F	655.57	F	-36 % [1 - A259 East]
2 - A259 West	394.4	1368.81	1.52	F				67.7	190.99	1.10	F			
3 - A283	1.4	8.93	0.59	A				18.3	75.80	0.99	F			
Scenario 3 Total														
1 - A259 East	32.2	119.00	1.04	F	668.83	F	-37 % [2 - A259 West]	347.8	1475.21	1.68	F	628.36	F	-35 % [1 - A259 East]
2 - A259 West	367.6	1267.39	1.49	F				66.5	186.84	1.10	F			
3 - A283	1.4	8.90	0.58	A				13.1	58.04	0.96	F			
Scenario 4 Total														
1 - A259 East	38.0	135.94	1.06	F	724.54	F	-38 % [2 - A259 West]	342.1	1452.39	1.68	F	616.14	F	-35 % [1 - A259 East]
2 - A259 West	393.9	1367.84	1.52	F				65.6	182.55	1.10	F			
3 - A283	1.4	8.71	0.58	A				13.2	58.65	0.96	F			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	645.40	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-36	2 - A259 West

Arms

Arms

Arm	Name	Description
1	A259 East	
2	A259 West	
3	A283	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - A259 East	4.00	4.00	8.00	4.5	20.00	17.40	0.0	✓
2 - A259 West	4.20	4.20	7.00	15.0	16.50	14.00	0.0	✓
3 - A283	4.80	4.80	8.70	5.9	20.00	19.60	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A259 East	0.639	1196
2 - A259 West	0.606	1164
3 - A283	0.844	1546

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	836	100.000
2 - A259 West		ONE HOUR	✓	1366	100.000
3 - A283		ONE HOUR	✓	505	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	141
	2 - A259 West	819	1	546
	3 - A283	171	333	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	22
	2 - A259 West	5	0	1
	3 - A283	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.03	110.37	29.2	F	767	1151
2 - A259 West	1.48	1221.12	356.4	F	1253	1880
3 - A283	0.58	8.80	1.3	A	463	695

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	629	157	251	965	0.652	622	714	0.0	1.8	10.294	B
2 - A259 West	1028	257	106	1050	0.980	976	766	0.0	13.2	36.499	E
3 - A283	380	95	586	987	0.385	378	496	0.0	0.6	5.885	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	752	188	300	935	0.804	744	772	1.8	3.7	18.144	C
2 - A259 West	1228	307	127	1035	1.186	1030	917	13.2	62.7	144.373	F
3 - A283	454	113	619	959	0.473	453	538	0.6	0.9	7.097	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	920	230	367	894	1.030	859	801	3.7	19.0	61.750	F
2 - A259 West	1504	376	147	1021	1.473	1021	1080	62.7	183.5	441.444	F
3 - A283	556	139	614	964	0.577	554	554	0.9	1.3	8.748	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	920	230	368	893	1.030	880	800	19.0	29.2	110.372	F
2 - A259 West	1504	376	151	1018	1.477	1018	1098	183.5	304.9	866.653	F
3 - A283	556	139	612	965	0.576	556	557	1.3	1.3	8.798	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	752	188	302	934	0.805	849	768	29.2	4.9	58.450	F
2 - A259 West	1228	307	145	1022	1.201	1022	1006	304.9	356.4	1162.751	F
3 - A283	454	113	615	963	0.471	456	553	1.3	0.9	7.122	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	629	157	253	964	0.653	641	756	4.9	1.9	11.533	B
2 - A259 West	1028	257	110	1048	0.982	1045	784	356.4	352.3	1221.124	F
3 - A283	380	95	628	952	0.399	381	526	0.9	0.7	6.318	A

2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	583.01	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1064	100.000
2 - A259 West		ONE HOUR	✓	1092	100.000
3 - A283		ONE HOUR	✓	750	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	115
	2 - A259 West	737	18	337
	3 - A283	89	658	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.65	1373.32	326.2	F	976	1465
2 - A259 West	1.09	174.66	63.5	F	1002	1503
3 - A283	0.93	45.86	9.8	E	688	1032

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	801	200	507	854	0.938	766	614	0.0	8.7	33.257	D
2 - A259 West	822	206	85	1096	0.750	811	1188	0.0	2.8	12.174	B
3 - A283	565	141	561	1054	0.536	560	335	0.0	1.1	7.224	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	957	239	606	792	1.208	786	731	8.7	51.3	153.982	F
2 - A259 West	982	245	88	1095	0.897	965	1305	2.8	6.9	25.123	D
3 - A283	674	169	668	963	0.700	670	386	1.1	2.2	12.101	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1171	293	725	718	1.633	717	826	51.3	164.8	554.058	F
2 - A259 West	1202	301	81	1099	1.094	1082	1362	6.9	36.9	85.451	F
3 - A283	826	206	748	894	0.924	803	415	2.2	8.0	33.216	D

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1171	293	739	709	1.653	709	837	164.8	280.5	1074.993	F
2 - A259 West	1202	301	80	1099	1.094	1096	1368	36.9	63.5	174.664	F
3 - A283	826	206	758	886	0.932	818	418	8.0	9.8	45.855	E

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	957	239	635	774	1.236	774	811	280.5	326.2	1373.322	F
2 - A259 West	982	245	86	1095	0.896	1078	1323	63.5	39.3	173.870	F
3 - A283	674	169	746	896	0.752	701	419	9.8	3.3	20.440	C

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	801	200	520	846	0.947	843	720	326.2	315.6	1369.733	F
2 - A259 West	822	206	93	1091	0.754	966	1270	39.3	3.4	51.192	F
3 - A283	565	141	668	963	0.587	572	392	3.3	1.5	9.372	A

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	725.79	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-38	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	858	100.000
2 - A259 West		ONE HOUR	✓	1389	100.000
3 - A283		ONE HOUR	✓	528	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	163
	2 - A259 West	819	1	569
	3 - A283	192	335	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	19
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.06	136.75	38.2	F	787	1181
2 - A259 West	1.52	1375.82	396.3	F	1275	1912
3 - A283	0.59	9.01	1.4	A	485	727

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	646	161	252	966	0.669	638	723	0.0	1.9	10.746	B
2 - A259 West	1046	261	123	1041	1.005	981	767	0.0	16.3	42.350	E
3 - A283	398	99	580	995	0.400	395	524	0.0	0.7	5.977	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	771	193	302	935	0.825	762	775	1.9	4.2	19.826	C
2 - A259 West	1249	312	147	1024	1.219	1021	918	16.3	73.2	169.150	F
3 - A283	475	119	604	974	0.487	474	564	0.7	0.9	7.175	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	945	236	369	894	1.056	868	807	4.2	23.4	71.627	F
2 - A259 West	1529	382	167	1010	1.514	1010	1070	73.2	203.1	499.555	F
3 - A283	581	145	597	980	0.593	579	580	0.9	1.4	8.951	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	945	236	371	893	1.057	885	807	23.4	38.2	136.749	F
2 - A259 West	1529	382	170	1008	1.518	1008	1086	203.1	333.5	963.540	F
3 - A283	581	145	596	981	0.593	581	582	1.4	1.4	9.011	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	771	193	304	934	0.826	898	768	38.2	6.5	91.689	F
2 - A259 West	1249	312	173	1006	1.241	1006	1030	333.5	394.2	1294.346	F
3 - A283	475	119	595	981	0.484	477	584	1.4	1.0	7.160	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	646	161	254	964	0.670	663	757	6.5	2.1	12.598	B
2 - A259 West	1046	261	128	1038	1.008	1037	790	394.2	396.3	1375.815	F
3 - A283	398	99	613	966	0.411	398	552	1.0	0.7	6.352	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	667.28	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-36	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1089	100.000
2 - A259 West		ONE HOUR	✓	1094	100.000
3 - A283		ONE HOUR	✓	805	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	140
	2 - A259 West	737	18	339
	3 - A283	124	678	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	2
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.71	1569.64	364.6	F	999	1499
2 - A259 West	1.10	194.68	68.6	F	1004	1506
3 - A283	0.99	77.56	18.8	F	739	1108

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	820	205	522	845	0.970	775	639	0.0	11.1	39.346	E
2 - A259 West	824	206	102	1086	0.758	812	1195	0.0	3.0	12.637	B
3 - A283	606	152	560	1055	0.574	601	353	0.0	1.3	7.837	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	979	245	623	782	1.252	778	761	11.1	61.3	184.228	F
2 - A259 West	983	246	103	1086	0.906	966	1298	3.0	7.4	26.687	D
3 - A283	724	181	667	964	0.750	718	402	1.3	2.8	14.248	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1199	300	732	713	1.681	713	855	61.3	182.8	628.499	F
2 - A259 West	1205	301	95	1091	1.105	1076	1351	7.4	39.5	90.987	F
3 - A283	886	222	743	900	0.985	845	428	2.8	13.2	47.039	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1199	300	749	703	1.705	703	866	182.8	306.7	1259.946	F
2 - A259 West	1205	301	94	1091	1.104	1088	1358	39.5	68.6	188.243	F
3 - A283	886	222	751	892	0.993	864	431	13.2	18.8	77.558	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	979	245	678	747	1.310	747	843	306.7	364.6	1547.172	F
2 - A259 West	983	246	99	1088	0.904	1072	1326	68.6	46.3	194.676	F
3 - A283	724	181	740	902	0.803	781	431	18.8	4.6	37.779	E

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	820	205	538	835	0.982	833	765	364.6	361.4	1569.637	F
2 - A259 West	824	206	109	1082	0.761	994	1262	46.3	3.7	71.270	F
3 - A283	606	152	686	948	0.640	617	417	4.6	1.8	11.232	B

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	722.90	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-38	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	857	100.000
2 - A259 West		ONE HOUR	✓	1388	100.000
3 - A283		ONE HOUR	✓	524	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	162
	2 - A259 West	819	1	568
	3 - A283	188	335	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	19
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.06	135.56	37.8	F	786	1180
2 - A259 West	1.52	1368.81	394.4	F	1274	1910
3 - A283	0.59	8.93	1.4	A	481	721

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	252	966	0.668	637	720	0.0	1.9	10.726	B
2 - A259 West	1045	261	122	1041	1.004	980	767	0.0	16.1	42.071	E
3 - A283	394	99	580	994	0.397	392	522	0.0	0.7	5.955	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	302	935	0.824	761	772	1.9	4.2	19.748	C
2 - A259 West	1248	312	146	1025	1.218	1021	918	16.1	72.7	167.986	F
3 - A283	471	118	604	973	0.484	470	563	0.7	0.9	7.136	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	369	894	1.055	867	803	4.2	23.2	71.187	F
2 - A259 West	1528	382	166	1011	1.512	1010	1071	72.7	202.2	496.898	F
3 - A283	577	144	598	979	0.590	575	579	0.9	1.4	8.874	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	371	893	1.056	885	803	23.2	37.8	135.558	F
2 - A259 West	1528	382	169	1008	1.516	1008	1086	202.2	332.2	959.147	F
3 - A283	577	144	597	980	0.589	577	581	1.4	1.4	8.932	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	304	934	0.825	896	765	37.8	6.3	90.043	F
2 - A259 West	1248	312	171	1007	1.239	1007	1029	332.2	392.5	1288.406	F
3 - A283	471	118	596	980	0.480	473	582	1.4	0.9	7.122	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	254	964	0.669	662	755	6.3	2.1	12.532	B
2 - A259 West	1045	261	127	1038	1.007	1037	790	392.5	394.4	1368.813	F
3 - A283	394	99	614	965	0.409	395	550	0.9	0.7	6.328	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	655.57	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-36	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1084	100.000
2 - A259 West		ONE HOUR	✓	1094	100.000
3 - A283		ONE HOUR	✓	802	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	135
	2 - A259 West	737	18	339
	3 - A283	121	678	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.70	1545.09	359.4	F	995	1492
2 - A259 West	1.10	190.99	67.7	F	1004	1506
3 - A283	0.99	75.80	18.3	F	736	1104

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	816	204	522	845	0.965	773	637	0.0	10.7	38.484	E
2 - A259 West	824	206	99	1088	0.757	812	1196	0.0	2.9	12.549	B
3 - A283	604	151	560	1055	0.572	599	350	0.0	1.3	7.801	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	974	244	623	782	1.247	778	759	10.7	59.9	180.175	F
2 - A259 West	983	246	100	1088	0.904	966	1301	2.9	7.3	26.399	D
3 - A283	721	180	667	964	0.748	715	399	1.3	2.8	14.118	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1194	298	733	713	1.674	713	853	59.9	180.1	618.748	F
2 - A259 West	1205	301	92	1092	1.103	1077	1354	7.3	39.0	90.014	F
3 - A283	883	221	744	899	0.983	843	426	2.8	12.9	46.303	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1194	298	750	703	1.699	703	864	180.1	302.9	1244.313	F
2 - A259 West	1205	301	91	1093	1.102	1090	1361	39.0	67.7	185.879	F
3 - A283	883	221	752	891	0.991	862	428	12.9	18.3	75.801	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	974	244	677	748	1.302	748	840	302.9	359.4	1526.705	F
2 - A259 West	983	246	96	1090	0.903	1074	1329	67.7	45.1	190.988	F
3 - A283	721	180	741	901	0.800	776	429	18.3	4.5	36.444	E

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	816	204	538	835	0.977	833	759	359.4	355.3	1545.093	F
2 - A259 West	824	206	106	1084	0.760	990	1265	45.1	3.6	67.430	F
3 - A283	604	151	683	950	0.635	615	413	4.5	1.8	11.051	B

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	668.83	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-37	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	844	100.000
2 - A259 West		ONE HOUR	✓	1372	100.000
3 - A283		ONE HOUR	✓	514	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	149
	2 - A259 West	819	1	552
	3 - A283	180	333	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	21
	2 - A259 West	5	0	1
	3 - A283	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.04	119.00	32.2	F	774	1162
2 - A259 West	1.49	1267.39	367.6	F	1259	1888
3 - A283	0.58	8.90	1.4	A	472	707

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	635	159	251	966	0.658	628	718	0.0	1.9	10.442	B
2 - A259 West	1033	258	112	1047	0.987	977	766	0.0	14.0	38.151	E
3 - A283	387	97	585	989	0.391	384	505	0.0	0.6	5.926	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	759	190	300	935	0.811	751	775	1.9	3.9	18.691	C
2 - A259 West	1233	308	134	1031	1.196	1027	917	14.0	65.7	151.523	F
3 - A283	462	116	614	964	0.479	461	546	0.6	0.9	7.142	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	929	232	367	895	1.039	863	805	3.9	20.5	65.001	F
2 - A259 West	1511	378	154	1017	1.486	1017	1076	65.7	189.2	458.663	F
3 - A283	566	141	609	969	0.584	564	562	0.9	1.4	8.851	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	929	232	368	894	1.040	882	805	20.5	32.2	119.005	F
2 - A259 West	1511	378	158	1014	1.489	1014	1093	189.2	313.3	895.669	F
3 - A283	566	141	607	970	0.583	566	565	1.4	1.4	8.905	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	759	190	302	934	0.812	866	770	32.2	5.3	68.565	F
2 - A259 West	1233	308	155	1016	1.213	1016	1014	313.3	367.6	1202.372	F
3 - A283	462	116	609	969	0.477	464	563	1.4	0.9	7.153	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	635	159	253	964	0.659	648	758	5.3	2.0	11.834	B
2 - A259 West	1033	258	116	1044	0.989	1041	785	367.6	365.5	1267.385	F
3 - A283	387	97	623	957	0.405	388	534	0.9	0.7	6.340	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	628.36	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1082	100.000
2 - A259 West		ONE HOUR	✓	1092	100.000
3 - A283		ONE HOUR	✓	776	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	133
	2 - A259 West	737	18	337
	3 - A283	110	663	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.68	1475.21	347.8	F	993	1489
2 - A259 West	1.10	186.84	66.5	F	1002	1503
3 - A283	0.96	58.04	13.1	F	712	1068

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	815	204	511	852	0.956	775	629	0.0	10.0	36.474	E
2 - A259 West	822	206	97	1089	0.755	810	1188	0.0	2.9	12.465	B
3 - A283	584	146	560	1055	0.554	579	348	0.0	1.2	7.499	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	973	243	610	790	1.232	785	749	10.0	56.8	169.909	F
2 - A259 West	982	245	99	1088	0.903	965	1296	2.9	7.2	26.114	D
3 - A283	698	174	667	964	0.724	693	397	1.2	2.5	13.028	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1191	298	725	718	1.660	718	844	56.8	175.3	594.414	F
2 - A259 West	1202	301	91	1093	1.101	1077	1351	7.2	38.4	88.866	F
3 - A283	854	214	745	897	0.952	824	424	2.5	10.0	38.896	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1191	298	741	708	1.683	708	855	175.3	296.1	1140.179	F
2 - A259 West	1202	301	90	1093	1.100	1090	1358	38.4	66.5	182.976	F
3 - A283	854	214	754	890	0.960	842	427	10.0	13.1	58.044	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	973	243	648	766	1.270	766	828	296.1	347.8	1462.652	F
2 - A259 West	982	245	97	1089	0.901	1073	1317	66.5	43.7	186.843	F
3 - A283	698	174	742	900	0.775	735	428	13.1	3.8	25.577	D

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	815	204	525	843	0.966	841	747	347.8	341.3	1475.209	F
2 - A259 West	822	206	106	1084	0.759	983	1260	43.7	3.6	63.422	F
3 - A283	584	146	679	953	0.613	593	409	3.8	1.6	10.215	B

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	724.54	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-38	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	858	100.000
2 - A259 West		ONE HOUR	✓	1387	100.000
3 - A283		ONE HOUR	✓	514	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	163
	2 - A259 West	819	1	567
	3 - A283	179	334	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	19
	2 - A259 West	5	0	1
	3 - A283	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.06	135.94	38.0	F	787	1181
2 - A259 West	1.52	1367.84	393.9	F	1273	1909
3 - A283	0.58	8.71	1.4	A	472	707

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	646	161	251	966	0.668	638	713	0.0	1.9	10.734	B
2 - A259 West	1044	261	123	1041	1.003	980	767	0.0	16.1	42.014	E
3 - A283	387	97	580	993	0.390	384	523	0.0	0.6	5.891	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	771	193	301	936	0.824	762	764	1.9	4.2	19.776	C
2 - A259 West	1247	312	147	1024	1.217	1021	917	16.1	72.6	167.781	F
3 - A283	462	116	604	972	0.475	461	563	0.6	0.9	7.024	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	945	236	368	895	1.056	868	794	4.2	23.3	71.330	F
2 - A259 West	1527	382	167	1010	1.512	1010	1070	72.6	202.0	496.507	F
3 - A283	566	141	598	978	0.579	564	579	0.9	1.3	8.661	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	945	236	370	894	1.057	886	793	23.3	38.0	135.942	F
2 - A259 West	1527	382	170	1008	1.516	1008	1085	202.0	331.8	958.618	F
3 - A283	566	141	597	979	0.578	566	581	1.3	1.4	8.711	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	771	193	303	935	0.825	898	757	38.0	6.4	90.615	F
2 - A259 West	1247	312	172	1006	1.239	1006	1028	331.8	392.0	1287.763	F
3 - A283	462	116	596	980	0.472	464	583	1.4	0.9	7.002	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	646	161	254	965	0.669	663	748	6.4	2.1	12.554	B
2 - A259 West	1044	261	128	1038	1.006	1037	789	392.0	393.9	1367.843	F
3 - A283	387	97	614	964	0.401	388	551	0.9	0.7	6.255	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Mini-roundabout	1, 2, 3	616.14	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-35	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1074	100.000
2 - A259 West		ONE HOUR	✓	1093	100.000
3 - A283		ONE HOUR	✓	776	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	125
	2 - A259 West	737	18	338
	3 - A283	106	667	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	7	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.68	1452.39	342.1	F	986	1478
2 - A259 West	1.10	182.55	65.6	F	1003	1504
3 - A283	0.96	58.65	13.2	F	712	1068

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	809	202	514	850	0.951	770	626	0.0	9.6	35.645	E
2 - A259 West	823	206	92	1092	0.753	811	1192	0.0	2.9	12.360	B
3 - A283	584	146	560	1055	0.554	579	343	0.0	1.2	7.500	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	966	241	614	787	1.226	783	746	9.6	55.3	166.110	F
2 - A259 West	983	246	94	1091	0.901	966	1303	2.9	7.1	25.763	D
3 - A283	698	174	667	964	0.724	692	392	1.2	2.5	13.037	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1183	296	729	715	1.653	715	841	55.3	172.2	585.088	F
2 - A259 West	1203	301	86	1096	1.098	1080	1358	7.1	38.0	87.737	F
3 - A283	854	214	746	896	0.953	824	420	2.5	10.1	39.137	E

17:30 - 17:45

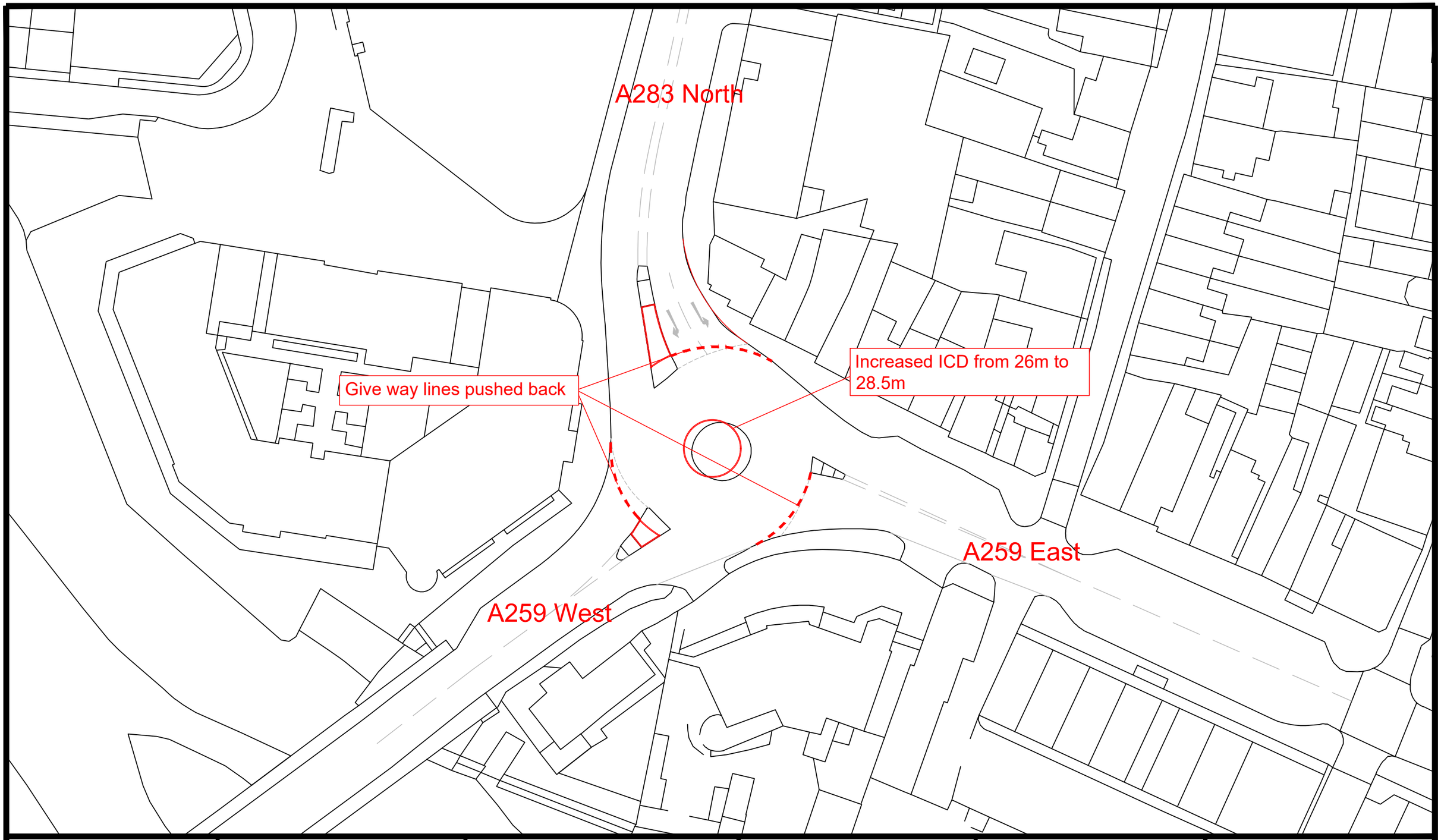
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1183	296	745	705	1.677	705	852	172.2	291.5	1126.703	F
2 - A259 West	1203	301	85	1096	1.098	1093	1365	38.0	65.6	180.283	F
3 - A283	854	214	755	889	0.961	842	423	10.1	13.2	58.651	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	966	241	653	763	1.265	763	826	291.5	342.1	1445.034	F
2 - A259 West	983	246	92	1092	0.900	1076	1324	65.6	42.3	182.545	F
3 - A283	698	174	743	899	0.776	735	424	13.2	3.8	25.902	D

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	809	202	528	841	0.961	839	740	342.1	334.6	1452.394	F
2 - A259 West	823	206	100	1087	0.757	978	1267	42.3	3.5	59.135	F
3 - A283	584	146	676	956	0.611	593	402	3.8	1.6	10.128	B



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NOTES
1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A283 / A259

Date	Drawn		
15/11/2021	MAW		
Checked	Date	Approved	Date
Scale	Drg No.		Rev.
NTS @ A3	APPENDIX 21.2		

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 10 (A259) Proposed.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 10 (A259)
Report generation date: 21/01/2022 10:22:10

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A259 East	3.2	12.54	0.77	B	19.69	C	1 % [2 - A259 West]	88.4	241.77	1.15	F	93.56	F	-15 % [1 - A259 East]
2 - A259 West	11.7	29.51	0.94	D				2.3	7.00	0.70	A			
3 - A283	1.0	5.95	0.49	A				2.2	8.90	0.69	A			
Scenario 2 Total														
1 - A259 East	3.2	12.49	0.77	B	19.52	C	1 % [2 - A259 West]	85.7	235.18	1.15	F	90.95	F	-15 % [1 - A259 East]
2 - A259 West	11.6	29.16	0.93	D				2.3	6.96	0.70	A			
3 - A283	0.9	5.91	0.49	A				2.1	8.83	0.68	A			
Scenario 3 Total														
1 - A259 East	3.0	11.90	0.76	B	17.15	C	3 % [2 - A259 West]	80.0	219.13	1.14	F	85.52	F	-14 % [1 - A259 East]
2 - A259 West	9.8	24.75	0.92	C				2.3	6.92	0.70	A			
3 - A283	0.9	5.82	0.48	A				1.9	8.28	0.66	A			
Scenario 4 Total														
1 - A259 East	3.2	12.51	0.77	B	19.52	C	1 % [2 - A259 West]	76.8	211.74	1.13	F	82.43	F	-14 % [1 - A259 East]
2 - A259 West	11.6	29.11	0.93	D				2.3	6.87	0.70	A			
3 - A283	0.9	5.82	0.48	A				1.9	8.26	0.66	A			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

APPENDIX 21.3
ARCADY OUTPUTS: PROPOSED DEVELOPMENT SCENARIOS
(WITH PROPOSED JUNCTION IMPROVEMENTS)

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	07/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15			
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	19.69	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	2 - A259 West

Arms

Arms

Arm	Name	Description
1	A259 East	
2	A259 West	
3	A283	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A259 East	3.60	8.00	5.5	39.0	28.5	18.0	
2 - A259 West	3.80	6.60	26.0	19.6	28.5	20.5	
3 - A283	4.80	8.30	6.3	20.7	28.5	19.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A259 East	0.651	1561
2 - A259 West	0.698	1839
3 - A283	0.713	1906

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	858	100.000
2 - A259 West		ONE HOUR	✓	1389	100.000
3 - A283		ONE HOUR	✓	528	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	163
	2 - A259 West	819	1	569
	3 - A283	192	335	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	19
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.77	12.54	3.2	B	787	1181
2 - A259 West	0.94	29.51	11.7	D	1275	1912
3 - A283	0.49	5.95	1.0	A	485	727

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	646	161	253	1304	0.495	642	757	0.0	1.0	5.407	A
2 - A259 West	1046	261	123	1681	0.622	1039	771	0.0	1.6	5.557	A
3 - A283	398	99	614	1392	0.285	396	548	0.0	0.4	3.606	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	771	193	303	1273	0.606	769	906	1.0	1.5	7.111	A
2 - A259 West	1249	312	148	1661	0.752	1243	924	1.6	2.9	8.511	A
3 - A283	475	119	735	1305	0.364	474	656	0.4	0.6	4.326	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	945	236	370	1231	0.767	938	1096	1.5	3.1	12.029	B
2 - A259 West	1529	382	180	1635	0.935	1500	1128	2.9	10.3	22.856	C
3 - A283	581	145	887	1196	0.486	580	794	0.6	0.9	5.829	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	945	236	371	1231	0.768	944	1111	3.1	3.2	12.535	B
2 - A259 West	1529	382	182	1634	0.936	1523	1134	10.3	11.7	29.506	D
3 - A283	581	145	900	1186	0.490	581	805	0.9	1.0	5.952	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	771	193	304	1272	0.606	778	931	3.2	1.6	7.377	A
2 - A259 West	1249	312	150	1660	0.752	1283	932	11.7	3.2	10.361	B
3 - A283	475	119	758	1288	0.368	476	674	1.0	0.6	4.440	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	646	161	254	1303	0.496	648	766	1.6	1.0	5.517	A
2 - A259 West	1046	261	125	1680	0.623	1052	778	3.2	1.7	5.784	A
3 - A283	398	99	622	1387	0.287	398	555	0.6	0.4	3.645	A

Scenario 1 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	93.56	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1089	100.000
2 - A259 West		ONE HOUR	✓	1094	100.000
3 - A283		ONE HOUR	✓	805	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	140
	2 - A259 West	737	18	339
	3 - A283	124	678	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	2
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.15	241.77	88.4	F	999	1499
2 - A259 West	0.70	7.00	2.3	A	1004	1506
3 - A283	0.69	8.90	2.2	A	739	1108

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	820	205	524	1195	0.686	811	645	0.0	2.1	9.183	A
2 - A259 West	824	206	107	1740	0.473	820	1229	0.0	0.9	3.900	A
3 - A283	606	152	566	1481	0.409	603	361	0.0	0.7	4.088	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	979	245	627	1130	0.867	965	773	2.1	5.6	20.364	C
2 - A259 West	983	246	127	1725	0.570	982	1466	0.9	1.3	4.830	A
3 - A283	724	181	678	1401	0.517	722	431	0.7	1.1	5.292	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1199	300	766	1041	1.152	1029	945	5.6	48.0	105.766	F
2 - A259 West	1205	301	136	1719	0.701	1201	1660	1.3	2.3	6.889	A
3 - A283	886	222	829	1292	0.686	882	508	1.1	2.1	8.691	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1199	300	769	1039	1.154	1037	948	48.0	88.4	241.775	F
2 - A259 West	1205	301	137	1719	0.701	1204	1670	2.3	2.3	6.997	A
3 - A283	886	222	831	1290	0.687	886	510	2.1	2.2	8.902	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	979	245	632	1126	0.869	1114	777	88.4	54.7	231.902	F
2 - A259 West	983	246	146	1712	0.574	987	1600	2.3	1.4	4.994	A
3 - A283	724	181	681	1398	0.518	728	452	2.2	1.1	5.406	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	820	205	528	1193	0.687	1029	650	54.7	2.4	52.943	F
2 - A259 West	824	206	135	1720	0.479	825	1422	1.4	0.9	4.033	A
3 - A283	606	152	570	1479	0.410	608	390	1.1	0.7	4.139	A

Scenario 2 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	19.52	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	857	100.000
2 - A259 West		ONE HOUR	✓	1388	100.000
3 - A283		ONE HOUR	✓	524	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	162
	2 - A259 West	819	1	568
	3 - A283	188	335	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	19
	2 - A259 West	5	0	1
	3 - A283	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.77	12.49	3.2	B	786	1180
2 - A259 West	0.93	29.16	11.6	D	1274	1910
3 - A283	0.49	5.91	0.9	A	481	721

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	253	1304	0.495	641	754	0.0	1.0	5.402	A
2 - A259 West	1045	261	123	1681	0.622	1038	771	0.0	1.6	5.546	A
3 - A283	394	99	614	1392	0.283	393	547	0.0	0.4	3.592	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	303	1273	0.605	768	903	1.0	1.5	7.103	A
2 - A259 West	1248	312	147	1662	0.751	1243	924	1.6	2.9	8.483	A
3 - A283	471	118	735	1305	0.361	470	655	0.4	0.6	4.310	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	370	1231	0.767	937	1092	1.5	3.1	11.992	B
2 - A259 West	1528	382	179	1636	0.934	1499	1128	2.9	10.1	22.675	C
3 - A283	577	144	887	1195	0.483	575	792	0.6	0.9	5.794	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	944	236	371	1230	0.767	943	1106	3.1	3.2	12.493	B
2 - A259 West	1528	382	181	1635	0.935	1522	1134	10.1	11.6	29.162	D
3 - A283	577	144	900	1186	0.487	577	802	0.9	0.9	5.913	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	770	193	304	1272	0.606	777	927	3.2	1.6	7.361	A
2 - A259 West	1248	312	149	1660	0.751	1282	932	11.6	3.1	10.291	B
3 - A283	471	118	758	1288	0.366	472	672	0.9	0.6	4.421	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	645	161	254	1303	0.495	647	763	1.6	1.0	5.510	A
2 - A259 West	1045	261	124	1680	0.622	1051	778	3.1	1.7	5.770	A
3 - A283	394	99	622	1387	0.284	395	553	0.6	0.4	3.632	A

Scenario 2 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	90.95	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1084	100.000
2 - A259 West		ONE HOUR	✓	1094	100.000
3 - A283		ONE HOUR	✓	802	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	135
	2 - A259 West	737	18	339
	3 - A283	121	678	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.15	235.18	85.7	F	995	1492
2 - A259 West	0.70	6.96	2.3	A	1004	1506
3 - A283	0.68	8.83	2.1	A	736	1104

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	816	204	524	1195	0.683	808	643	0.0	2.1	9.104	A
2 - A259 West	824	206	103	1742	0.473	820	1229	0.0	0.9	3.889	A
3 - A283	604	151	566	1481	0.408	601	357	0.0	0.7	4.078	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	974	244	627	1129	0.863	961	770	2.1	5.4	19.957	C
2 - A259 West	983	246	122	1729	0.569	982	1466	0.9	1.3	4.810	A
3 - A283	721	180	678	1401	0.515	720	427	0.7	1.0	5.271	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1194	298	766	1041	1.147	1029	941	5.4	46.6	103.301	F
2 - A259 West	1205	301	131	1722	0.699	1201	1663	1.3	2.3	6.853	A
3 - A283	883	221	829	1292	0.683	879	503	1.0	2.1	8.627	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1194	298	769	1039	1.149	1037	945	46.6	85.7	235.177	F
2 - A259 West	1205	301	132	1721	0.700	1204	1674	2.3	2.3	6.958	A
3 - A283	883	221	831	1290	0.684	883	506	2.1	2.1	8.832	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	974	244	632	1126	0.865	1113	774	85.7	51.0	222.050	F
2 - A259 West	983	246	141	1715	0.573	987	1604	2.3	1.4	4.970	A
3 - A283	721	180	681	1398	0.516	725	447	2.1	1.1	5.382	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	816	204	528	1193	0.684	1011	647	51.0	2.3	45.007	E
2 - A259 West	824	206	128	1724	0.478	825	1410	1.4	0.9	4.013	A
3 - A283	604	151	570	1479	0.408	605	384	1.1	0.7	4.130	A

Scenario 3 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	17.15	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	844	100.000
2 - A259 West		ONE HOUR	✓	1372	100.000
3 - A283		ONE HOUR	✓	514	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	149
	2 - A259 West	819	1	552
	3 - A283	180	333	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	21
	2 - A259 West	5	0	1
	3 - A283	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.76	11.90	3.0	B	774	1162
2 - A259 West	0.92	24.75	9.8	C	1259	1888
3 - A283	0.48	5.82	0.9	A	472	707

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	635	159	251	1304	0.487	632	749	0.0	0.9	5.328	A
2 - A259 West	1033	258	113	1687	0.612	1027	770	0.0	1.6	5.400	A
3 - A283	387	97	614	1391	0.278	385	525	0.0	0.4	3.576	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	759	190	301	1273	0.596	757	896	0.9	1.4	6.946	A
2 - A259 West	1233	308	135	1669	0.739	1229	922	1.6	2.7	8.088	A
3 - A283	462	116	735	1304	0.354	461	629	0.4	0.5	4.273	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	929	232	368	1231	0.755	923	1086	1.4	2.9	11.478	B
2 - A259 West	1511	378	165	1645	0.918	1486	1126	2.7	8.8	20.213	C
3 - A283	566	141	889	1193	0.474	565	762	0.5	0.9	5.718	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	929	232	369	1231	0.755	929	1099	2.9	3.0	11.904	B
2 - A259 West	1511	378	166	1644	0.919	1507	1132	8.8	9.8	24.751	C
3 - A283	566	141	902	1184	0.478	566	771	0.9	0.9	5.824	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	759	190	302	1272	0.596	765	916	3.0	1.5	7.179	A
2 - A259 West	1233	308	137	1668	0.740	1261	930	9.8	2.9	9.395	A
3 - A283	462	116	754	1290	0.358	463	643	0.9	0.6	4.362	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	635	159	253	1303	0.488	638	756	1.5	1.0	5.429	A
2 - A259 West	1033	258	114	1686	0.613	1038	776	2.9	1.6	5.601	A
3 - A283	387	97	621	1386	0.279	388	531	0.6	0.4	3.607	A

Scenario 3 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	85.52	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1082	100.000
2 - A259 West		ONE HOUR	✓	1092	100.000
3 - A283		ONE HOUR	✓	777	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	133
	2 - A259 West	737	18	337
	3 - A283	110	664	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.14	219.13	80.0	F	993	1489
2 - A259 West	0.70	6.92	2.3	A	1002	1503
3 - A283	0.66	8.28	1.9	A	713	1069

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	815	204	513	1202	0.678	806	635	0.0	2.0	8.927	A
2 - A259 West	822	206	101	1743	0.472	819	1218	0.0	0.9	3.878	A
3 - A283	585	146	566	1481	0.395	582	354	0.0	0.6	3.995	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	973	243	615	1137	0.855	960	760	2.0	5.2	19.085	C
2 - A259 West	982	245	121	1730	0.568	980	1454	0.9	1.3	4.792	A
3 - A283	699	175	678	1400	0.499	697	423	0.6	1.0	5.110	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1191	298	751	1050	1.134	1037	929	5.2	43.8	97.339	F
2 - A259 West	1202	301	131	1723	0.698	1198	1657	1.3	2.3	6.818	A
3 - A283	855	214	829	1292	0.662	852	501	1.0	1.9	8.117	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1191	298	754	1048	1.136	1047	932	43.8	80.0	219.130	F
2 - A259 West	1202	301	132	1722	0.698	1202	1669	2.3	2.3	6.925	A
3 - A283	855	214	831	1290	0.663	855	503	1.9	1.9	8.281	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	973	243	619	1135	0.857	1121	764	80.0	43.0	199.283	F
2 - A259 West	982	245	140	1716	0.572	985	1599	2.3	1.4	4.956	A
3 - A283	699	175	681	1398	0.500	702	445	1.9	1.0	5.204	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	815	204	517	1200	0.679	978	639	43.0	2.2	31.100	D
2 - A259 West	822	206	122	1728	0.476	824	1372	1.4	0.9	3.989	A
3 - A283	585	146	570	1478	0.396	586	377	1.0	0.7	4.043	A

Scenario 4 Total, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	19.52	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	2 - A259 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	858	100.000
2 - A259 West		ONE HOUR	✓	1387	100.000
3 - A283		ONE HOUR	✓	514	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	1	694	163
	2 - A259 West	819	1	567
	3 - A283	179	334	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	4	19
	2 - A259 West	5	0	1
	3 - A283	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	0.77	12.51	3.2	B	787	1181
2 - A259 West	0.93	29.11	11.6	D	1273	1909
3 - A283	0.48	5.82	0.9	A	472	707

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	646	161	252	1305	0.495	642	748	0.0	1.0	5.403	A
2 - A259 West	1044	261	123	1681	0.621	1038	771	0.0	1.6	5.544	A
3 - A283	387	97	614	1391	0.278	385	547	0.0	0.4	3.576	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	771	193	302	1274	0.606	769	895	1.0	1.5	7.102	A
2 - A259 West	1247	312	148	1661	0.751	1242	923	1.6	2.9	8.478	A
3 - A283	462	116	735	1304	0.354	461	655	0.4	0.5	4.270	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	945	236	369	1232	0.767	938	1082	1.5	3.1	12.005	B
2 - A259 West	1527	382	180	1635	0.934	1498	1127	2.9	10.1	22.644	C
3 - A283	566	141	887	1195	0.474	565	792	0.5	0.9	5.701	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	945	236	370	1231	0.767	944	1096	3.1	3.2	12.508	B
2 - A259 West	1527	382	182	1634	0.935	1521	1133	10.1	11.6	29.105	D
3 - A283	566	141	901	1185	0.478	566	802	0.9	0.9	5.816	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	771	193	303	1273	0.606	778	918	3.2	1.6	7.365	A
2 - A259 West	1247	312	150	1660	0.751	1281	931	11.6	3.1	10.278	B
3 - A283	462	116	758	1287	0.359	463	672	0.9	0.6	4.375	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	646	161	253	1304	0.496	648	756	1.6	1.0	5.513	A
2 - A259 West	1044	261	125	1680	0.622	1050	777	3.1	1.7	5.770	A
3 - A283	387	97	622	1386	0.279	388	553	0.6	0.4	3.608	A

Scenario 4 Total, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	9 - A283/A259	Standard Roundabout	1, 2, 3	82.43	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	1 - A259 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A259 East		ONE HOUR	✓	1074	100.000
2 - A259 West		ONE HOUR	✓	1093	100.000
3 - A283		ONE HOUR	✓	776	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	949	125
	2 - A259 West	737	18	338
	3 - A283	106	667	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A259 East	2 - A259 West	3 - A283
From	1 - A259 East	0	2	3
	2 - A259 West	2	0	0
	3 - A283	7	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A259 East	1.13	211.74	76.8	F	986	1478
2 - A259 West	0.70	6.87	2.3	A	1003	1504
3 - A283	0.66	8.26	1.9	A	712	1068

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	809	202	516	1200	0.674	801	632	0.0	2.0	8.838	A
2 - A259 West	823	206	95	1747	0.471	819	1221	0.0	0.9	3.864	A
3 - A283	584	146	566	1481	0.395	582	349	0.0	0.6	3.992	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	966	241	617	1136	0.850	954	757	2.0	5.0	18.650	C
2 - A259 West	983	246	114	1734	0.567	981	1457	0.9	1.3	4.766	A
3 - A283	698	174	678	1400	0.498	696	417	0.6	1.0	5.103	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1183	296	754	1048	1.128	1034	925	5.0	42.2	94.635	F
2 - A259 West	1203	301	124	1727	0.697	1200	1664	1.3	2.2	6.771	A
3 - A283	854	214	829	1292	0.662	851	495	1.0	1.9	8.097	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	1183	296	757	1046	1.130	1044	928	42.2	76.8	211.742	F
2 - A259 West	1203	301	125	1727	0.697	1203	1677	2.2	2.3	6.874	A
3 - A283	854	214	831	1290	0.662	854	497	1.9	1.9	8.261	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	966	241	622	1133	0.852	1118	761	76.8	38.7	187.960	F
2 - A259 West	983	246	133	1721	0.571	986	1607	2.3	1.3	4.926	A
3 - A283	698	174	681	1398	0.499	701	438	1.9	1.0	5.195	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A259 East	809	202	519	1198	0.675	955	636	38.7	2.2	25.636	D
2 - A259 West	823	206	113	1735	0.474	825	1360	1.3	0.9	3.963	A
3 - A283	584	146	570	1478	0.395	586	368	1.0	0.7	4.038	A

APPENDIX 22.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 11 – A27 / NEW MONKS FARM COMMITTED SIGNAL ROUNDABOUT

22.1 LinSig Output: 2033 Baseline Scenario + Proposed Development Scenarios

Full Input Data And Results

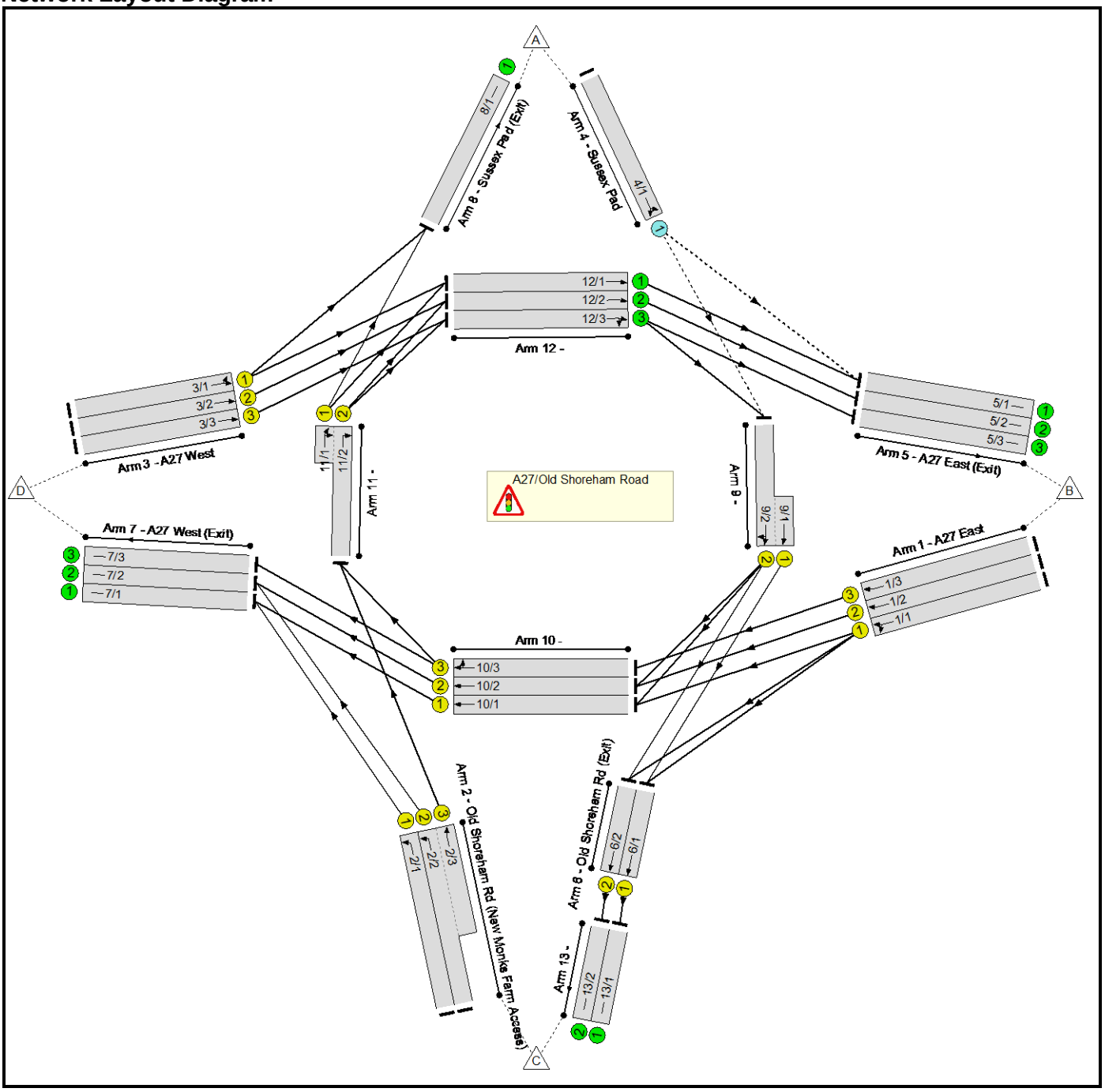
User and Project Details

Project:	**5201 Shoreham Cement Works**
Title:	
Location:	
Client:	SDNPA
Site Ref(s):	A27/Old Shoreham Rd
Additional detail:	
File name:	A27_Old Shoreham Rd Roundabout.lsg3x
Author:	Alex Painting
Company:	ADL Traffic and Highways Engineering Ltd
Address:	

APPENDIX 22.1
LINSIG OUTPUT: 2033 BASELINE SCENARIO + PROPOSED DEVELOPMENT SCENARIO

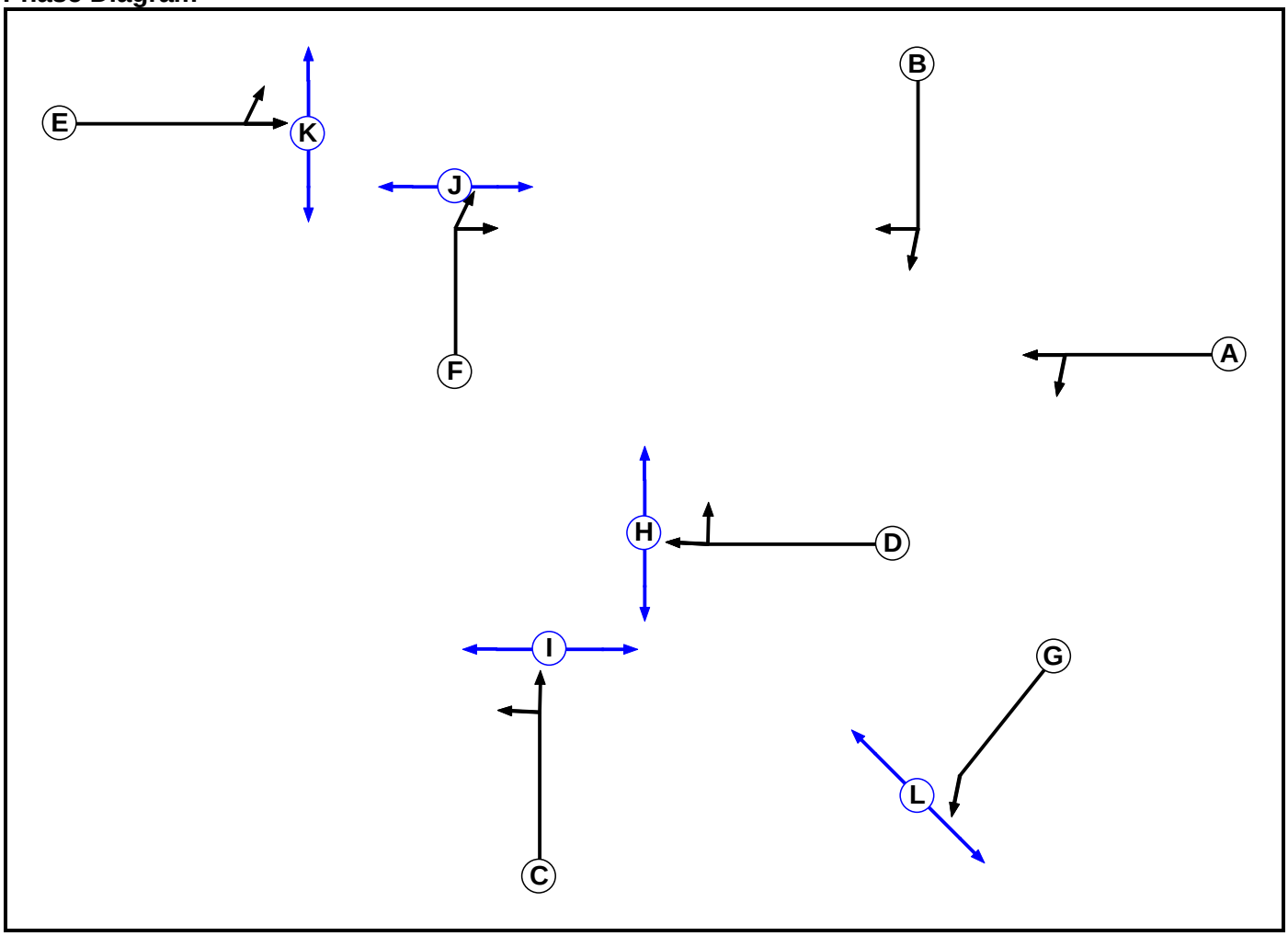
Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Pedestrian	2		8	8
I	Pedestrian	2		8	8
J	Pedestrian	3		8	8
K	Pedestrian	3		8	8
L	Pedestrian	4		7	7

Full Input Data And Results

Phase Intergreens Matrix

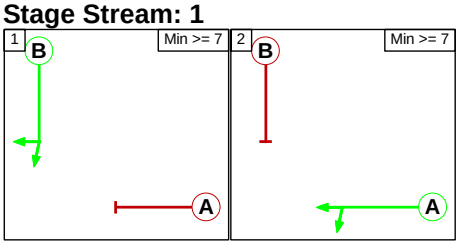
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L
A		6	-	-	-	-	-	-	-	-	-	-
B	6		-	-	-	-	-	-	-	-	-	-
C	-	-		6	-	-	-	-	4	-	-	-
D	-	-	6		-	-	-	8	-	-	-	-
E	-	-	-	-		6	-	-	-	-	4	-
F	-	-	-	-	6		-	-	-	8	-	-
G	-	-	-	-	-	-		-	-	-	-	4
H	-	-	-	8	-	-	-		-	-	-	-
I	-	-	8	-	-	-	-	-		-	-	-
J	-	-	-	-	-	8	-	-	-		-	-
K	-	-	-	-	8	-	-	-	-	-		-
L	-	-	-	-	-	-	7	-	-	-	-	

Phases in Stage

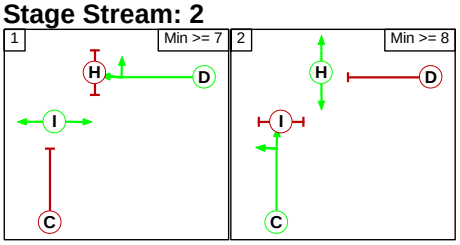
Stream	Stage No.	Phases in Stage
1	1	B
1	2	A
2	1	D I
2	2	C H
3	1	F K
3	2	E J
4	1	G
4	2	L

Stage Diagram

Stage Stream: 1

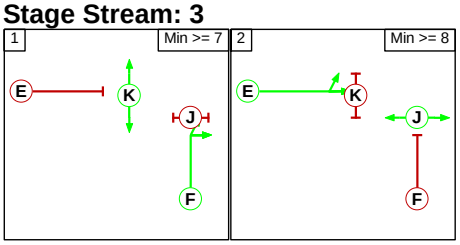


Stage Stream: 2

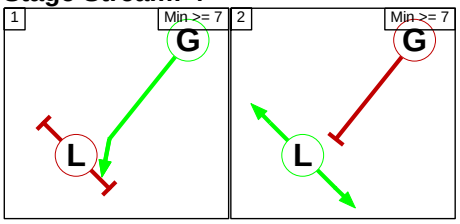


Full Input Data And Results

Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		8
	2	8	

Full Input Data And Results

Stage Stream: 3

	To Stage		
		1	2
From Stage	1		8
	2	8	

Stage Stream: 4

	To Stage		
		1	2
From Stage	1		4
	2	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A27/Old Shoreham Road											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
4/1 (Sussex Pad)	5/1 (Left)	1000	0	12/1	0.33	All	-	-	-	-	-
				12/2	0.33	All					
				12/3	0.33	All					
	9/2 (Ahead)	1000	0	12/1	0.33	All					
				12/2	0.33	All					
				12/3	0.33	All					

Full Input Data And Results

Lane Input Data

Junction: A27/Old Shoreham Road												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (A27 East)	U	A	2	3	60.0	User	1900	-	-	-	-	-
1/2 (A27 East)	U	A	2	3	60.0	User	1900	-	-	-	-	-
1/3 (A27 East)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (Old Shoreham Rd (New Monks Farm Access))	U	C	2	3	60.0	User	1900	-	-	-	-	-
2/2 (Old Shoreham Rd (New Monks Farm Access))	U	C	2	3	60.0	User	1900	-	-	-	-	-
2/3 (Old Shoreham Rd (New Monks Farm Access))	U	C	2	3	9.0	User	1900	-	-	-	-	-
3/1 (A27 West)	U	E	2	3	60.0	User	1900	-	-	-	-	-
3/2 (A27 West)	U	E	2	3	60.0	User	1900	-	-	-	-	-
3/3 (A27 West)	U	E	2	3	60.0	User	1900	-	-	-	-	-
4/1 (Sussex Pad)	O		2	3	60.0	User	1900	-	-	-	-	-
5/1 (A27 East (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (A27 East (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/3 (A27 East (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Old Shoreham Rd (Exit))	U	G	2	3	5.0	User	1900	-	-	-	-	-
6/2 (Old Shoreham Rd (Exit))	U	G	2	3	5.0	User	1900	-	-	-	-	-
7/1 (A27 West (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (A27 West (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/3 (A27 West (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Sussex Pad (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1	U	B	2	3	4.0	User	1900	-	-	-	-	-
9/2	U	B	2	3	5.0	User	1900	-	-	-	-	-

Full Input Data And Results

10/1	U	D	2	3	9.0	User	1900	-	-	-	-	-
10/2	U	D	2	3	9.0	User	1900	-	-	-	-	-
10/3	U	D	2	3	9.0	User	1900	-	-	-	-	-
11/1	U	F	2	3	3.0	User	1900	-	-	-	-	-
11/2	U	F	2	3	8.0	User	1900	-	-	-	-	-
12/1	U		2	3	8.0	Inf	-	-	-	-	-	-
12/2	U		2	3	8.0	Inf	-	-	-	-	-	-
12/3	U		2	3	8.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2033 Base + Committed (including permitted)'	08:00	09:00	01:00	
2: '2033 Base + Committed (including permitted)'	17:00	18:00	01:00	
3: 'AM Permitted'	08:00	09:00	01:00	
4: 'PM Permitted'	17:00	18:00	01:00	
5: 'AM - Scenario 1'	08:00	09:00	01:00	
6: 'AM - Scenario 2'	08:00	09:00	01:00	
7: 'AM - Scenario 3'	08:00	09:00	01:00	
8: 'AM - Scenario 4'	08:00	09:00	01:00	
9: 'PM - Scenario 1'	17:00	18:00	01:00	
10: 'PM - Scenario 2'	17:00	18:00	01:00	
11: 'PM - Scenario 3'	17:00	18:00	01:00	
12: 'PM - Scenario 4'	17:00	18:00	01:00	
13: '2033 AM Total - Scenario 1'	08:00	09:00	01:00	F1 - F3 + F5
14: '2033 AM Total - Scenario 2'	08:00	09:00	01:00	F1 - F3 + F6
15: '2033 AM Total - Scenario 3'	08:00	09:00	01:00	F1 - F3 + F7
16: '2033 AM Total - Scenario 4'	08:00	09:00	01:00	F1 - F3 + F8
17: '2033 PM Total - Scenario 1'	17:00	18:00	01:00	F2 - F4 + F9
18: '2033 PM Total - Scenario 2'	17:00	18:00	01:00	F2 - F4 + F10
19: '2033 PM Total - Scenario 3'	17:00	18:00	01:00	F2 - F4 + F11
20: '2033 PM Total - Scenario 4'	17:00	18:00	01:00	F2 - F4 + F12

Scenario 1: '2033 Base + Committed (including permitted) - AM' (FG1: '2033 Base + Committed (including permitted)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2347	2848
	C	2	248	0	149	399
	D	61	2805	231	0	3097
	Tot.	121	3104	677	2524	6426

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2033 Base + Committed (including permitted) - AM
Junction: A27/Old Shoreham Road	
1/1	1067
1/2	890
1/3	891
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1032
3/2	1033
3/3	1032
4/1	82
5/1	1061
5/2	1137
5/3	906
6/1	340
6/2	337
7/1	801
7/2	890
7/3	833
8/1	121
9/1 (short)	123
9/2 (with short)	262(In) 139(Out)
10/1	652
10/2	890
10/3	891
11/1 (short)	99
11/2 (with short)	308(In) 209(Out)
12/1	1010
12/2	1137
12/3	1137
13/1	340
13/2	337

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 2: '2033 AM Total - Scenario 1' (FG13: '2033 AM Total - Scenario 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2455	2956
	C	2	248	0	149	399
	D	61	2924	231	0	3216
	Tot.	121	3223	677	2632	6653

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2033 AM Total - Scenario 1
Junction: A27/Old Shoreham Road	
1/1	989
1/2	984
1/3	983
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1072
3/2	1072
3/3	1072
4/1	82
5/1	1174
5/2	1140
5/3	909
6/1	339
6/2	338
7/1	723
7/2	984
7/3	925
8/1	121
9/1 (short)	117
9/2 (with short)	262(In) 145(Out)
10/1	574
10/2	984
10/3	983
11/1 (short)	172
11/2 (with short)	308(In) 136(Out)
12/1	1123
12/2	1140
12/3	1140
13/1	339
13/2	338

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 3: '2033 AM Total - Scenario 2' (FG14: '2033 AM Total - Scenario 2', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2439	2940
	C	2	248	0	149	399
	D	61	2921	231	0	3213
	Tot.	121	3220	677	2616	6634

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2033 AM Total - Scenario 2
Junction: A27/Old Shoreham Road	
1/1	1092
1/2	924
1/3	924
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1071
3/2	1071
3/3	1071
4/1	82
5/1	1108
5/2	1171
5/3	941
6/1	340
6/2	337
7/1	826
7/2	924
7/3	866
8/1	121
9/1 (short)	122
9/2 (with short)	262(In) 140(Out)
10/1	677
10/2	924
10/3	924
11/1 (short)	107
11/2 (with short)	308(In) 201(Out)
12/1	1057
12/2	1171
12/3	1172
13/1	340
13/2	337

Full Input Data And Results

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 4: '2033 AM Total - Scenario 3' (FG15: '2033 AM Total - Scenario 3', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2413	2914
	C	2	248	0	149	399
	D	61	2881	231	0	3173
	Tot.	121	3180	677	2590	6568

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2033 AM Total - Scenario 3
Junction: A27/Old Shoreham Road	
1/1	1090
1/2	912
1/3	912
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1058
3/2	1057
3/3	1058
4/1	82
5/1	1080
5/2	1165
5/3	935
6/1	340
6/2	337
7/1	824
7/2	912
7/3	854
8/1	121
9/1 (short)	123
9/2 (with short)	262(In) 139(Out)
10/1	675
10/2	912
10/3	912
11/1 (short)	92
11/2 (with short)	308(In) 216(Out)
12/1	1029
12/2	1165
12/3	1166
13/1	340
13/2	337

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 5: '2033 AM Total - Scenario 4' (FG16: '2033 AM Total - Scenario 4', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	51	3	28	82
	B	58	0	443	2405	2906
	C	2	248	0	149	399
	D	61	2921	231	0	3213
	Tot.	121	3220	677	2582	6600

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2033 AM Total - Scenario 4
Junction: A27/Old Shoreham Road	
1/1	1086
1/2	910
1/3	910
2/1	149
2/2 (with short)	250(In) 0(Out)
2/3 (short)	250
3/1	1071
3/2	1071
3/3	1071
4/1	82
5/1	1104
5/2	1173
5/3	943
6/1	340
6/2	337
7/1	820
7/2	910
7/3	852
8/1	121
9/1 (short)	122
9/2 (with short)	262(In) 140(Out)
10/1	671
10/2	910
10/3	910
11/1 (short)	103
11/2 (with short)	308(In) 205(Out)
12/1	1053
12/2	1173
12/3	1174
13/1	340
13/2	337

Full Input Data And Results

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 6: '2033 Base + Committed (including permitted) - PM' (FG2: '2033 Base + Committed (including permitted)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2464	2856
	C	5	452	0	280	737
	D	56	2497	169	0	2722
	Tot.	134	3034	490	2804	6462

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2033 Base + Committed (including permitted) - PM
Junction: A27/Old Shoreham Road	
1/1	1032
1/2	912
1/3	912
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	907
3/2	908
3/3	907
4/1	147
5/1	938
5/2	1133
5/3	963
6/1	251
6/2	239
7/1	1052
7/2	913
7/3	839
8/1	134
9/1 (short)	100
9/2 (with short)	231(In) 131(Out)
10/1	772
10/2	913
10/3	912
11/1 (short)	80
11/2 (with short)	530(In) 450(Out)
12/1	853
12/2	1133
12/3	1132
13/1	251
13/2	239

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 7: '2033 PM Total - Scenario 1' (FG17: '2033 PM Total - Scenario 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2606	2998
	C	5	452	0	280	737
	D	56	2572	169	0	2797
	Tot.	134	3109	490	2946	6679

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2033 PM Total - Scenario 1
Junction: A27/Old Shoreham Road	
1/1	1104
1/2	947
1/3	947
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	932
3/2	933
3/3	932
4/1	147
5/1	1070
5/2	1104
5/3	935
6/1	252
6/2	238
7/1	1125
7/2	947
7/3	874
8/1	134
9/1 (short)	101
9/2 (with short)	231(In) 130(Out)
10/1	845
10/2	947
10/3	947
11/1 (short)	187
11/2 (with short)	530(In) 343(Out)
12/1	985
12/2	1104
12/3	1104
13/1	252
13/2	238

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 8: '2033 PM Total - Scenario 2' (FG18: '2033 PM Total - Scenario 2', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2613	3005
	C	5	452	0	280	737
	D	56	2551	169	0	2776
	Tot.	134	3088	490	2953	6665

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2033 PM Total - Scenario 2
Junction: A27/Old Shoreham Road	
1/1	1107
1/2	949
1/3	949
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	925
3/2	925
3/3	926
4/1	147
5/1	1042
5/2	1107
5/3	939
6/1	252
6/2	238
7/1	1128
7/2	949
7/3	876
8/1	134
9/1 (short)	101
9/2 (with short)	231(In) 130(Out)
10/1	848
10/2	949
10/3	949
11/1 (short)	166
11/2 (with short)	530(In) 364(Out)
12/1	957
12/2	1107
12/3	1108
13/1	252
13/2	238

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 9: '2033 PM Total - Scenario 3' (FG19: '2033 PM Total - Scenario 3', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2554	2946
	C	5	452	0	280	737
	D	56	2544	169	0	2769
	Tot.	134	3081	490	2894	6599

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2033 PM Total - Scenario 3
Junction: A27/Old Shoreham Road	
1/1	1086
1/2	930
1/3	930
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	923
3/2	923
3/3	923
4/1	147
5/1	1039
5/2	1105
5/3	937
6/1	252
6/2	238
7/1	1107
7/2	930
7/3	857
8/1	134
9/1 (short)	101
9/2 (with short)	231(In) 130(Out)
10/1	827
10/2	930
10/3	930
11/1 (short)	165
11/2 (with short)	530(In) 365(Out)
12/1	954
12/2	1105
12/3	1106
13/1	252
13/2	238

Lane Saturation Flows

Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

Scenario 10: '2033 PM Total - Scenario 4' (FG20: '2033 PM Total - Scenario 4', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	2	60	147
	B	73	0	319	2567	2959
	C	5	452	0	280	737
	D	56	2535	169	0	2760
	Tot.	134	3072	490	2907	6603

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2033 PM Total - Scenario 4
Junction: A27/Old Shoreham Road	
1/1	1092
1/2	933
1/3	934
2/1	280
2/2 (with short)	457(In) 0(Out)
2/3 (short)	457
3/1	920
3/2	920
3/3	920
4/1	147
5/1	1038
5/2	1101
5/3	933
6/1	252
6/2	238
7/1	1113
7/2	933
7/3	861
8/1	134
9/1 (short)	101
9/2 (with short)	231(In) 130(Out)
10/1	833
10/2	933
10/3	934
11/1 (short)	167
11/2 (with short)	530(In) 363(Out)
12/1	953
12/2	1101
12/3	1102
13/1	252
13/2	238

Lane Saturation Flows

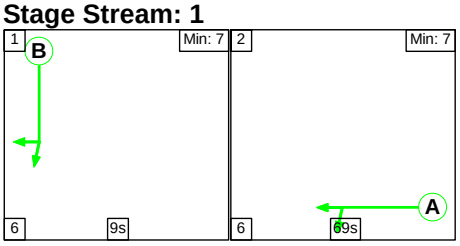
Junction: A27/Old Shoreham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A27 East Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A27 East Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A27 East Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Old Shoreham Rd (New Monks Farm Access) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (Old Shoreham Rd (New Monks Farm Access) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (Old Shoreham Rd (New Monks Farm Access) Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A27 West Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A27 West Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A27 West Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (Sussex Pad Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 East (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 East (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A27 East (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Old Shoreham Rd (Exit) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Old Shoreham Rd (Exit) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A27 West (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A27 West (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A27 West (Exit) Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Sussex Pad (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900

11/1	This lane uses a directly entered Saturation Flow	1900	1900
11/2	This lane uses a directly entered Saturation Flow	1900	1900
12/1	Infinite Saturation Flow	Inf	Inf
12/2	Infinite Saturation Flow	Inf	Inf
12/3	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf

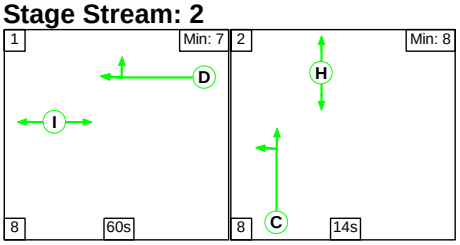
Scenario 1: '2033 Base + Committed (including permitted) - AM' (FG1: '2033 Base + Committed (including permitted)', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

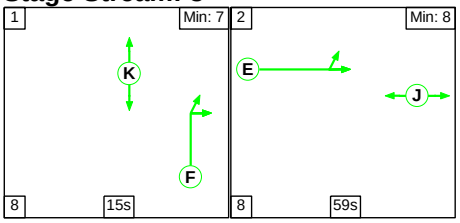
Stage Stream: 1



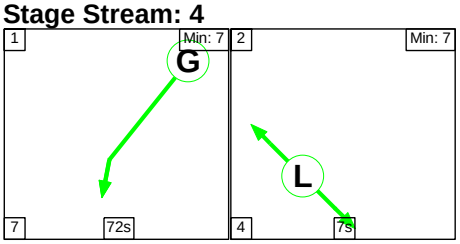
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	60	14
Change Point	10	78

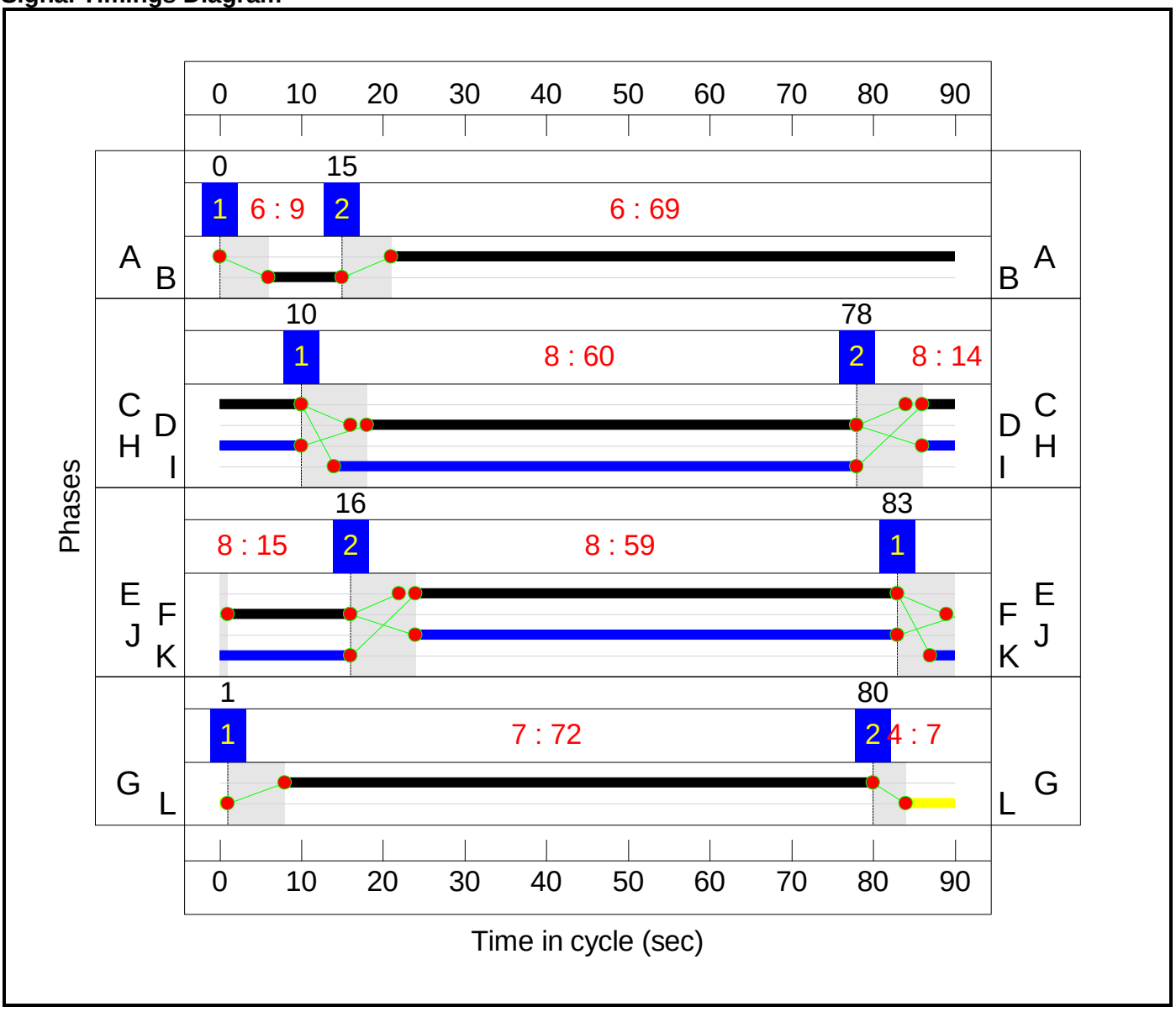
Stage Stream: 3

Stage	1	2
Duration	15	59
Change Point	83	16

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

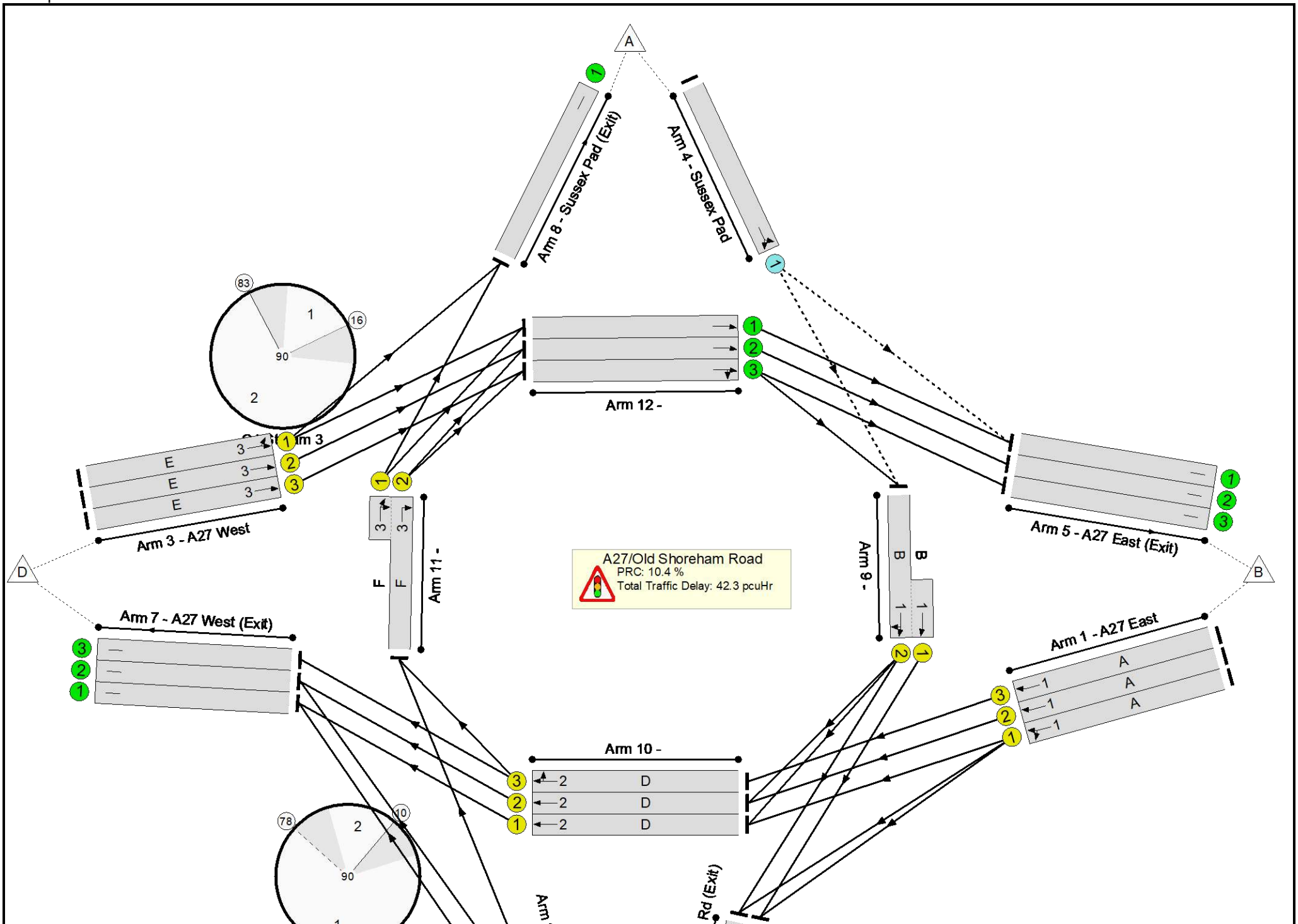
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.6%**
A27/Old Shoreham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.6%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1067	1900	1478	72.2%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	890	1900	1478	60.2%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	891	1900	1478	60.3%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	14	-	149	1900	317	47.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	14	-	250	1900:1900	0+317	0.0 : 78.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	59	-	1032	1900	1267	81.5%
3/2	A27 West Ahead	U	3	N/A	E		1	59	-	1033	1900	1267	81.6%
3/3	A27 West Ahead	U	3	N/A	E		1	59	-	1032	1900	1267	81.5%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	238	34.4%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1061	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1137	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	906	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	340	1900	1541	22.1%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	337	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	801	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	890	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	833	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	262	1900:1900	182+161	76.2 : 76.2%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	60	-	652	1900	1288	50.6%
10/2	Ahead	U	2	N/A	D		1	60	-	890	1900	1288	69.1%
10/3	Ahead Right	U	2	N/A	D		1	60	-	891	1900	1288	69.2%
11/2+11/1	Ahead Right	U	3	N/A	F		1	15	-	308	1900:1900	263+125	79.4 : 79.4%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1010	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1137	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1137	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**24.1**	**18.2**	**0.0**	**42.3**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**24.1**	**18.2**	**0.0**	**42.3**	**-**	**-**	**-**	**-**
1/1	1067	1067	-	-	-	1.5	1.3	-	2.8	9.4	13.3	1.3	14.6
1/2	890	890	-	-	-	1.0	0.8	-	1.8	7.2	9.1	0.8	9.9
1/3	891	891	-	-	-	1.0	0.8	-	1.8	7.2	9.2	0.8	9.9
2/1	149	149	-	-	-	1.4	0.4	-	1.8	44.6	3.4	0.4	3.8
2/2+2/3	250	250	-	-	-	2.5	1.8	-	4.3	61.6	6.0	1.8	7.8
3/1	1032	1032	-	-	-	3.1	2.2	-	5.3	18.5	18.6	2.2	20.8
3/2	1033	1033	-	-	-	3.1	2.2	-	5.3	18.5	18.7	2.2	20.8
3/3	1032	1032	-	-	-	3.1	2.2	-	5.3	18.5	18.6	2.2	20.8
4/1	82	82	82	0	0	0.5	0.3	-	0.8	33.3	1.5	0.3	1.7
5/1	1061	1061	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1137	1137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	906	906	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	337	337	-	-	-	0.1	0.1	-	0.2	2.7	1.0	0.1	1.1
7/1	801	801	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	890	890	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	833	833	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.6	1.5	-	4.2	57.0	3.4	1.5	5.0
10/1	652	652	-	-	-	0.8	0.5	-	1.3	7.4	3.7	0.5	4.2
10/2	890	890	-	-	-	1.2	1.1	-	2.3	9.2	5.3	1.1	6.4
10/3	891	891	-	-	-	1.2	1.1	-	2.3	9.2	5.3	1.1	6.4
11/2+11/1	308	308	-	-	-	0.7	1.8	-	2.6	30.1	1.7	1.8	3.5
12/1	1010	1010	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1137	1137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1137	1137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

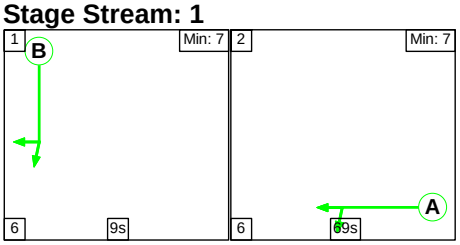
C1	Stream: 1 PRC for Signalled Lanes (%):	18.1	Total Delay for Signalled Lanes (pcuHr):	10.53	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	12.03	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	10.4	Total Delay for Signalled Lanes (pcuHr):	18.48	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	307.9	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s):	90
	PRC Over All Lanes (%):	10.4	Total Delay Over All Lanes(pcuHr):	42.29		

Full Input Data And Results

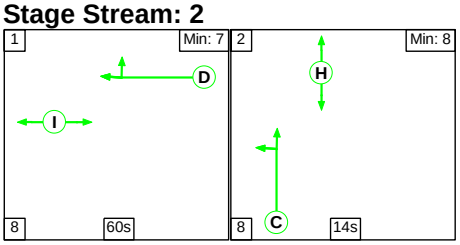
Scenario 2: '2033 AM Total - Scenario 1' (FG13: '2033 AM Total - Scenario 1', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

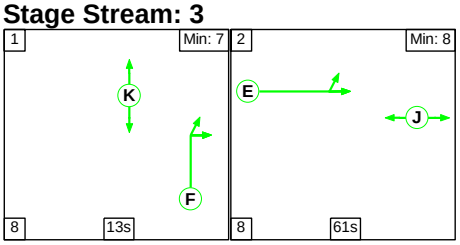
Stage Stream: 1



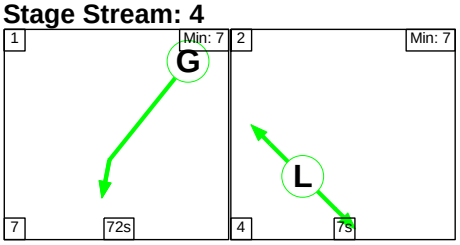
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	60	14
Change Point	8	76

Stage Stream: 3

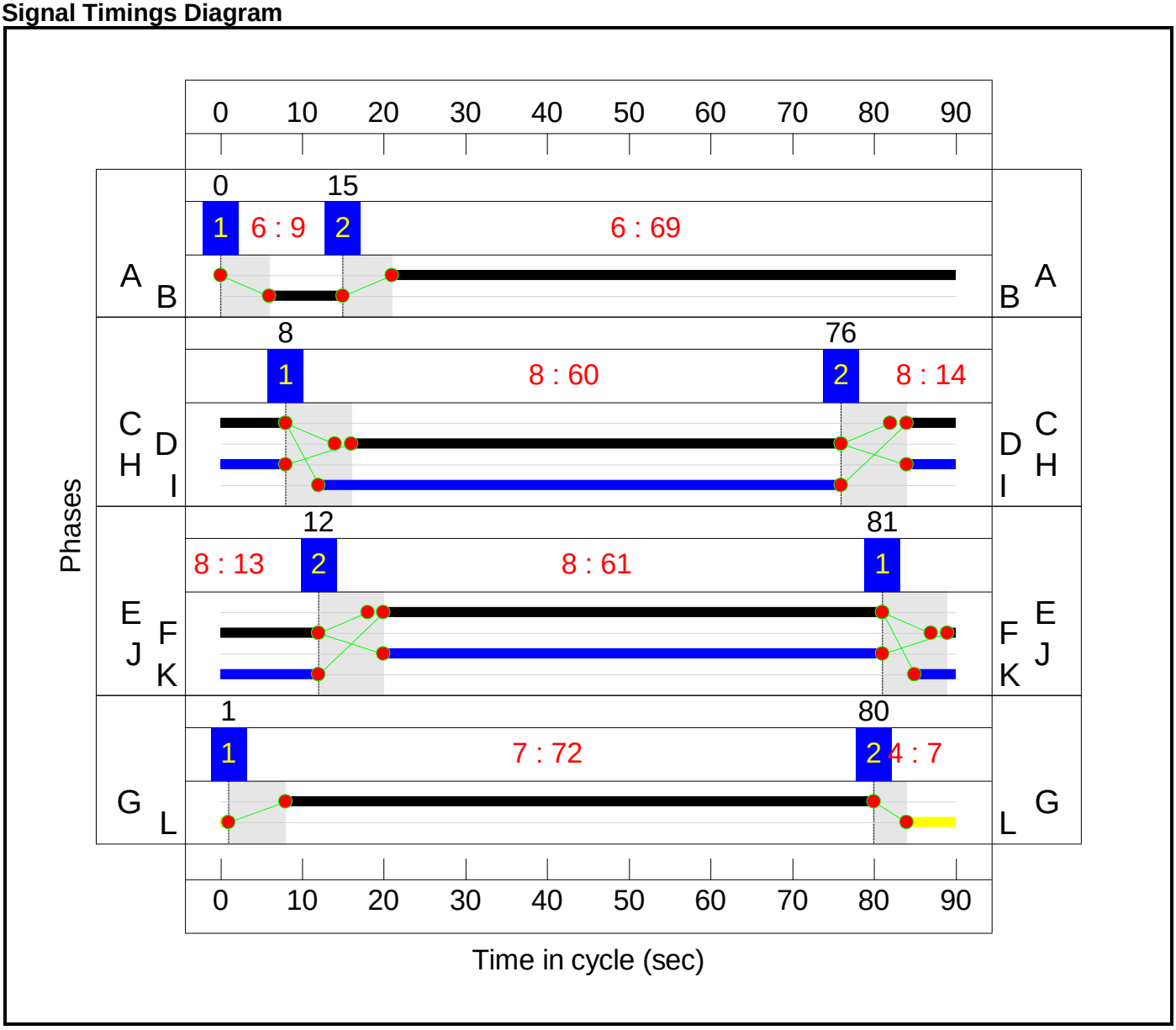
Stage	1	2
Duration	13	61
Change Point	81	12

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

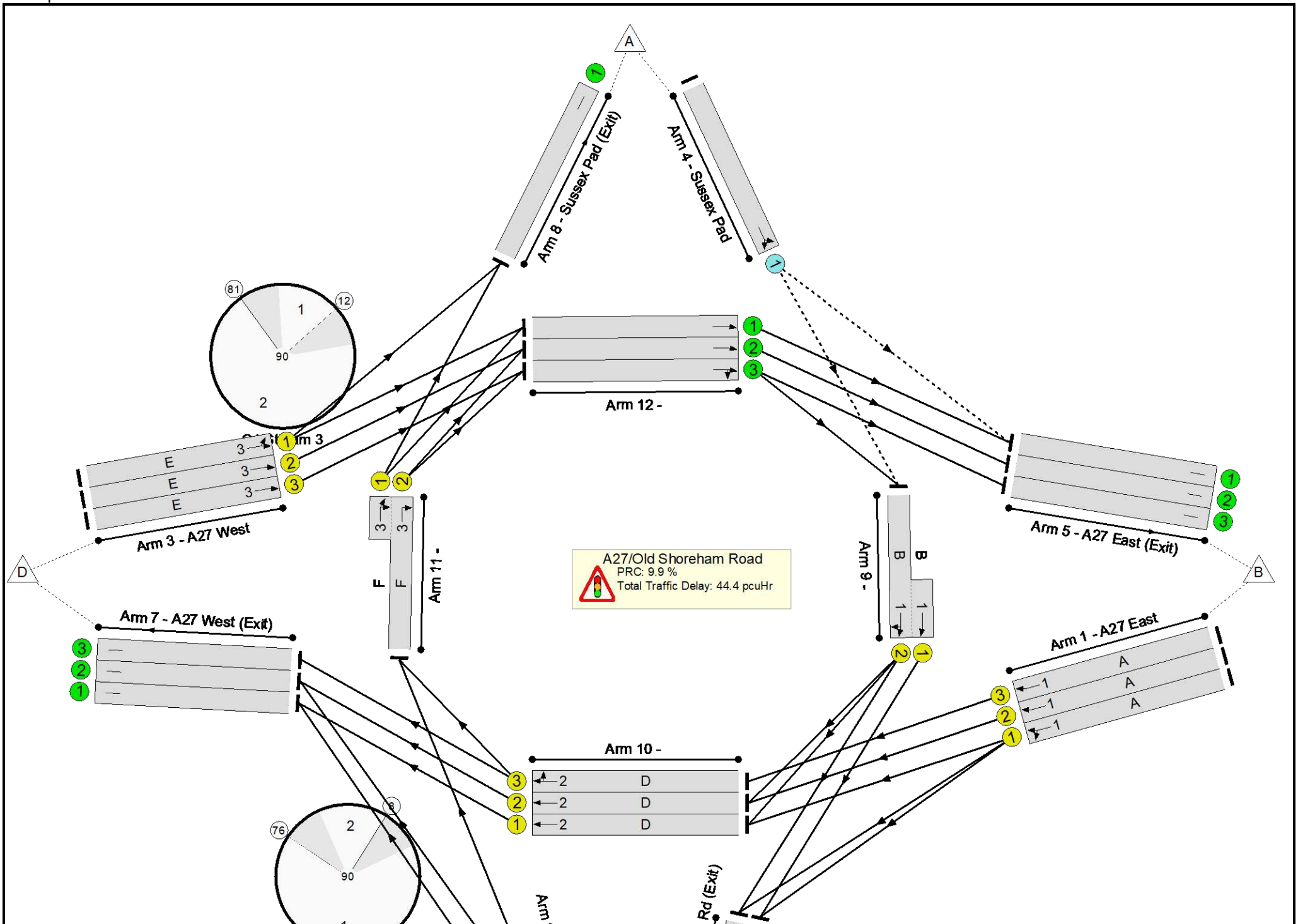
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.9%**
A27/Old Shoreham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	989	1900	1478	66.9%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	984	1900	1478	66.6%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	983	1900	1478	66.5%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	14	-	149	1900	317	47.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	14	-	250	1900:1900	0+317	0.0 : 78.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	61	-	1072	1900	1309	81.9%
3/2	A27 West Ahead	U	3	N/A	E		1	61	-	1072	1900	1309	81.9%
3/3	A27 West Ahead	U	3	N/A	E		1	61	-	1072	1900	1309	81.9%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	216	38.0%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1174	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1140	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	909	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	339	1900	1541	22.0%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	338	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	723	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	984	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	925	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	262	1900:1900	183+148	79.1 : 79.1%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	60	-	574	1900	1288	44.6%
10/2	Ahead	U	2	N/A	D		1	60	-	984	1900	1288	76.4%
10/3	Ahead Right	U	2	N/A	D		1	60	-	983	1900	1288	76.3%
11/2+11/1	Ahead Right	U	3	N/A	F		1	13	-	308	1900:1900	169+214	80.3 : 80.3%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1123	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1140	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1140	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**24.6**	**19.8**	**0.0**	**44.4**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**24.6**	**19.8**	**0.0**	**44.4**	**-**	**-**	**-**	**-**
1/1	989	989	-	-	-	1.3	1.0	-	2.3	8.3	11.3	1.0	12.3
1/2	984	984	-	-	-	1.3	1.0	-	2.3	8.2	11.2	1.0	12.2
1/3	983	983	-	-	-	1.3	1.0	-	2.2	8.2	11.2	1.0	12.2
2/1	149	149	-	-	-	1.4	0.4	-	1.8	44.6	3.4	0.4	3.8
2/2+2/3	250	250	-	-	-	2.5	1.8	-	4.3	61.6	6.0	1.8	7.8
3/1	1072	1072	-	-	-	3.0	2.2	-	5.2	17.5	19.1	2.2	21.3
3/2	1072	1072	-	-	-	3.0	2.2	-	5.2	17.5	19.1	2.2	21.3
3/3	1072	1072	-	-	-	3.0	2.2	-	5.2	17.5	19.1	2.2	21.3
4/1	82	82	82	0	0	0.5	0.3	-	0.8	36.8	1.5	0.3	1.9
5/1	1174	1174	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1140	1140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	909	909	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	339	339	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	338	338	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
7/1	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	984	984	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.8	1.8	-	4.6	62.9	3.6	1.8	5.4
10/1	574	574	-	-	-	0.8	0.4	-	1.2	7.3	3.6	0.4	4.0
10/2	984	984	-	-	-	1.4	1.6	-	3.0	11.1	5.9	1.6	7.5
10/3	983	983	-	-	-	1.4	1.6	-	3.0	11.1	5.9	1.6	7.5
11/2+11/1	308	308	-	-	-	0.8	1.9	-	2.8	32.3	2.3	1.9	4.3
12/1	1123	1123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1140	1140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1140	1140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

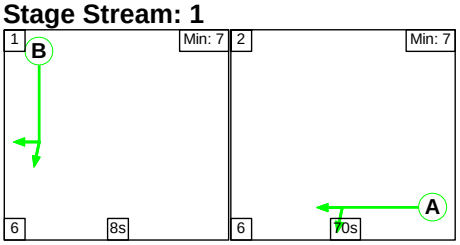
C1	Stream: 1 PRC for Signalled Lanes (%):	13.8	Total Delay for Signalled Lanes (pcuHr):	11.36	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	13.35	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	9.9	Total Delay for Signalled Lanes (pcuHr):	18.36	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	309.1	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s): 90
	PRC Over All Lanes (%):	9.9	Total Delay Over All Lanes(pcuHr):	44.40	

Full Input Data And Results

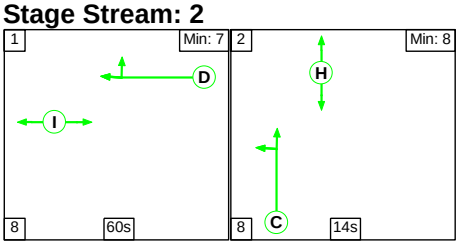
Scenario 3: '2033 AM Total - Scenario 2' (FG14: '2033 AM Total - Scenario 2', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

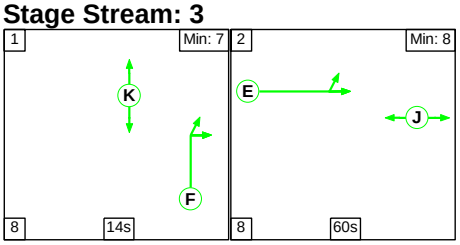
Stage Stream: 1



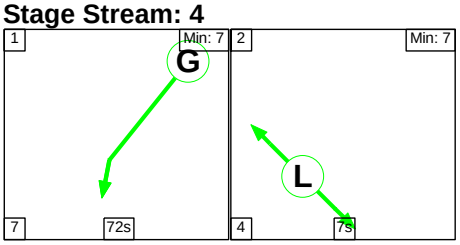
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	8	70
Change Point	0	14

Stage Stream: 2

Stage	1	2
Duration	60	14
Change Point	7	75

Stage Stream: 3

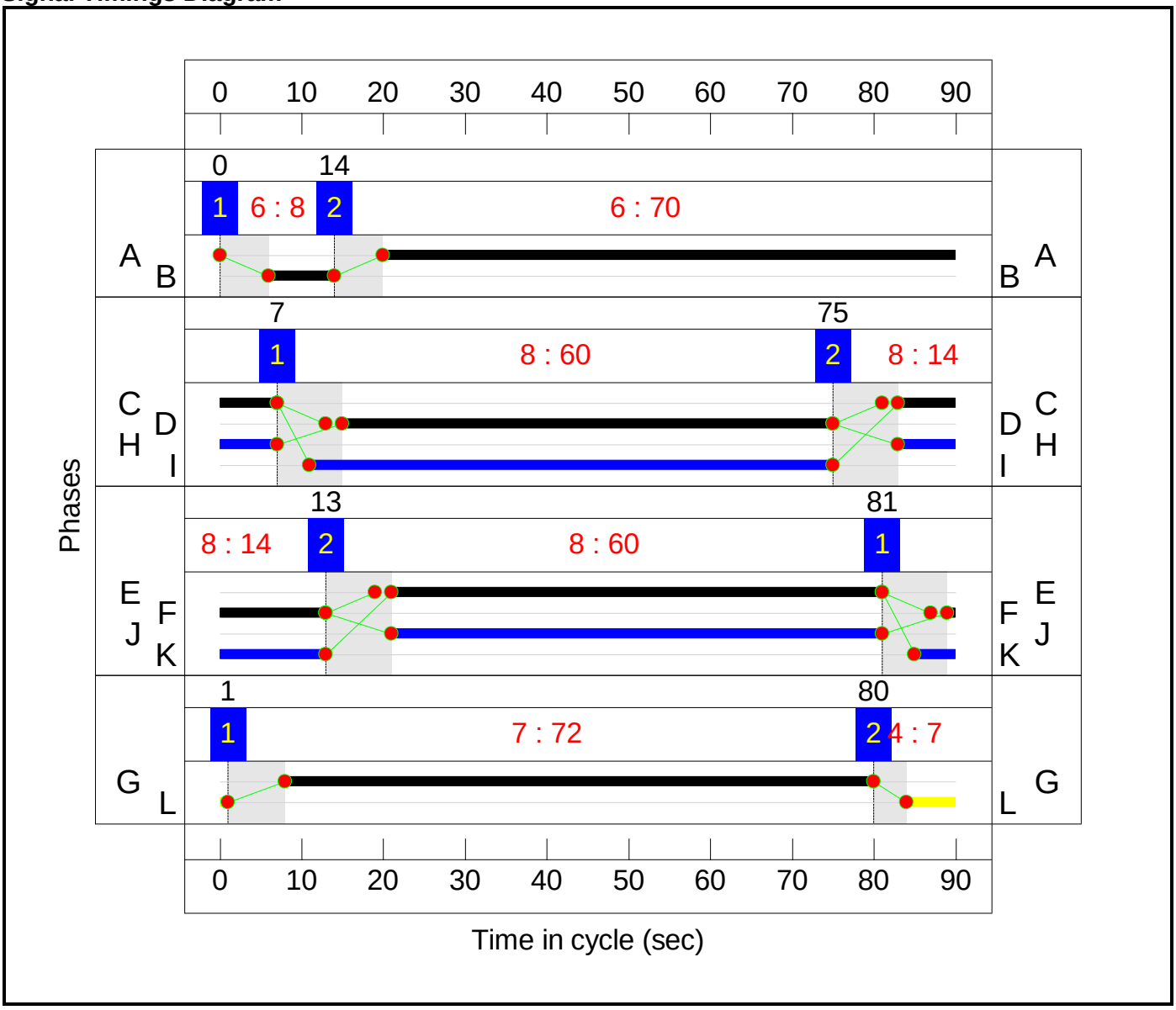
Stage	1	2
Duration	14	60
Change Point	81	13

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

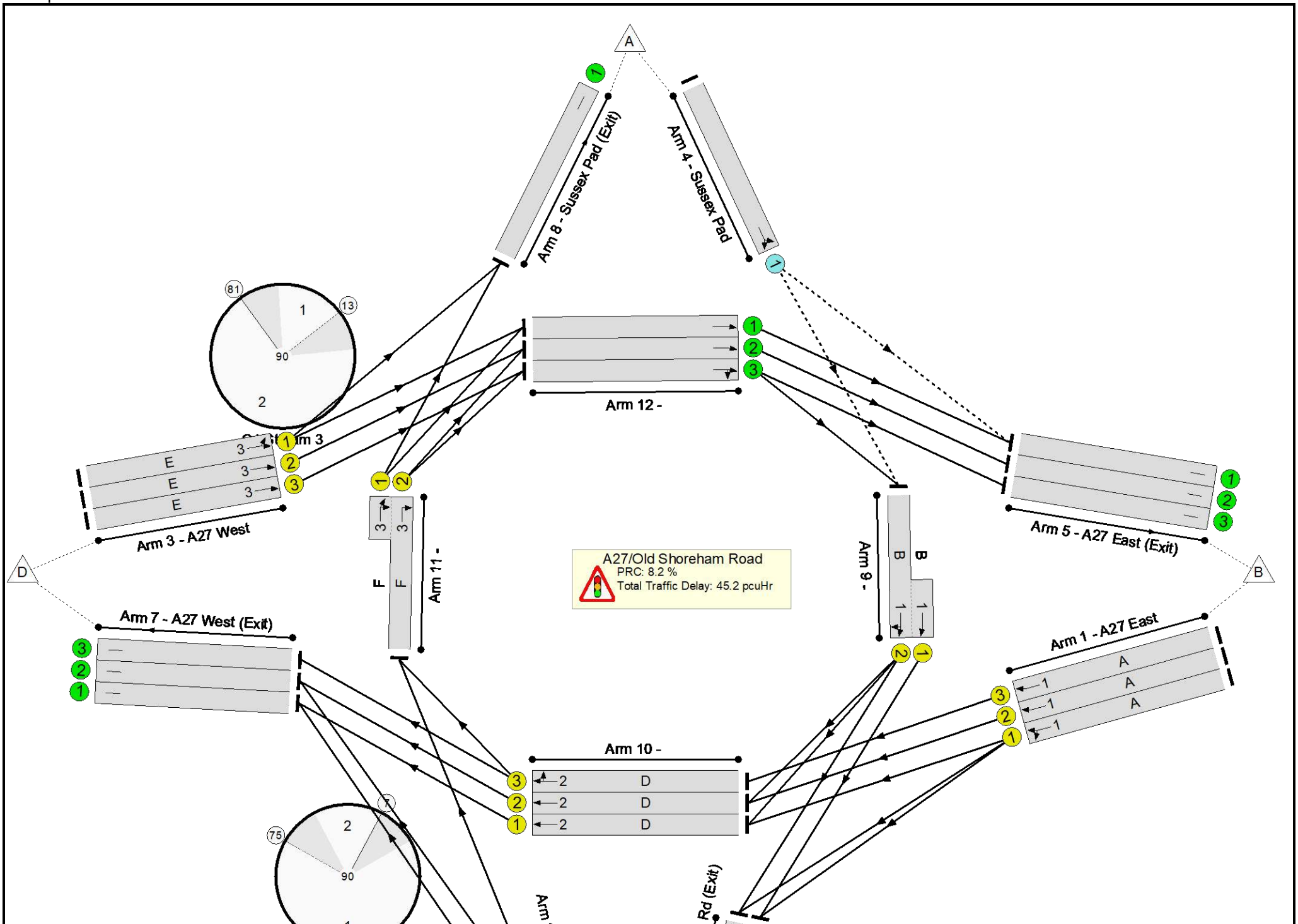
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.2%**
A27/Old Shoreham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.2%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	70	-	1092	1900	1499	72.9%
1/2	A27 East Ahead	U	1	N/A	A		1	70	-	924	1900	1499	61.6%
1/3	A27 East Ahead	U	1	N/A	A		1	70	-	924	1900	1499	61.6%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	14	-	149	1900	317	47.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	14	-	250	1900:1900	0+317	0.0 : 78.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
3/2	A27 West Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
3/3	A27 West Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	227	36.2%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1171	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	941	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	340	1900	1541	22.1%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	337	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	826	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	866	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	8	-	262	1900:1900	171+149	81.7 : 81.7%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	60	-	677	1900	1288	52.6%
10/2	Ahead	U	2	N/A	D		1	60	-	924	1900	1288	71.8%
10/3	Ahead Right	U	2	N/A	D		1	60	-	924	1900	1288	71.8%
11/2+11/1	Ahead Right	U	3	N/A	F		1	14	-	308	1900:1900	244+130	82.4 : 82.4%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1057	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1171	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1172	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**24.8**	**20.3**	**0.0**	**45.2**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**24.8**	**20.3**	**0.0**	**45.2**	**-**	**-**	**-**	**-**
1/1	1092	1092	-	-	-	1.4	1.3	-	2.8	9.1	13.3	1.3	14.7
1/2	924	924	-	-	-	1.0	0.8	-	1.8	7.0	9.2	0.8	10.0
1/3	924	924	-	-	-	1.0	0.8	-	1.8	7.0	9.2	0.8	10.0
2/1	149	149	-	-	-	1.4	0.4	-	1.8	44.6	3.4	0.4	3.8
2/2+2/3	250	250	-	-	-	2.5	1.8	-	4.3	61.6	6.0	1.8	7.8
3/1	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
3/2	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
3/3	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
4/1	82	82	82	0	0	0.5	0.3	-	0.8	35.0	1.5	0.3	1.8
5/1	1108	1108	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1171	1171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	941	941	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	337	337	-	-	-	0.1	0.1	-	0.2	2.7	1.0	0.1	1.1
7/1	826	826	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	866	866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.8	2.1	-	4.8	66.5	3.5	2.1	5.6
10/1	677	677	-	-	-	1.0	0.6	-	1.5	8.0	4.4	0.6	4.9
10/2	924	924	-	-	-	1.4	1.3	-	2.6	10.3	5.5	1.3	6.7
10/3	924	924	-	-	-	1.4	1.3	-	2.6	10.3	5.5	1.3	6.7
11/2+11/1	308	308	-	-	-	0.7	2.2	-	2.9	34.4	1.8	2.2	4.0
12/1	1057	1057	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1171	1171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1172	1172	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

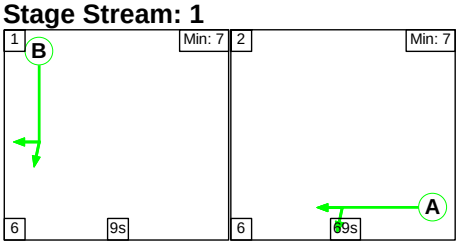
C1	Stream: 1 PRC for Signalled Lanes (%):	10.1	Total Delay for Signalled Lanes (pcuHr):	11.21	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	12.92	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	8.2	Total Delay for Signalled Lanes (pcuHr):	19.75	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	307.9	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s):	90
	PRC Over All Lanes (%):	8.2	Total Delay Over All Lanes(pcuHr):	45.17		

Full Input Data And Results

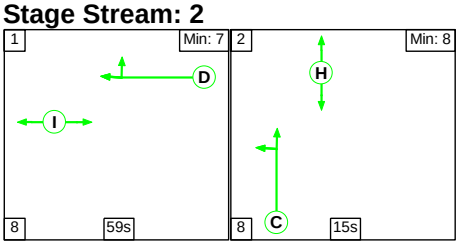
Scenario 4: '2033 AM Total - Scenario 3' (FG15: '2033 AM Total - Scenario 3', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

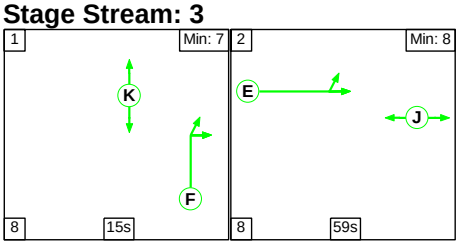
Stage Stream: 1



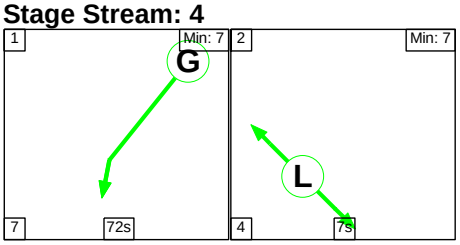
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	59	15
Change Point	8	75

Stage Stream: 3

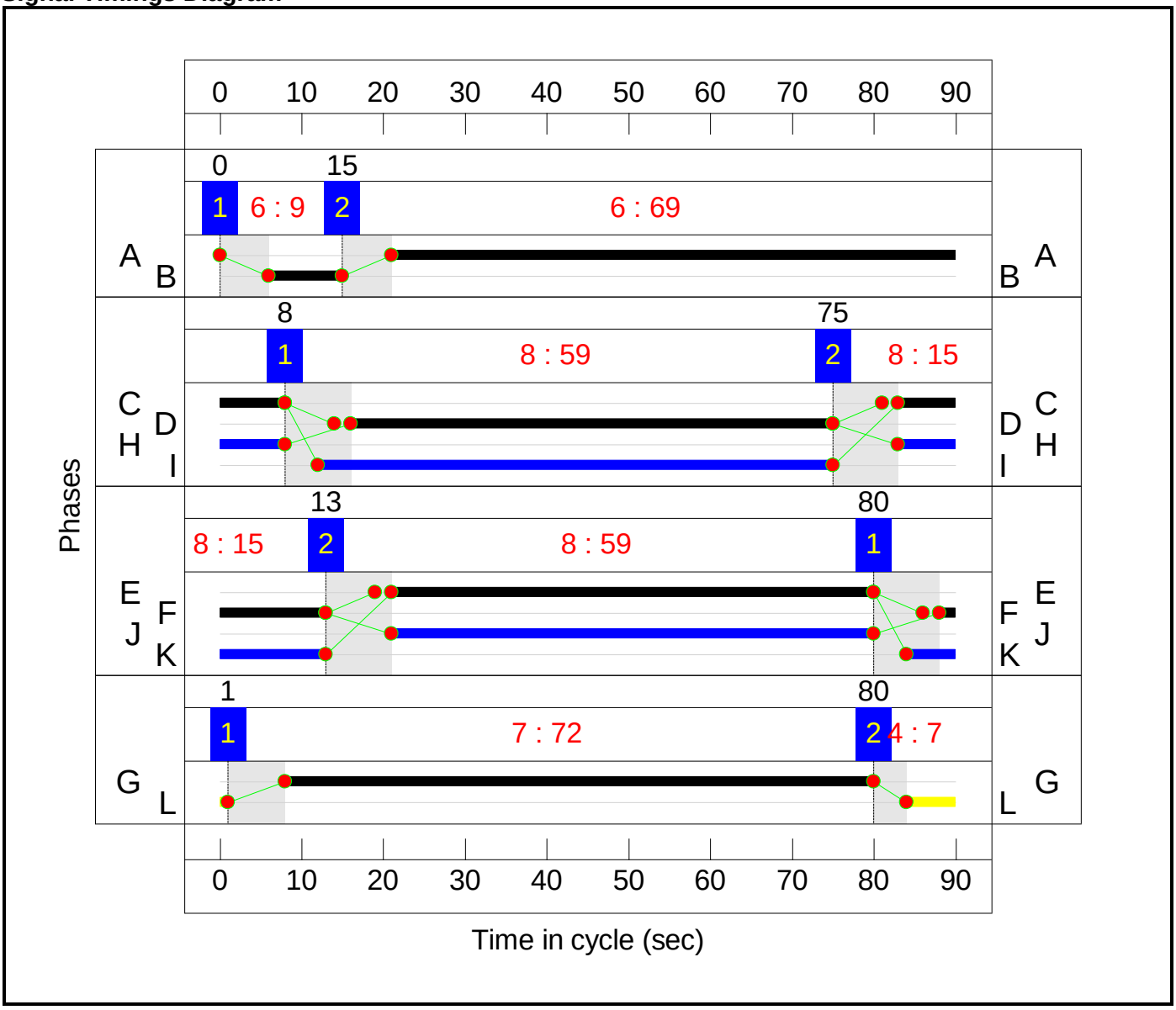
Stage	1	2
Duration	15	59
Change Point	80	13

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

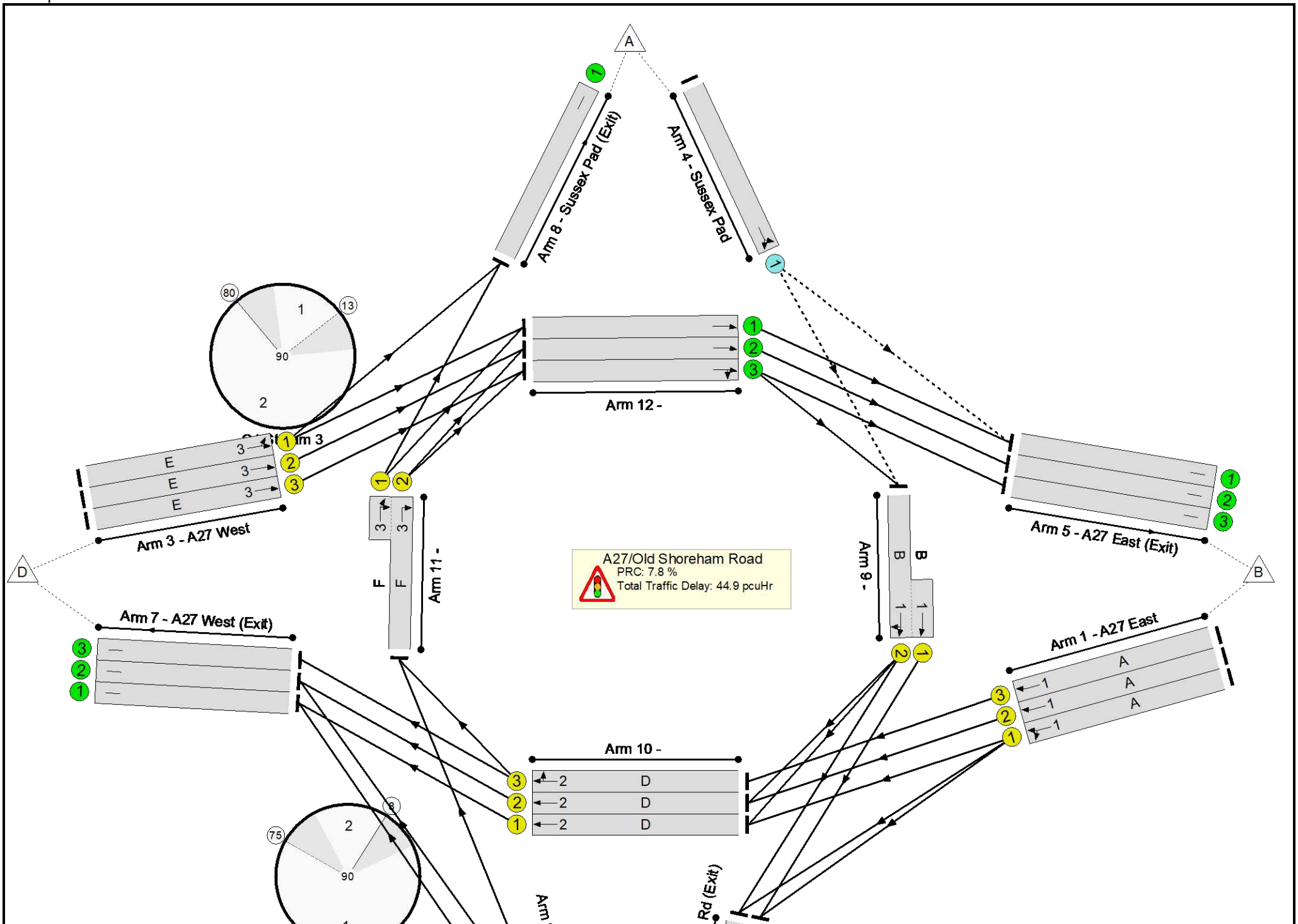
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.5%**
A27/Old Shoreham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.5%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1090	1900	1478	73.8%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	912	1900	1478	61.7%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	912	1900	1478	61.7%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	15	-	149	1900	338	44.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	15	-	250	1900:1900	0+338	0.0 : 74.0%
3/1	A27 West Left Ahead	U	3	N/A	E		1	59	-	1058	1900	1267	83.5%
3/2	A27 West Ahead	U	3	N/A	E		1	59	-	1057	1900	1267	83.4%
3/3	A27 West Ahead	U	3	N/A	E		1	59	-	1058	1900	1267	83.5%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	238	34.5%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1080	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1165	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	340	1900	1541	22.1%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	337	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	824	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	912	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	854	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	262	1900:1900	182+161	76.2 : 76.2%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	59	-	675	1900	1267	53.3%
10/2	Ahead	U	2	N/A	D		1	59	-	912	1900	1267	72.0%
10/3	Ahead Right	U	2	N/A	D		1	59	-	912	1900	1267	72.0%
11/2+11/1	Ahead Right	U	3	N/A	F		1	15	-	308	1900:1900	268+114	80.6 : 80.6%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1029	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1165	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1166	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**25.5**	**19.4**	**0.0**	**44.9**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**25.5**	**19.4**	**0.0**	**44.9**	**-**	**-**	**-**	**-**
1/1	1090	1090	-	-	-	1.6	1.4	-	3.0	9.8	13.9	1.4	15.3
1/2	912	912	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
1/3	912	912	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
2/1	149	149	-	-	-	1.4	0.4	-	1.8	42.5	3.3	0.4	3.7
2/2+2/3	250	250	-	-	-	2.4	1.4	-	3.8	54.9	5.9	1.4	7.3
3/1	1058	1058	-	-	-	3.3	2.5	-	5.8	19.7	19.7	2.5	22.2
3/2	1057	1057	-	-	-	3.3	2.5	-	5.8	19.7	19.7	2.5	22.1
3/3	1058	1058	-	-	-	3.3	2.5	-	5.8	19.7	19.7	2.5	22.2
4/1	82	82	82	0	0	0.5	0.3	-	0.8	33.4	1.5	0.3	1.7
5/1	1080	1080	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1165	1165	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	935	935	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	337	337	-	-	-	0.1	0.1	-	0.2	2.7	1.0	0.1	1.1
7/1	824	824	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	912	912	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	854	854	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.8	1.5	-	4.3	59.4	3.4	1.5	5.0
10/1	675	675	-	-	-	1.0	0.6	-	1.6	8.4	4.4	0.6	4.9
10/2	912	912	-	-	-	1.4	1.3	-	2.7	10.6	5.4	1.3	6.7
10/3	912	912	-	-	-	1.4	1.3	-	2.7	10.6	5.4	1.3	6.7
11/2+11/1	308	308	-	-	-	0.7	2.0	-	2.7	31.6	1.6	2.0	3.6
12/1	1029	1029	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1165	1165	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1166	1166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

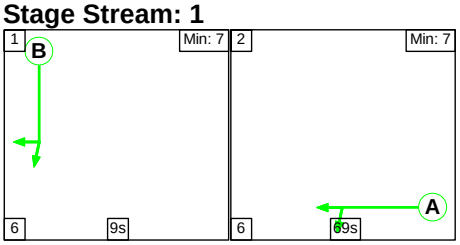
C1	Stream: 1 PRC for Signalled Lanes (%):	18.1	Total Delay for Signalled Lanes (pcuHr):	11.07	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	21.6	Total Delay for Signalled Lanes (pcuHr):	12.53	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	7.8	Total Delay for Signalled Lanes (pcuHr):	20.06	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	307.9	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s):	90
	PRC Over All Lanes (%):	7.8	Total Delay Over All Lanes(pcuHr):	44.91		

Full Input Data And Results

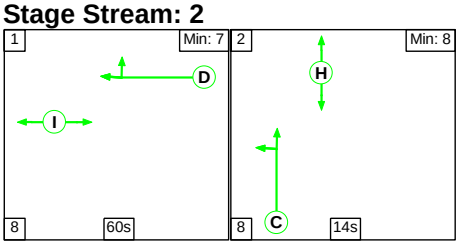
Scenario 5: '2033 AM Total - Scenario 4' (FG16: '2033 AM Total - Scenario 4', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

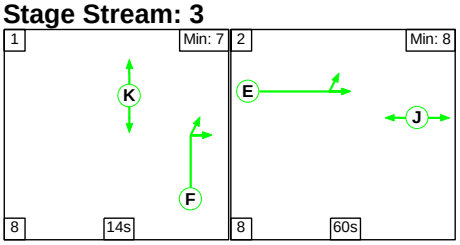
Stage Stream: 1



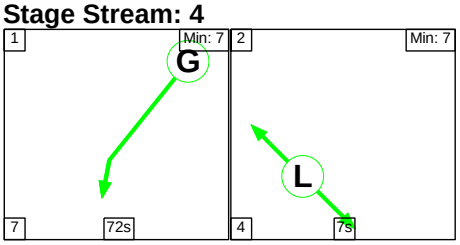
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	60	14
Change Point	9	77

Stage Stream: 3

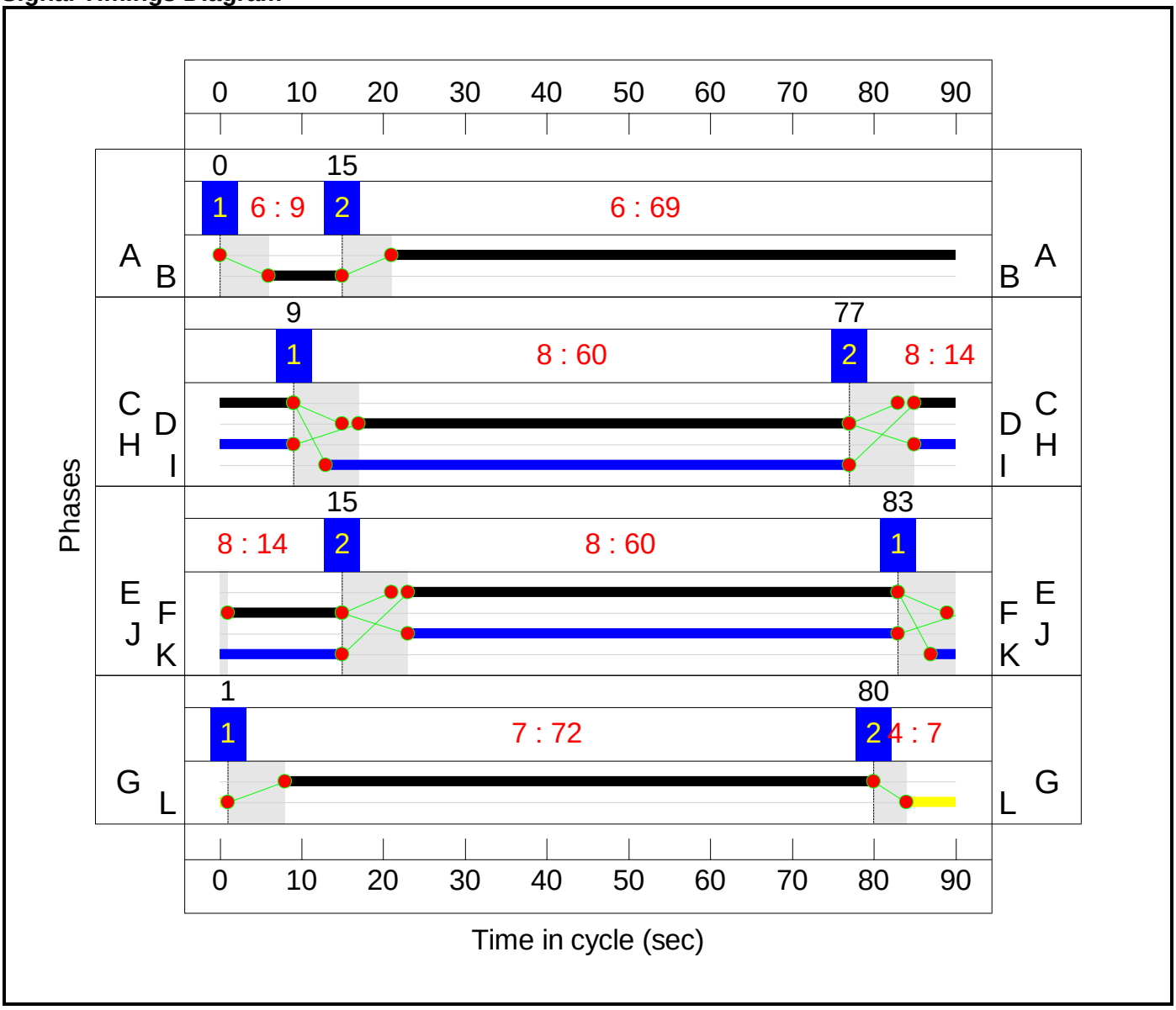
Stage	1	2
Duration	14	60
Change Point	83	15

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	1	80

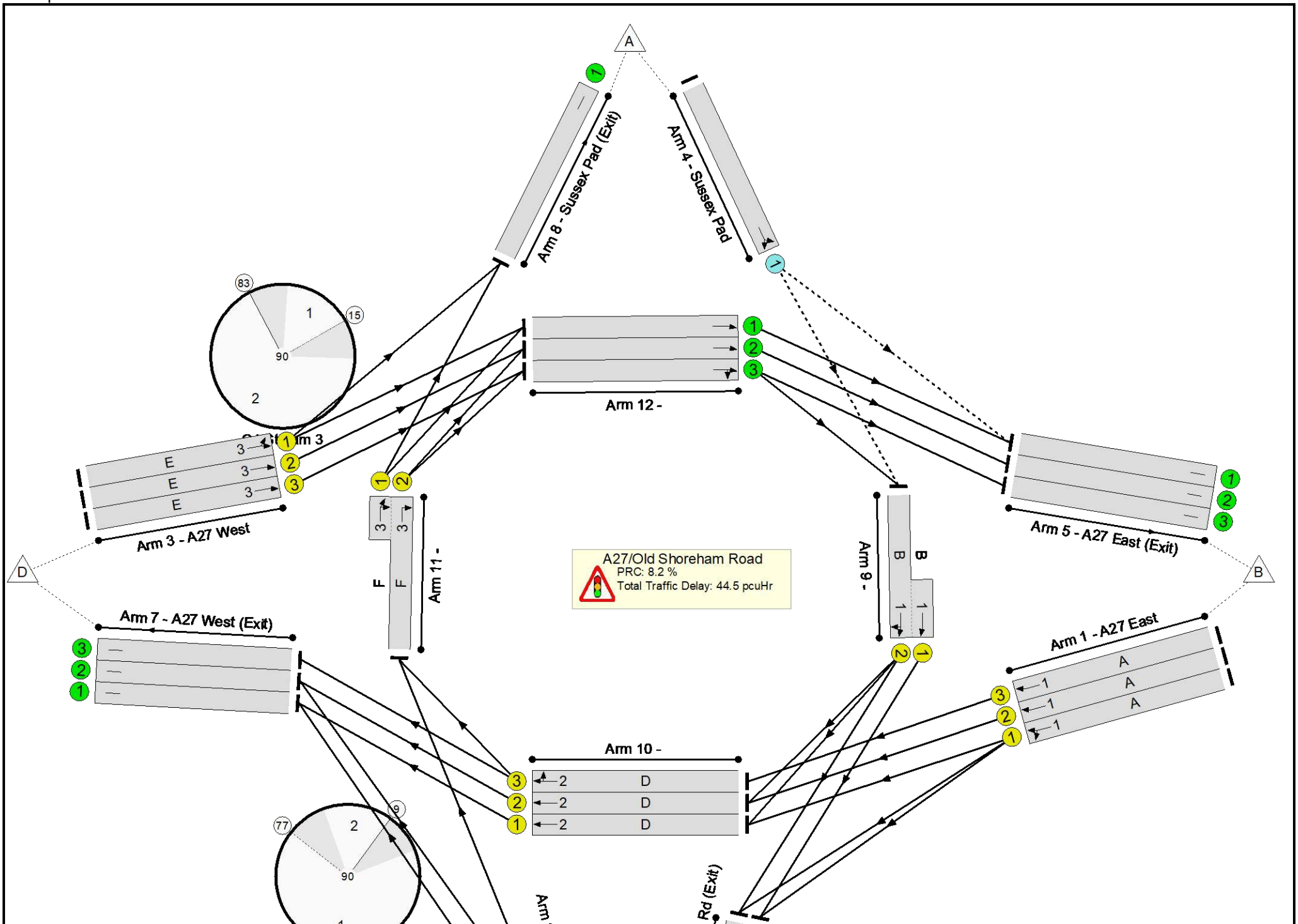
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.2%**
A27/Old Shoreham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.2%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1086	1900	1478	73.5%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	910	1900	1478	61.6%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	910	1900	1478	61.6%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	14	-	149	1900	317	47.1%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	14	-	250	1900:1900	0+317	0.0 : 78.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
3/2	A27 West Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
3/3	A27 West Ahead	U	3	N/A	E		1	60	-	1071	1900	1288	83.2%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	82	1900	227	36.2%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	943	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	340	1900	1541	22.1%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	337	1900	1541	21.9%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	910	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	852	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	262	1900:1900	183+159	76.7 : 76.7%

Full Input Data And Results

10/1	Ahead	U	2	N/A	D		1	60	-	671	1900	1288	52.1%
10/2	Ahead	U	2	N/A	D		1	60	-	910	1900	1288	70.7%
10/3	Ahead Right	U	2	N/A	D		1	60	-	910	1900	1288	70.7%
11/2+11/1	Ahead Right	U	3	N/A	F		1	14	-	308	1900:1900	246+124	83.2 : 83.2%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1053	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1174	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**82**	**0**	**0**	**24.7**	**19.8**	**0.0**	**44.5**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**82**	**0**	**0**	**24.7**	**19.8**	**0.0**	**44.5**	**-**	**-**	**-**	**-**
1/1	1086	1086	-	-	-	1.6	1.4	-	2.9	9.8	13.9	1.4	15.3
1/2	910	910	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
1/3	910	910	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
2/1	149	149	-	-	-	1.4	0.4	-	1.8	44.6	3.4	0.4	3.8
2/2+2/3	250	250	-	-	-	2.5	1.8	-	4.3	61.6	6.0	1.8	7.8
3/1	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
3/2	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
3/3	1071	1071	-	-	-	3.2	2.4	-	5.6	18.8	19.6	2.4	22.1
4/1	82	82	82	0	0	0.5	0.3	-	0.8	35.0	1.5	0.3	1.8
5/1	1104	1104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1173	1173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	943	943	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.1	0.1	-	0.2	2.6	0.9	0.1	1.1
6/2	337	337	-	-	-	0.1	0.1	-	0.2	2.7	1.0	0.1	1.1
7/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	910	910	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	262	262	-	-	-	2.6	1.6	-	4.2	57.7	3.4	1.6	5.0
10/1	671	671	-	-	-	0.9	0.5	-	1.4	7.7	4.0	0.5	4.5
10/2	910	910	-	-	-	1.2	1.2	-	2.4	9.7	4.9	1.2	6.1
10/3	910	910	-	-	-	1.2	1.2	-	2.4	9.7	4.9	1.2	6.1
11/2+11/1	308	308	-	-	-	0.7	2.3	-	3.1	35.7	1.8	2.3	4.1
12/1	1053	1053	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1173	1173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1174	1174	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

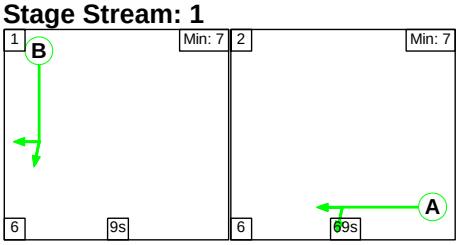
C1	Stream: 1 PRC for Signalled Lanes (%):	17.4	Total Delay for Signalled Lanes (pcuHr):	10.89	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	12.45	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	8.2	Total Delay for Signalled Lanes (pcuHr):	19.86	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	307.9	Total Delay for Signalled Lanes (pcuHr):	0.50	Cycle Time (s):	90
	PRC Over All Lanes (%):	8.2	Total Delay Over All Lanes(pcuHr):	44.50		

Full Input Data And Results

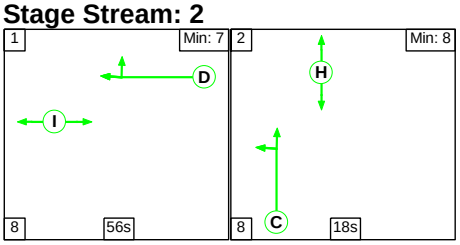
Scenario 6: '2033 Base + Committed (including permitted) - PM' (FG2: '2033 Base + Committed (including permitted)', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

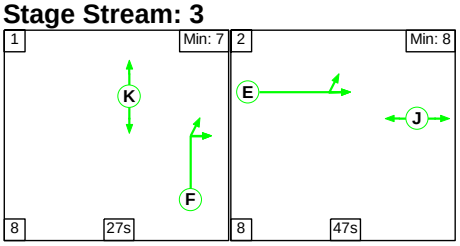
Stage Stream: 1



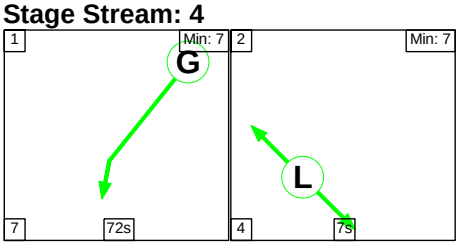
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	5	69

Stage Stream: 3

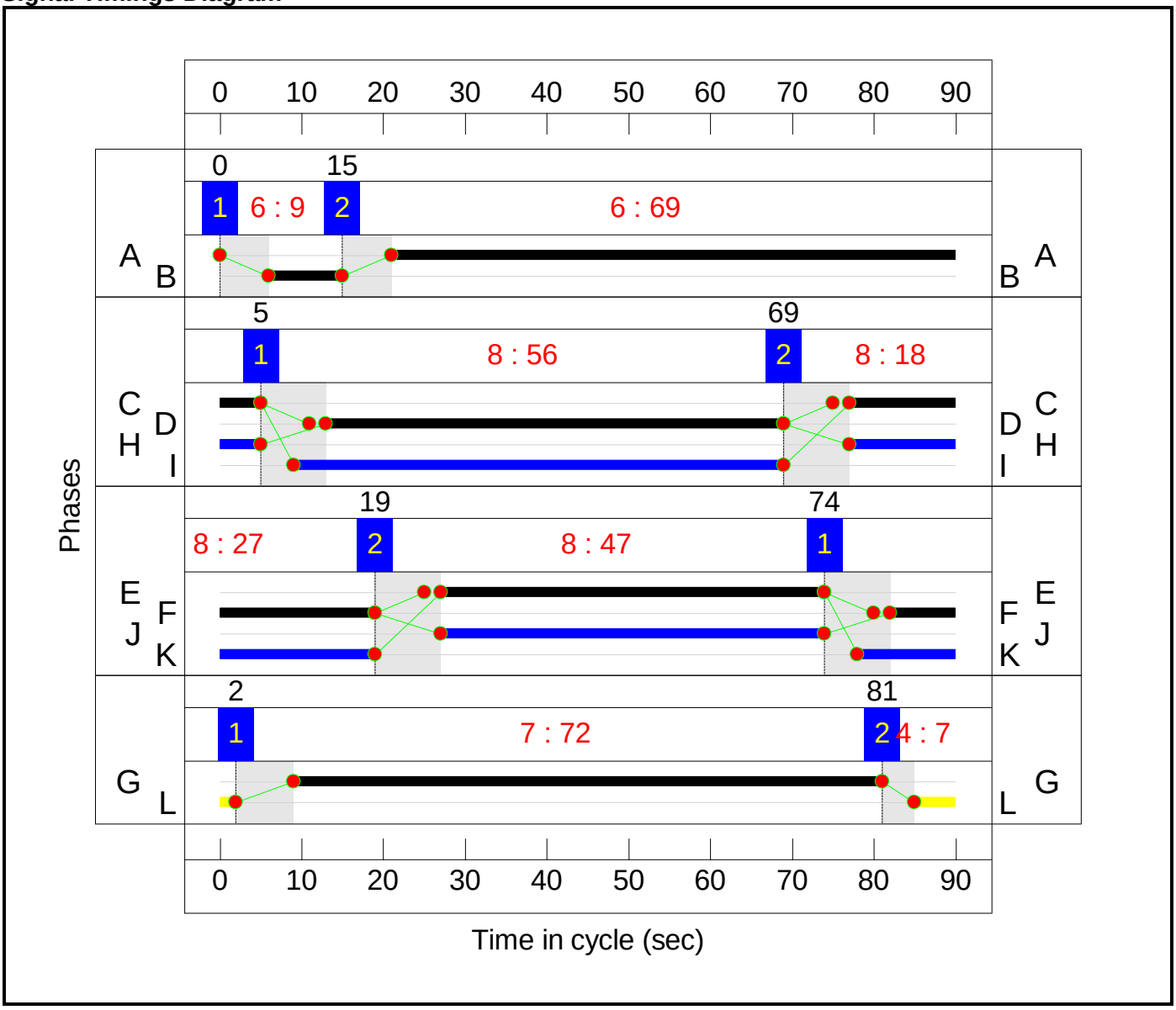
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

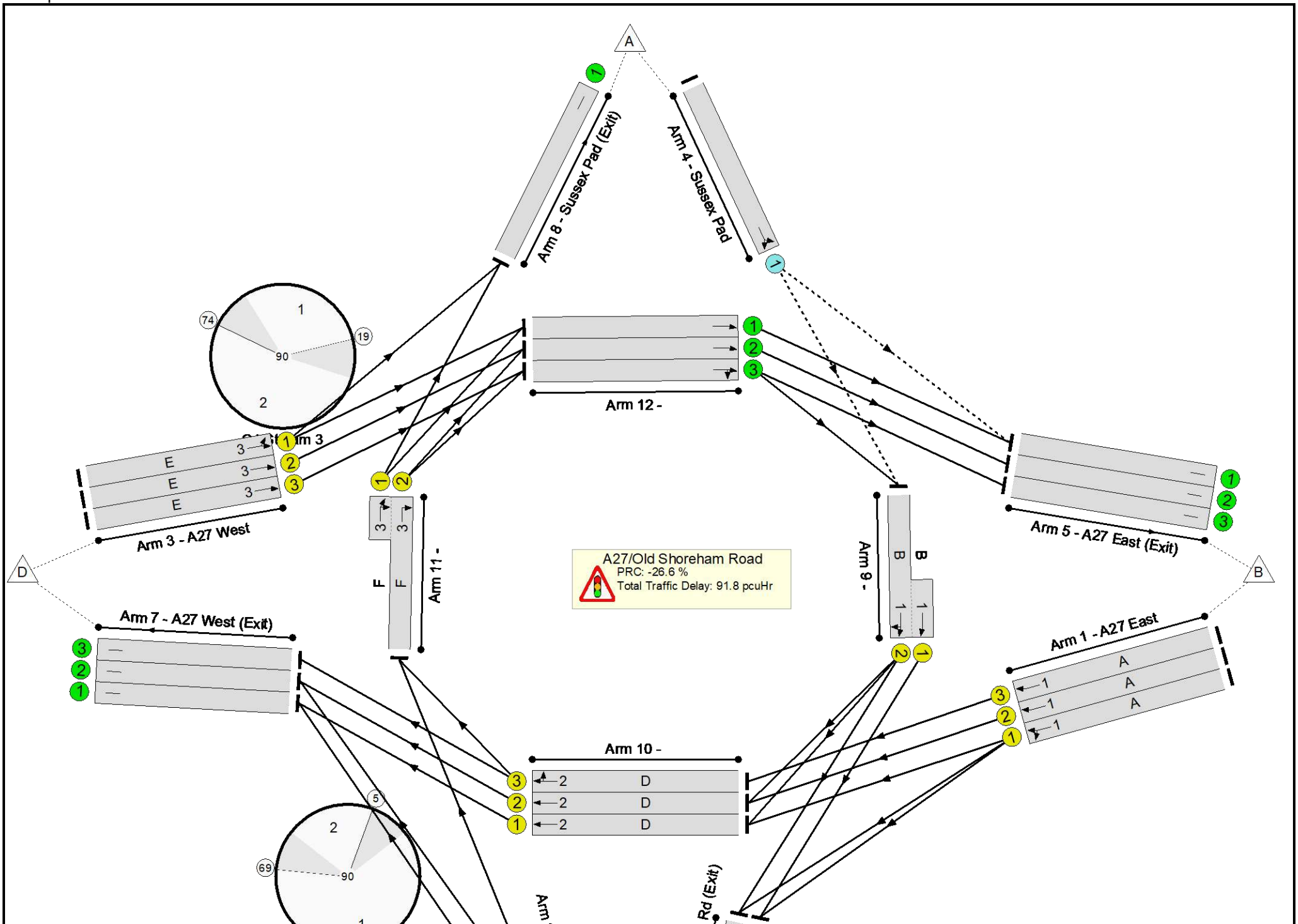
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1032	1900	1478	69.8%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	912	1900	1478	61.7%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	912	1900	1478	61.7%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	907	1900	1013	89.5%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	908	1900	1013	89.6%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	907	1900	1013	89.5%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	330	44.5%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	938	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1133	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	963	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	251	1900	1541	16.3%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	239	1900	1541	15.5%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1052	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	913	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+140	71.2 : 71.2%
10/1	Ahead	U	2	N/A	D		1	56	-	772	1900	1203	64.2%
10/2	Ahead	U	2	N/A	D		1	56	-	913	1900	1203	75.9%
10/3	Ahead Right	U	2	N/A	D		1	56	-	912	1900	1203	75.8%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	514+91	76.8 : 86.6%
12/1	Ahead	U	N/A	N/A	-		-	-	-	853	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1133	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1132	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	251	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**36.9**	**54.9**	**0.0**	**91.8**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**36.9**	**54.9**	**0.0**	**91.8**	**-**	**-**	**-**	**-**
1/1	1032	1032	-	-	-	1.4	1.2	-	2.5	8.9	12.3	1.2	13.5
1/2	912	912	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
1/3	912	912	-	-	-	1.1	0.8	-	1.9	7.4	9.6	0.8	10.4
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.3	31.6	-	38.9	306.4	13.6	31.6	45.1
3/1	907	907	-	-	-	4.7	4.0	-	8.7	34.5	20.2	4.0	24.1
3/2	908	908	-	-	-	4.7	4.0	-	8.7	34.7	20.2	4.0	24.2
3/3	907	907	-	-	-	4.7	4.0	-	8.7	34.5	20.2	4.0	24.1
4/1	147	147	147	0	0	0.6	0.4	-	1.0	24.4	2.3	0.4	2.7
5/1	938	938	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1105	1105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	935	935	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	251	251	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	239	239	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1052	1052	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	839	839	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.5	53.8	3.2	1.2	4.4
10/1	772	772	-	-	-	1.6	0.9	-	2.5	11.5	6.7	0.9	7.6
10/2	913	913	-	-	-	1.9	1.6	-	3.5	13.8	6.9	1.6	8.5
10/3	912	912	-	-	-	1.9	1.5	-	3.5	13.8	6.9	1.5	8.5
11/2+11/1	474	474	-	-	-	0.8	1.8	-	2.5	19.3	1.8	1.8	3.5
12/1	853	853	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1105	1105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1104	1104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	251	251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

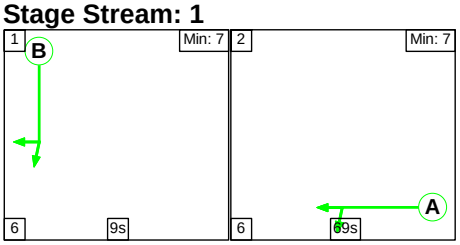
C1	Stream: 1 PRC for Signalled Lanes (%):	26.4	Total Delay for Signalled Lanes (pcuHr):	9.77	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	52.04	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	0.4	Total Delay for Signalled Lanes (pcuHr):	28.67	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	452.6	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s):	90
	PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	91.82		

Full Input Data And Results

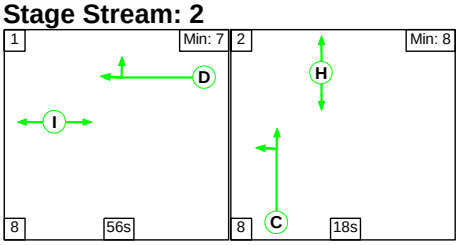
Scenario 7: '2033 PM Total - Scenario 1' (FG17: '2033 PM Total - Scenario 1', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

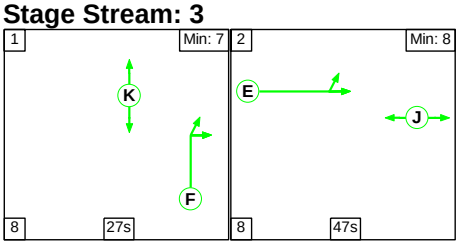
Stage Stream: 1



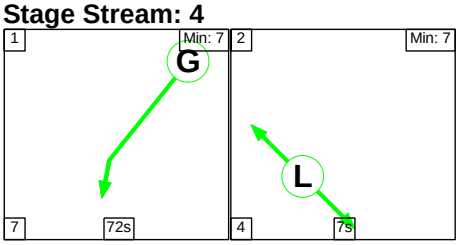
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	4	68

Stage Stream: 3

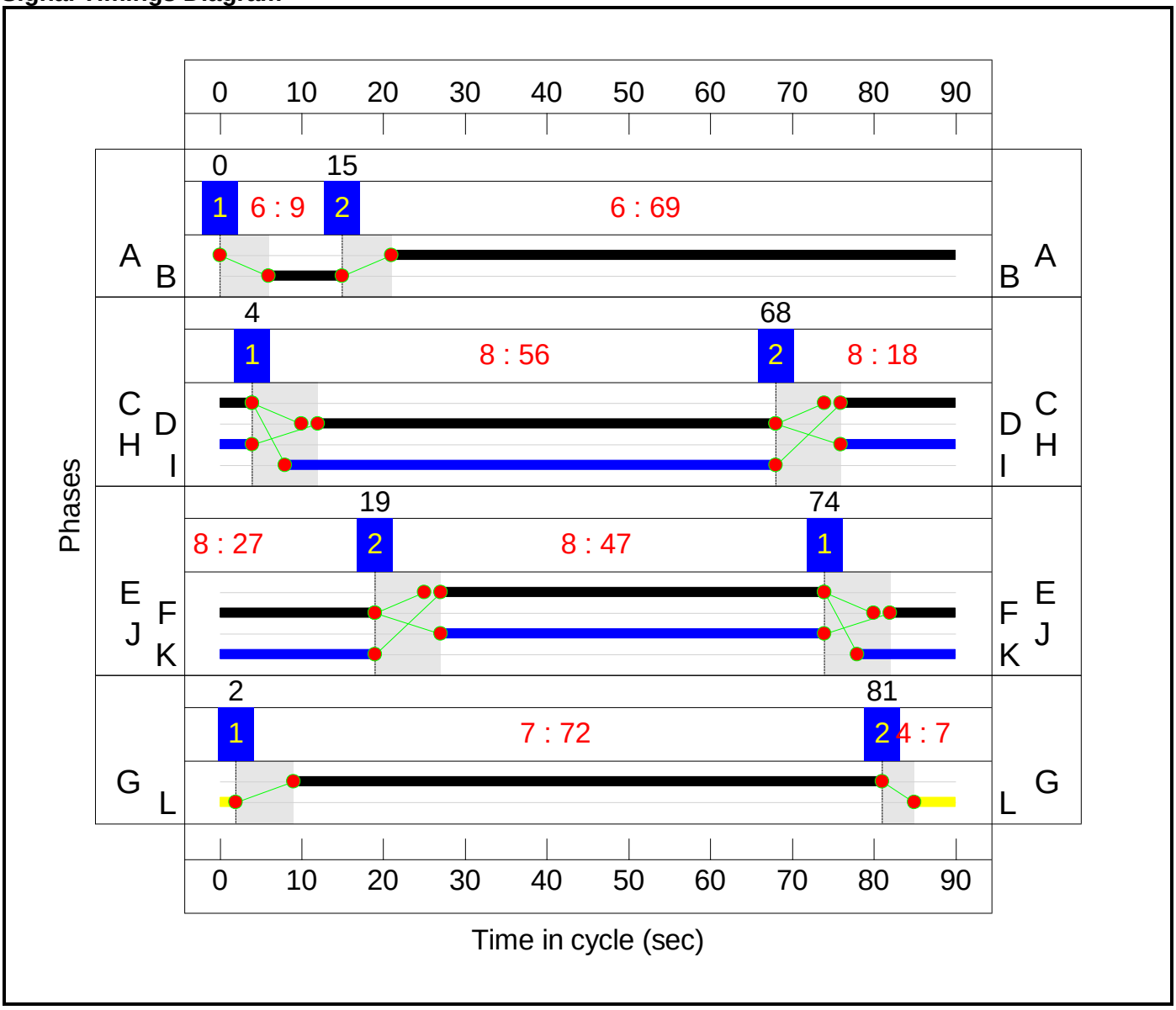
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

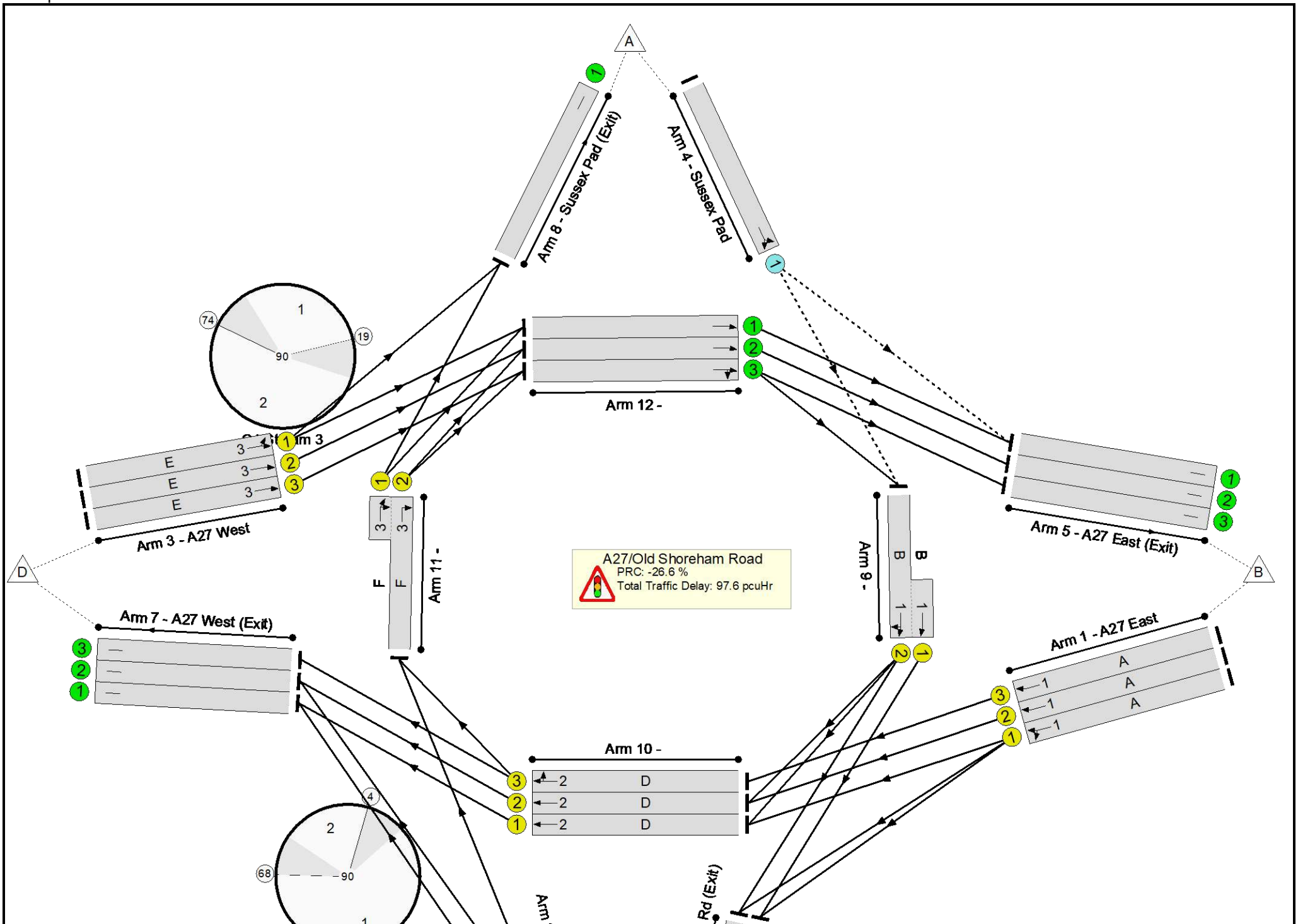
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1104	1900	1478	74.7%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	947	1900	1478	64.1%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	947	1900	1478	64.1%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	932	1900	1013	92.0%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	933	1900	1013	92.1%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	932	1900	1013	92.0%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	326	45.1%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1070	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	252	1900	1541	16.4%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	238	1900	1541	15.4%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1125	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	947	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	874	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+143	70.7 : 70.7%
10/1	Ahead	U	2	N/A	D		1	56	-	845	1900	1203	70.2%
10/2	Ahead	U	2	N/A	D		1	56	-	947	1900	1203	78.7%
10/3	Ahead Right	U	2	N/A	D		1	56	-	947	1900	1203	78.7%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	421+229	71.6 : 75.5%
12/1	Ahead	U	N/A	N/A	-		-	-	-	985	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**38.4**	**59.2**	**0.0**	**97.6**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**38.4**	**59.2**	**0.0**	**97.6**	**-**	**-**	**-**	**-**
1/1	1104	1104	-	-	-	1.6	1.5	-	3.1	10.1	14.4	1.5	15.9
1/2	947	947	-	-	-	1.2	0.9	-	2.1	7.8	10.3	0.9	11.1
1/3	947	947	-	-	-	1.2	0.9	-	2.1	7.8	10.3	0.9	11.1
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.2	31.6	-	38.8	305.5	13.5	31.6	45.0
3/1	932	932	-	-	-	5.0	5.1	-	10.1	38.9	21.2	5.1	26.3
3/2	933	933	-	-	-	5.0	5.1	-	10.1	39.1	21.3	5.1	26.4
3/3	932	932	-	-	-	5.0	5.1	-	10.1	38.9	21.2	5.1	26.3
4/1	147	147	147	0	0	0.6	0.4	-	1.0	25.0	2.4	0.4	2.8
5/1	1057	1057	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	914	914	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	238	238	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1125	1125	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	947	947	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	874	874	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.4	52.9	3.2	1.2	4.4
10/1	845	845	-	-	-	1.8	1.2	-	3.0	12.7	7.6	1.2	8.8
10/2	947	947	-	-	-	2.1	1.8	-	3.9	14.9	7.4	1.8	9.2
10/3	947	947	-	-	-	2.1	1.8	-	3.9	14.9	7.4	1.8	9.2
11/2+11/1	474	474	-	-	-	0.8	1.3	-	2.1	16.1	2.3	1.3	3.6
12/1	972	972	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

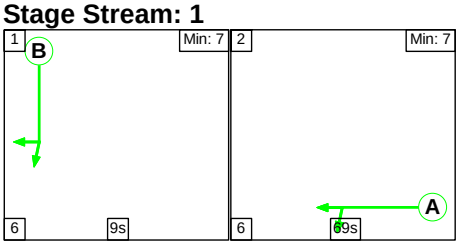
C1	Stream: 1 PRC for Signalled Lanes (%):	20.5	Total Delay for Signalled Lanes (pcuHr):	10.60	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	53.28	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	-2.3	Total Delay for Signalled Lanes (pcuHr):	32.40	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	450.4	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s): 90
	PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	97.63	

Full Input Data And Results

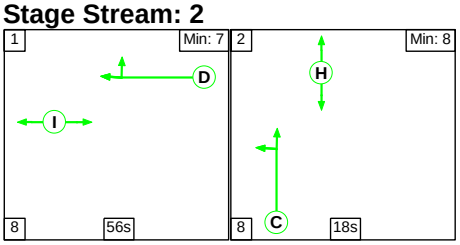
Scenario 8: '2033 PM Total - Scenario 2' (FG18: '2033 PM Total - Scenario 2', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

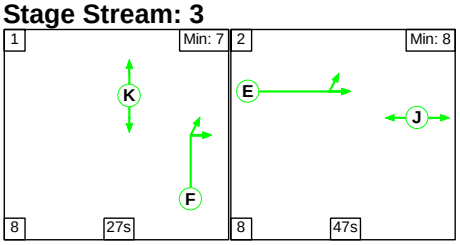
Stage Stream: 1



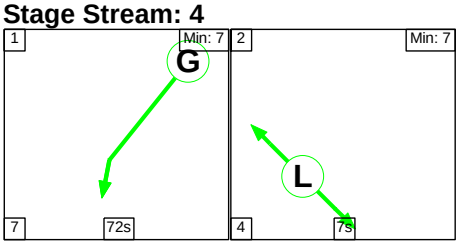
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	4	68

Stage Stream: 3

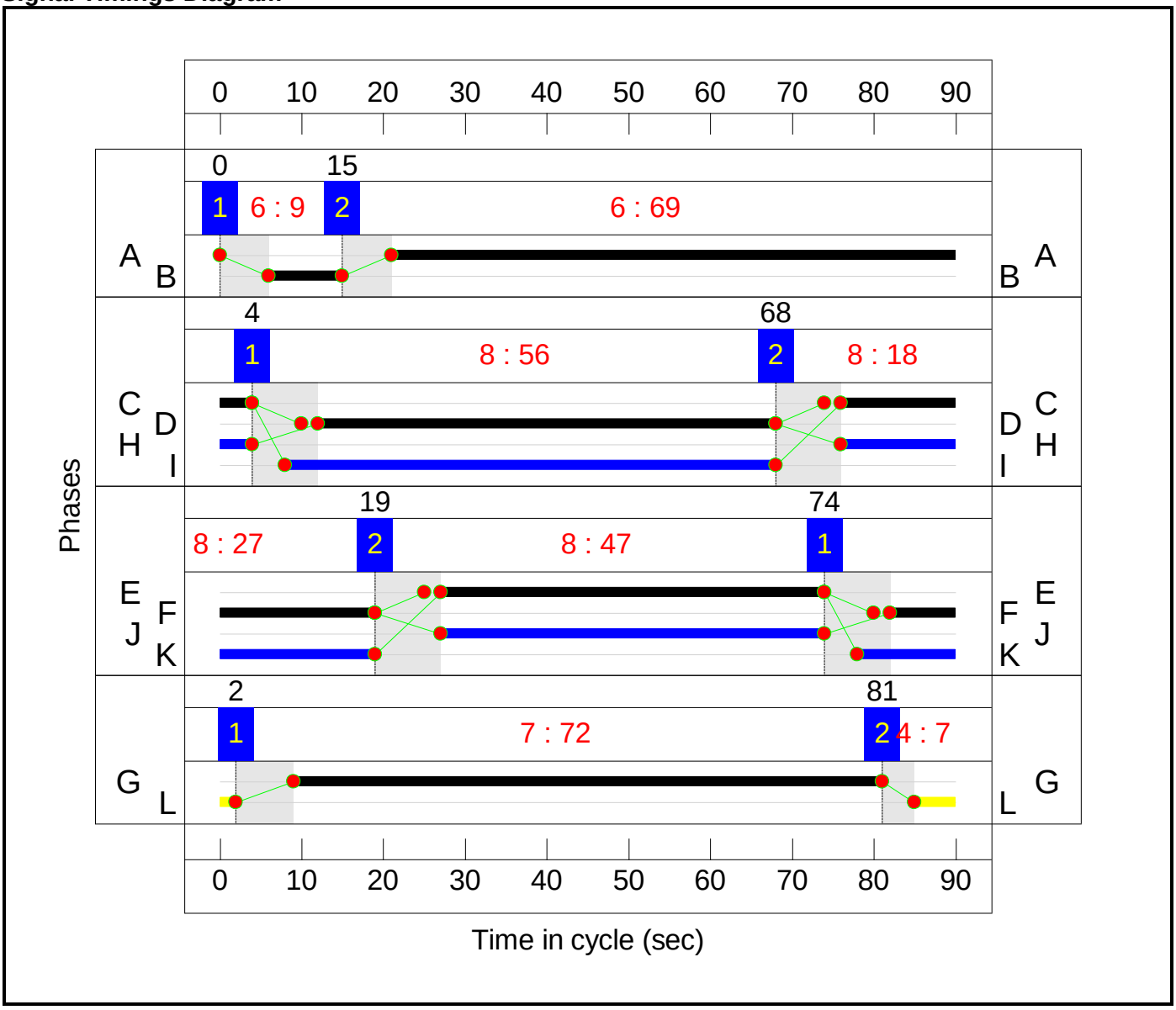
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

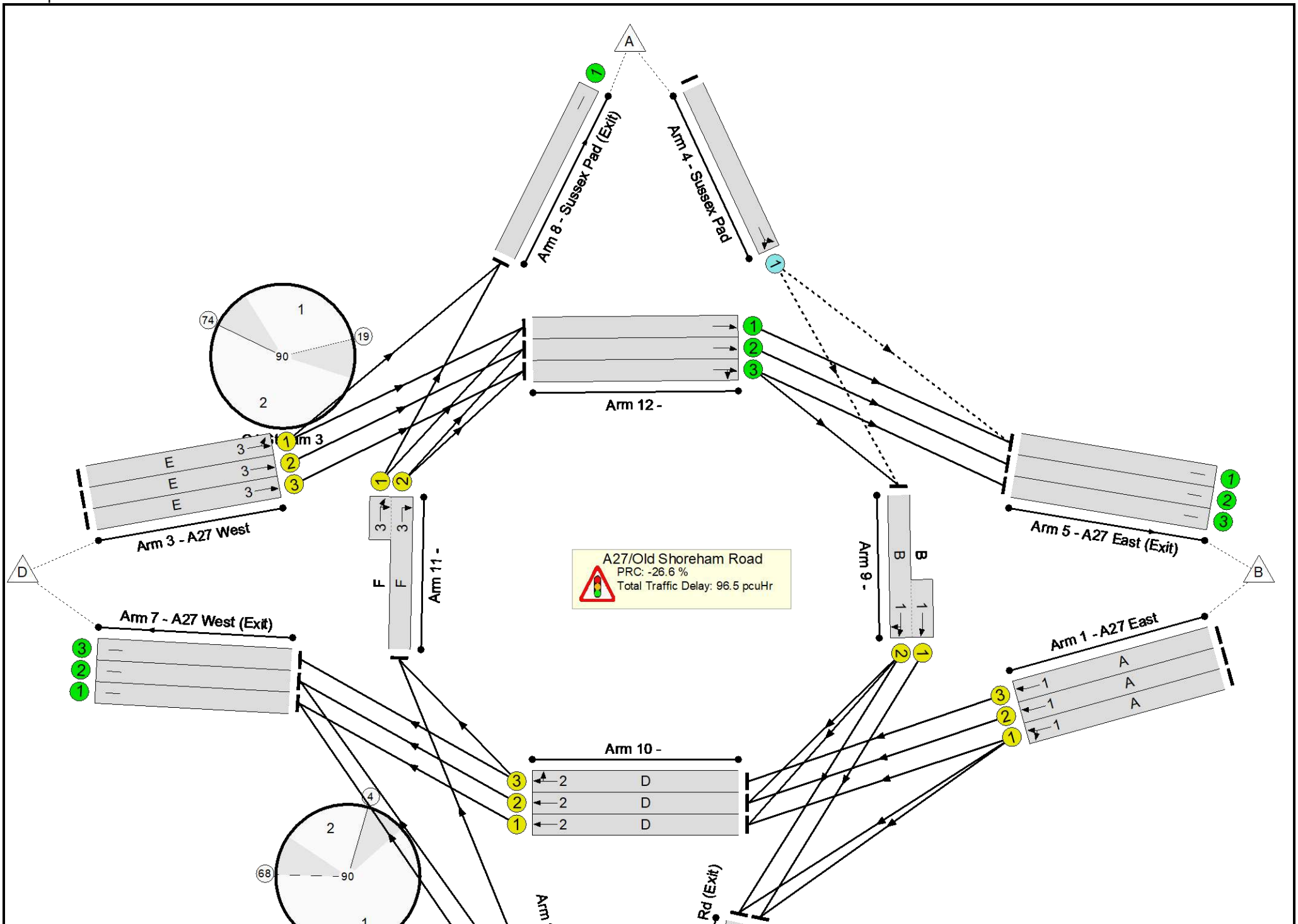
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1107	1900	1478	74.9%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	949	1900	1478	64.2%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	949	1900	1478	64.2%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	925	1900	1013	91.3%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	925	1900	1013	91.3%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	926	1900	1013	91.4%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	327	44.9%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1042	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1107	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	252	1900	1541	16.4%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	238	1900	1541	15.4%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1128	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	949	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	876	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+143	70.7 : 70.7%
10/1	Ahead	U	2	N/A	D		1	56	-	848	1900	1203	70.5%
10/2	Ahead	U	2	N/A	D		1	56	-	949	1900	1203	78.9%
10/3	Ahead Right	U	2	N/A	D		1	56	-	949	1900	1203	78.9%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	439+200	72.8 : 77.2%
12/1	Ahead	U	N/A	N/A	-		-	-	-	957	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1107	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**38.3**	**58.3**	**0.0**	**96.5**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**38.3**	**58.3**	**0.0**	**96.5**	**-**	**-**	**-**	**-**
1/1	1107	1107	-	-	-	1.6	1.5	-	3.1	10.1	14.5	1.5	15.9
1/2	949	949	-	-	-	1.2	0.9	-	2.1	7.8	10.3	0.9	11.2
1/3	949	949	-	-	-	1.2	0.9	-	2.1	7.8	10.3	0.9	11.2
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.2	31.6	-	38.8	305.5	13.5	31.6	45.0
3/1	925	925	-	-	-	4.9	4.7	-	9.6	37.5	20.8	4.7	25.5
3/2	925	925	-	-	-	4.9	4.7	-	9.6	37.5	20.8	4.7	25.5
3/3	926	926	-	-	-	4.9	4.8	-	9.7	37.7	20.8	4.8	25.6
4/1	147	147	147	0	0	0.6	0.4	-	1.0	24.9	2.4	0.4	2.8
5/1	1031	1031	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1085	1085	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	238	238	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1128	1128	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	949	949	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	876	876	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.4	53.0	3.2	1.2	4.4
10/1	848	848	-	-	-	1.8	1.2	-	3.0	12.8	7.7	1.2	8.8
10/2	949	949	-	-	-	2.1	1.8	-	3.9	14.9	7.4	1.8	9.3
10/3	949	949	-	-	-	2.1	1.8	-	3.9	14.9	7.4	1.8	9.3
11/2+11/1	474	474	-	-	-	0.8	1.4	-	2.2	16.7	2.2	1.4	3.6
12/1	946	946	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1085	1085	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1086	1086	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

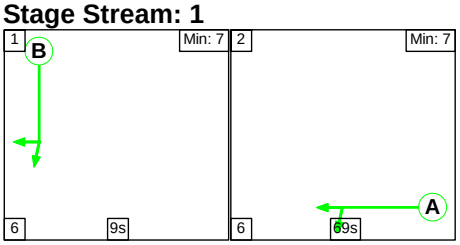
C1	Stream: 1	PRC for Signalled Lanes (%):	20.1	Total Delay for Signalled Lanes (pcuHr):	10.65	Cycle Time (s):	90	
C1	Stream: 2	PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	53.35	Cycle Time (s):	90	
C1	Stream: 3	PRC for Signalled Lanes (%):	-1.5	Total Delay for Signalled Lanes (pcuHr):	31.17	Cycle Time (s):	90	
C1	Stream: 4	PRC for Signalled Lanes (%):	450.4	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s):	90	
		PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	96.52			

Full Input Data And Results

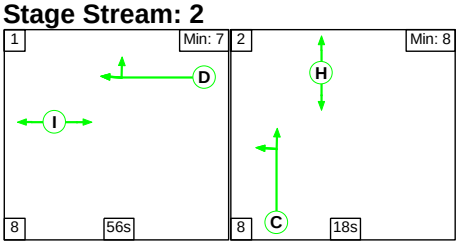
Scenario 9: '2033 PM Total - Scenario 3' (FG19: '2033 PM Total - Scenario 3', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

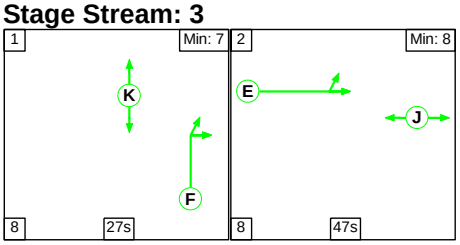
Stage Stream: 1



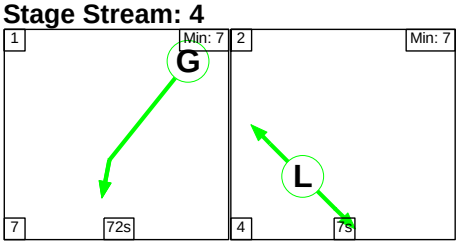
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	4	68

Stage Stream: 3

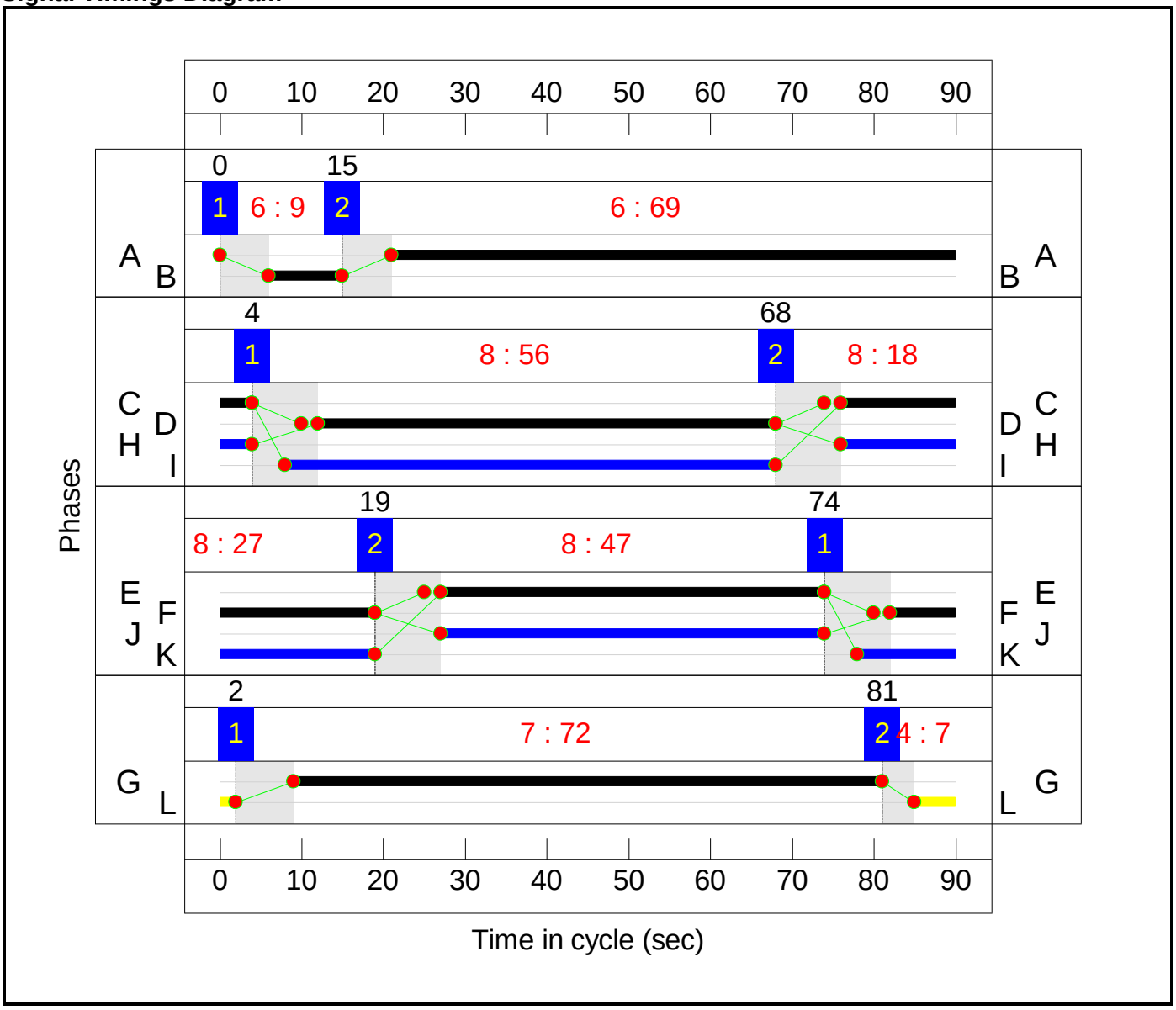
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

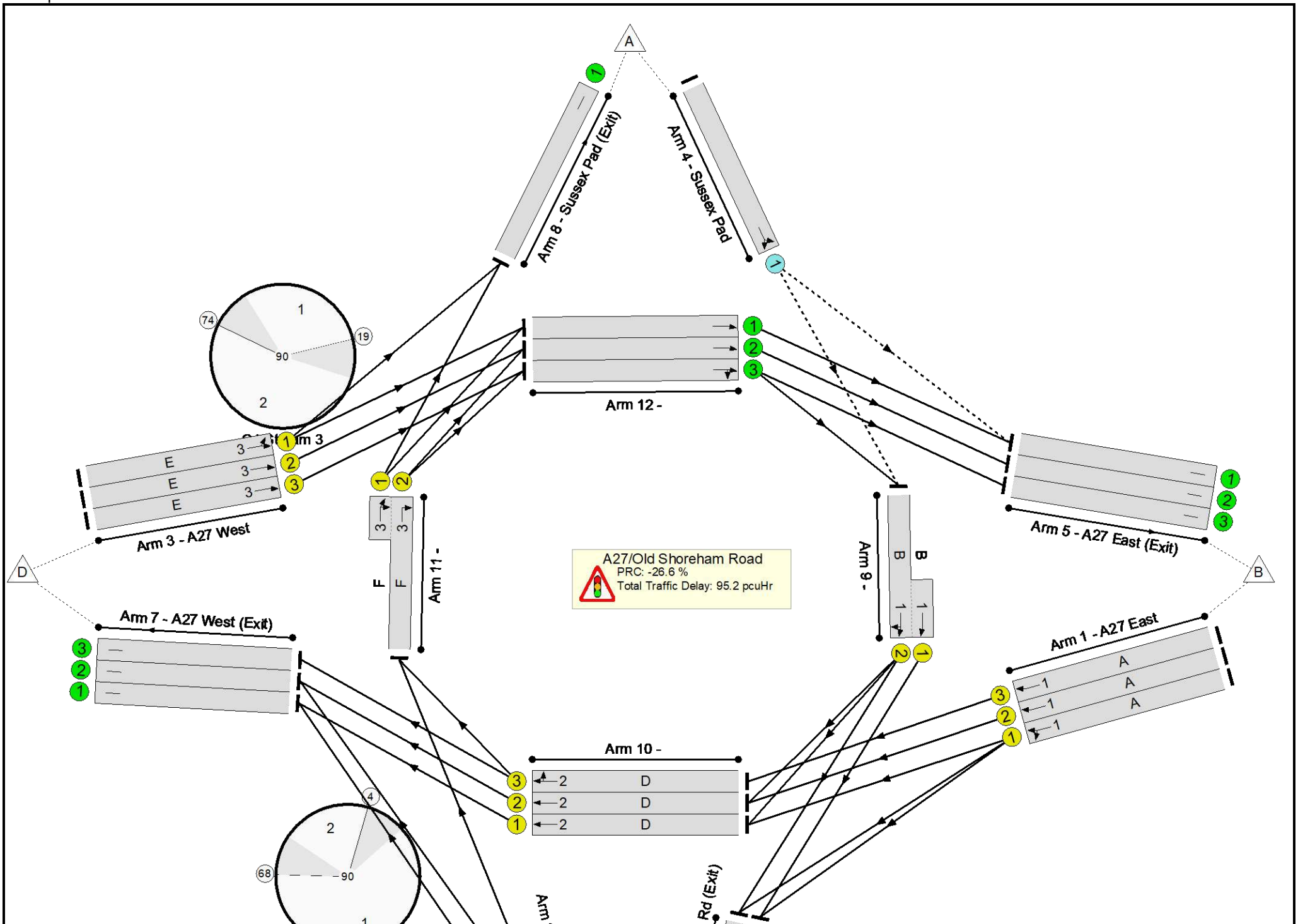
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1086	1900	1478	73.5%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	930	1900	1478	62.9%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	930	1900	1478	62.9%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	923	1900	1013	91.1%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	923	1900	1013	91.1%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	923	1900	1013	91.1%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	328	44.9%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1039	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	937	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	252	1900	1541	16.4%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	238	1900	1541	15.4%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1107	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	930	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+143	70.7 : 70.7%
10/1	Ahead	U	2	N/A	D		1	56	-	827	1900	1203	68.7%
10/2	Ahead	U	2	N/A	D		1	56	-	930	1900	1203	77.3%
10/3	Ahead Right	U	2	N/A	D		1	56	-	930	1900	1203	77.3%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	440+199	72.8 : 77.3%
12/1	Ahead	U	N/A	N/A	-		-	-	-	954	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1106	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**37.9**	**57.3**	**0.0**	**95.2**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**37.9**	**57.3**	**0.0**	**95.2**	**-**	**-**	**-**	**-**
1/1	1086	1086	-	-	-	1.6	1.4	-	2.9	9.8	13.9	1.4	15.3
1/2	930	930	-	-	-	1.1	0.8	-	2.0	7.6	10.1	0.8	10.9
1/3	930	930	-	-	-	1.1	0.8	-	2.0	7.6	10.1	0.8	10.9
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.2	31.6	-	38.8	305.5	13.5	31.6	45.0
3/1	923	923	-	-	-	4.9	4.6	-	9.5	37.1	20.8	4.6	25.4
3/2	923	923	-	-	-	4.9	4.6	-	9.5	37.1	20.8	4.6	25.4
3/3	923	923	-	-	-	4.9	4.6	-	9.5	37.1	20.8	4.6	25.4
4/1	147	147	147	0	0	0.6	0.4	-	1.0	24.8	2.4	0.4	2.8
5/1	1028	1028	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	238	238	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1107	1107	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	930	930	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.4	53.1	3.2	1.2	4.4
10/1	827	827	-	-	-	1.8	1.1	-	2.9	12.4	7.5	1.1	8.6
10/2	930	930	-	-	-	2.0	1.7	-	3.7	14.4	7.1	1.7	8.8
10/3	930	930	-	-	-	2.0	1.7	-	3.7	14.4	7.1	1.7	8.8
11/2+11/1	474	474	-	-	-	0.8	1.4	-	2.2	16.7	2.2	1.4	3.6
12/1	943	943	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1084	1084	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

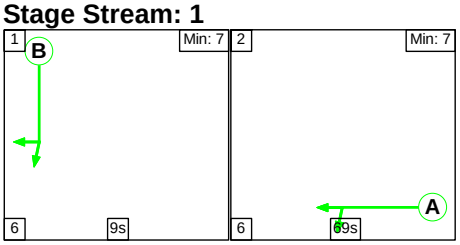
C1	Stream: 1	PRC for Signalled Lanes (%):	22.5	Total Delay for Signalled Lanes (pcuHr):	10.29	Cycle Time (s):	90
C1	Stream: 2	PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	52.77	Cycle Time (s):	90
C1	Stream: 3	PRC for Signalled Lanes (%):	-1.2	Total Delay for Signalled Lanes (pcuHr):	30.77	Cycle Time (s):	90
C1	Stream: 4	PRC for Signalled Lanes (%):	450.4	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s):	90
		PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	95.17		

Full Input Data And Results

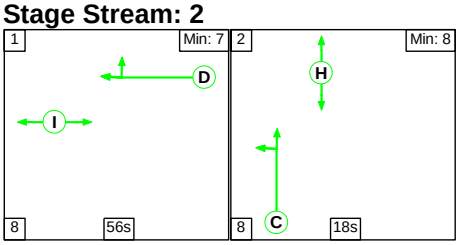
Scenario 10: '2033 PM Total - Scenario 4' (FG20: '2033 PM Total - Scenario 4', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

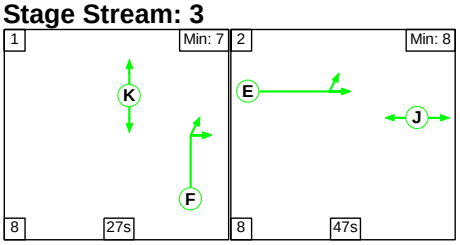
Stage Stream: 1



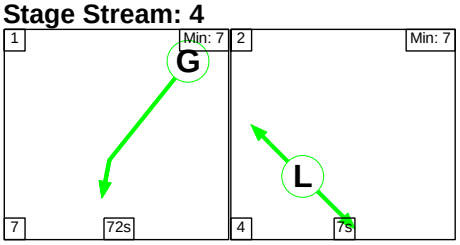
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	9	69
Change Point	0	15

Stage Stream: 2

Stage	1	2
Duration	56	18
Change Point	4	68

Stage Stream: 3

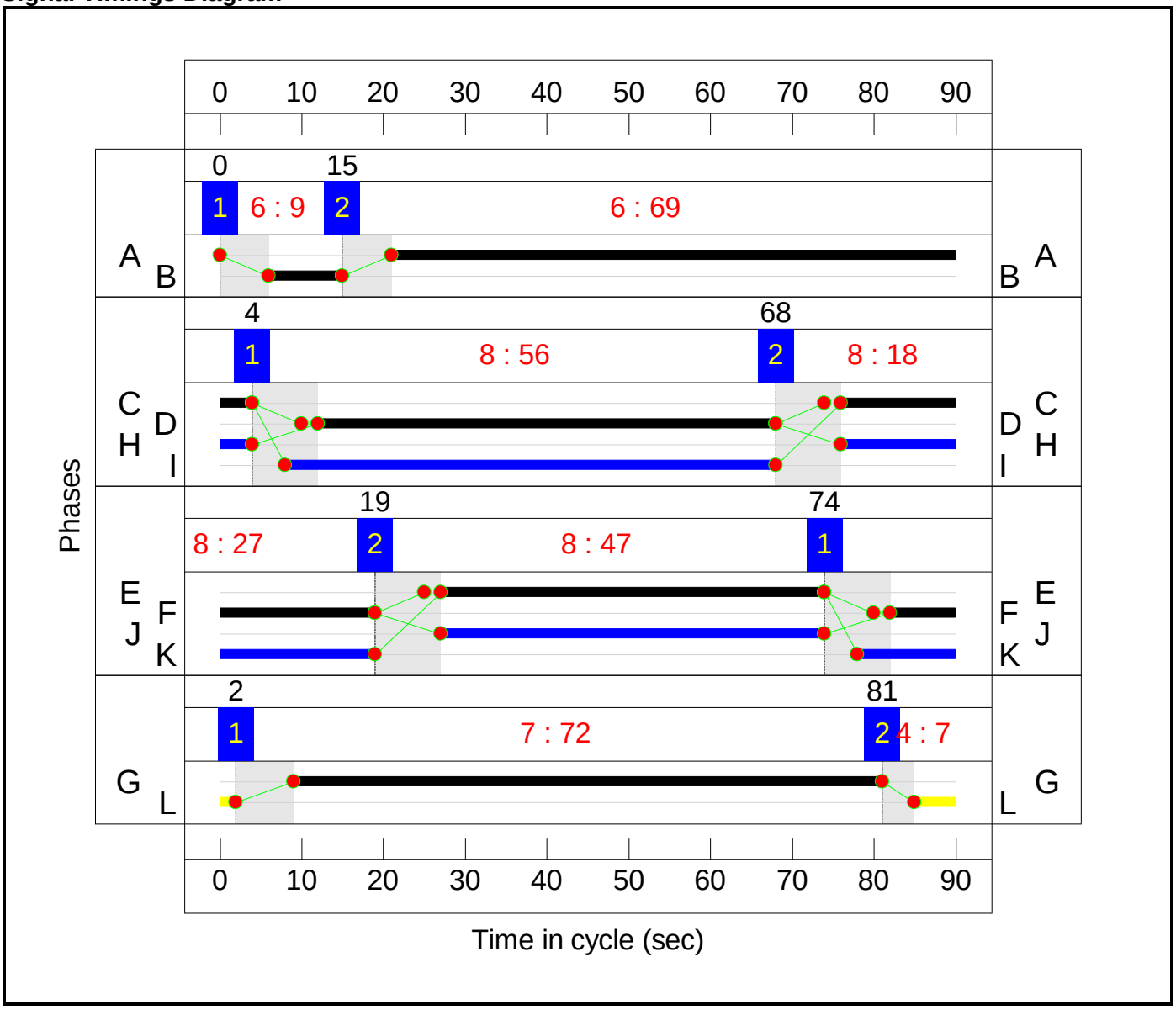
Stage	1	2
Duration	27	47
Change Point	74	19

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	72	7
Change Point	2	81

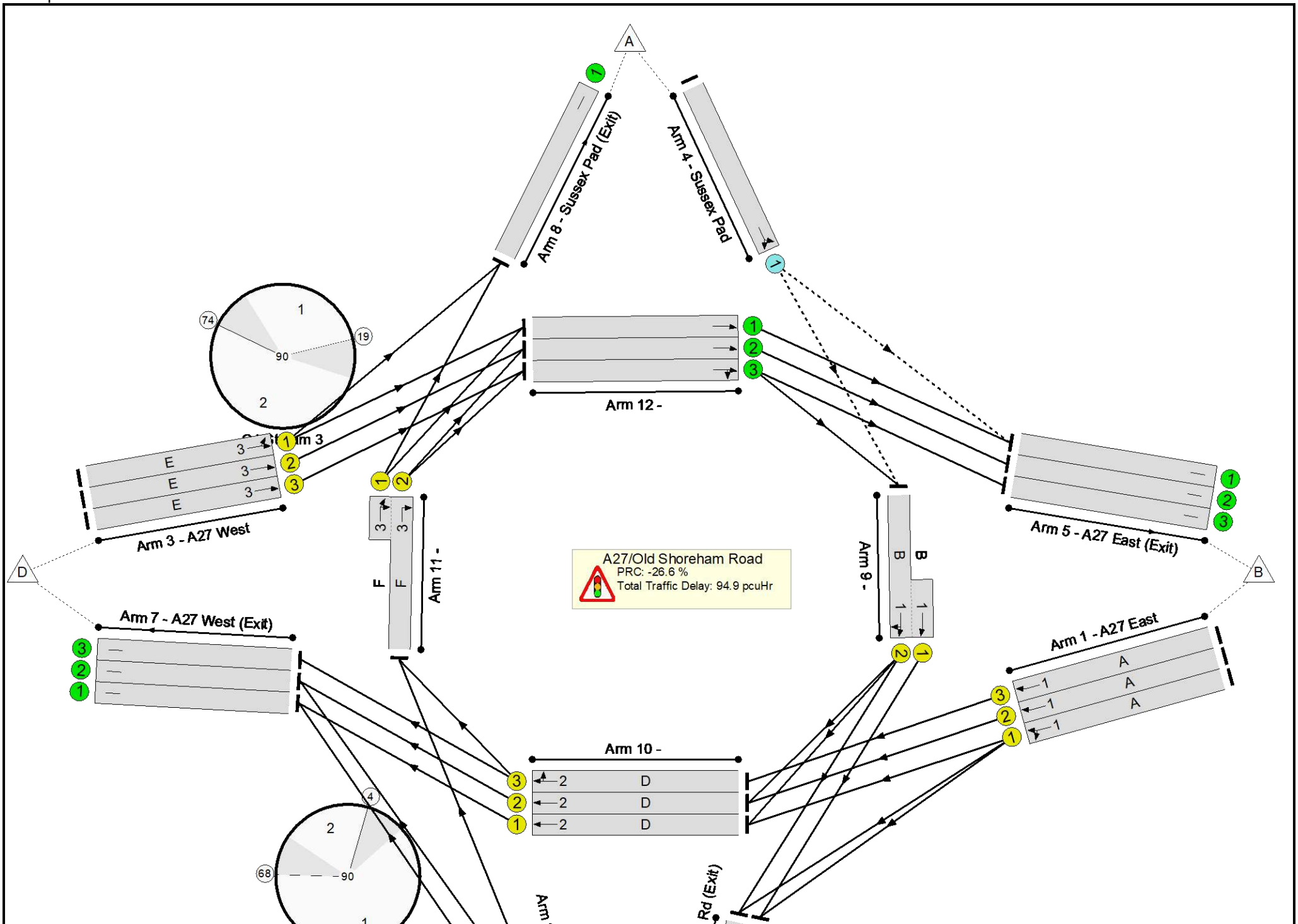
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
A27/Old Shoreham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**113.9%**
1/1	A27 East Left Ahead	U	1	N/A	A		1	69	-	1092	1900	1478	73.9%
1/2	A27 East Ahead	U	1	N/A	A		1	69	-	933	1900	1478	63.1%
1/3	A27 East Ahead	U	1	N/A	A		1	69	-	934	1900	1478	63.2%
2/1	Old Shoreham Rd (New Monks Farm Access) Left	U	2	N/A	C		1	18	-	280	1900	401	69.8%
2/2+2/3	Old Shoreham Rd (New Monks Farm Access) Left Ahead	U	2	N/A	C		1	18	-	457	1900:1900	0+401	0.0 : 113.9%
3/1	A27 West Left Ahead	U	3	N/A	E		1	47	-	920	1900	1013	90.8%
3/2	A27 West Ahead	U	3	N/A	E		1	47	-	920	1900	1013	90.8%
3/3	A27 West Ahead	U	3	N/A	E		1	47	-	920	1900	1013	90.8%
4/1	Sussex Pad Left Ahead	O	N/A	N/A	-		-	-	-	147	1900	328	44.8%
5/1	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1038	Inf	Inf	0.0%
5/2	A27 East (Exit)	U	N/A	N/A	-		-	-	-	1101	Inf	Inf	0.0%
5/3	A27 East (Exit)	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
6/1	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	252	1900	1541	16.4%
6/2	Old Shoreham Rd (Exit) Ahead	U	4	N/A	G		1	72	-	238	1900	1541	15.4%
7/1	A27 West (Exit)	U	N/A	N/A	-		-	-	-	1113	Inf	Inf	0.0%
7/2	A27 West (Exit)	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
7/3	A27 West (Exit)	U	N/A	N/A	-		-	-	-	861	Inf	Inf	0.0%
8/1	Sussex Pad (Exit)	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%

Full Input Data And Results

9/2+9/1	Ahead Right	U	1	N/A	B		1	9	-	231	1900:1900	184+143	70.7 : 70.7%
10/1	Ahead	U	2	N/A	D		1	56	-	833	1900	1203	69.2%
10/2	Ahead	U	2	N/A	D		1	56	-	933	1900	1203	77.5%
10/3	Ahead Right	U	2	N/A	D		1	56	-	934	1900	1203	77.6%
11/2+11/1	Ahead Right	U	3	N/A	F		1	27	-	530	1900:1900	438+202	72.7 : 77.2%
12/1	Ahead	U	N/A	N/A	-		-	-	-	953	Inf	Inf	0.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	1101	Inf	Inf	0.0%
12/3	Ahead Right	U	N/A	N/A	-		-	-	-	1102	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**0**	**37.8**	**57.0**	**0.0**	**94.9**	**-**	**-**	**-**	**-**
A27/Old Shoreham Road	**-**	**-**	**147**	**0**	**0**	**37.8**	**57.0**	**0.0**	**94.9**	**-**	**-**	**-**	**-**
1/1	1092	1092	-	-	-	1.6	1.4	-	3.0	9.9	14.3	1.4	15.7
1/2	933	933	-	-	-	1.1	0.9	-	2.0	7.7	10.1	0.9	11.0
1/3	934	934	-	-	-	1.1	0.9	-	2.0	7.7	10.1	0.9	11.0
2/1	280	280	-	-	-	2.6	1.1	-	3.7	47.4	6.5	1.1	7.6
2/2+2/3	457	401	-	-	-	7.2	31.6	-	38.8	305.5	13.5	31.6	45.0
3/1	920	920	-	-	-	4.9	4.5	-	9.4	36.6	20.7	4.5	25.2
3/2	920	920	-	-	-	4.9	4.5	-	9.4	36.6	20.7	4.5	25.2
3/3	920	920	-	-	-	4.9	4.5	-	9.4	36.6	20.7	4.5	25.2
4/1	147	147	147	0	0	0.6	0.4	-	1.0	24.8	2.4	0.4	2.8
5/1	1027	1027	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1079	1079	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/3	911	911	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.1	0.1	-	0.2	2.4	0.6	0.1	0.7
6/2	238	238	-	-	-	0.1	0.1	-	0.2	2.6	0.7	0.1	0.8
7/1	1113	1113	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	933	933	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	861	861	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	231	231	-	-	-	2.2	1.2	-	3.4	53.1	3.2	1.2	4.4
10/1	833	833	-	-	-	1.8	1.1	-	2.9	12.5	7.5	1.1	8.7
10/2	933	933	-	-	-	2.0	1.7	-	3.8	14.5	7.1	1.7	8.8
10/3	934	934	-	-	-	2.1	1.7	-	3.8	14.5	7.1	1.7	8.8
11/2+11/1	474	474	-	-	-	0.8	1.4	-	2.2	16.7	2.2	1.4	3.6
12/1	942	942	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/2	1079	1079	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	1080	1080	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	21.8	Total Delay for Signalled Lanes (pcuHr):	10.37	Cycle Time (s):	90
C1	Stream: 2	PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	52.89	Cycle Time (s):	90
C1	Stream: 3	PRC for Signalled Lanes (%):	-0.9	Total Delay for Signalled Lanes (pcuHr):	30.25	Cycle Time (s):	90
C1	Stream: 4	PRC for Signalled Lanes (%):	450.4	Total Delay for Signalled Lanes (pcuHr):	0.34	Cycle Time (s):	90
		PRC Over All Lanes (%):	-26.6	Total Delay Over All Lanes(pcuHr):	94.86		

APPENDIX 23.0

JUNCTION CAPACITY ASSESSMENT: JUNCTION 12 – LANCING MANOR ROUNDABOUT

23.1 ARCADY Outputs: 2033 Base and Proposed Development Scenarios (Existing Junction Arrangement)
23.2 Proposed Junction Improvements
23.3 ARCADY Outputs: Proposed Development Scenarios (With Proposed Junction Improvements)
23.4 DMRB CD 116 Compliance Checks

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 12 (Lancing Manor Rdbt) Committed.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 12 (Lancing Manor Rdbt)
Report generation date: 21/01/2022 12:06:07

»2033 Base, AM
»2033 Base, PM
»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 23.1
ARCADY OUTPUTS: 2033 BASE AND PROPOSED DEVELOPMENT SCENARIOS (EXISTING JUNCTION ARRANGEMENT)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2033 Base														
1 - A27 East	342.4	511.99	1.25	F	858.10	F	-34 % [2 - A2025 Grinstead Ln]	446.3	648.90	1.30	F	672.94	F	-28 % [3 - A27 West]
2 - A2025 Grinstead Ln	542.2	2131.34	1.72	F				6.8	34.47	0.89	D			
3 - A27 West	361.2	633.49	1.29	F				508.2	960.64	1.45	F			
4 - Manor Road	22.9	176.17	1.06	F				1.1	16.36	0.53	C			
Scenario 1 Total														
1 - A27 East	411.8	603.41	1.29	F	936.98	F	-35 % [2 - A2025 Grinstead Ln]	544.2	782.80	1.35	F	763.73	F	-29 % [3 - A27 West]
2 - A2025 Grinstead Ln	564.8	2197.30	1.73	F				7.5	36.94	0.90	E			
3 - A27 West	414.1	721.12	1.32	F				549.4	1035.93	1.48	F			
4 - Manor Road	24.8	188.37	1.07	F				1.2	17.06	0.55	C			
Scenario 2 Total														
1 - A27 East	398.0	585.20	1.28	F	925.69	F	-35 % [2 - A2025 Grinstead Ln]	539.9	775.84	1.35	F	752.20	F	-29 % [3 - A27 West]
2 - A2025 Grinstead Ln	560.9	2183.78	1.73	F				7.2	35.70	0.89	E			
3 - A27 West	411.5	716.45	1.32	F				537.4	1013.85	1.47	F			
4 - Manor Road	24.9	189.20	1.07	F				1.2	16.93	0.54	C			
Scenario 3 Total														
1 - A27 East	374.6	554.47	1.27	F	892.20	F	-35 % [2 - A2025 Grinstead Ln]	501.2	721.39	1.33	F	725.91	F	-29 % [3 - A27 West]
2 - A2025 Grinstead Ln	552.0	2159.48	1.73	F				7.5	37.26	0.90	E			
3 - A27 West	382.3	668.55	1.30	F				535.7	1012.37	1.47	F			
4 - Manor Road	23.6	180.27	1.06	F				1.2	16.74	0.54	C			
Scenario 4 Total														
1 - A27 East	367.0	544.24	1.26	F	913.68	F	-35 % [2 - A2025 Grinstead Ln]	506.7	728.87	1.33	F	718.23	F	-29 % [3 - A27 West]
2 - A2025 Grinstead Ln	563.3	2200.03	1.74	F				6.6	33.18	0.88	D			
3 - A27 West	410.6	714.21	1.32	F				520.4	981.26	1.46	F			
4 - Manor Road	25.1	190.57	1.07	F				1.1	16.64	0.54	C			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2033 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	858.10	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-34	2 - A2025 Grinstead Ln

Arms

Arms

Arm	Name	Description
1	A27 East	
2	A2025 Grinstead Ln	
3	A27 West	
4	Manor Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 East	7.20	9.80	25.0	15.1	54.0	40.0	
2 - A2025 Grinstead Ln	5.80	11.50	10.0	12.6	54.0	48.0	
3 - A27 West	5.60	11.50	17.0	30.5	54.0	44.0	
4 - Manor Road	4.10	7.40	40.0	30.6	54.0	22.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 East	0.746	2632
2 - A2025 Grinstead Ln	0.647	2153
3 - A27 West	0.721	2463
4 - Manor Road	0.680	2124

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2694	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1381	100.000
3 - A27 West		ONE HOUR	✓	2329	100.000
4 - Manor Road		ONE HOUR	✓	421	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	648	1936	110
	2 - A2025 Grinstead Ln	621	0	694	66
	3 - A27 West	2190	138	0	1
	4 - Manor Road	306	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.25	511.99	342.4	F	2472	3708
2 - A2025 Grinstead Ln	1.72	2131.34	542.2	F	1267	1901
3 - A27 West	1.29	633.49	361.2	F	2137	3206
4 - Manor Road	1.06	176.17	22.9	F	386	579

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2028	507	187	2403	0.844	2008	2294	0.0	5.1	8.710	A
2 - A2025 Grinstead Ln	1040	260	1571	1073	0.969	991	624	0.0	12.1	33.883	D
3 - A27 West	1753	438	578	1957	0.896	1724	1984	0.0	7.4	14.037	B
4 - Manor Road	317	79	2169	587	0.540	312	133	0.0	1.1	12.920	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2422	605	216	2382	1.017	2321	2508	5.1	30.3	35.704	E
2 - A2025 Grinstead Ln	1241	310	1817	912	1.362	910	720	12.1	95.1	224.380	F
3 - A27 West	2094	523	551	1977	1.059	1949	2176	7.4	43.7	56.439	F
4 - Manor Road	378	95	2357	455	0.831	367	143	1.1	3.9	37.015	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2966	742	232	2370	1.251	2369	2568	30.3	179.7	164.794	F
2 - A2025 Grinstead Ln	1521	380	1861	883	1.722	883	740	95.1	254.4	719.122	F
3 - A27 West	2564	641	540	1984	1.292	1984	2204	43.7	188.9	216.336	F
4 - Manor Road	464	116	2380	439	1.055	420	144	3.9	14.8	101.663	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2966	742	235	2368	1.253	2368	2576	179.7	329.2	389.982	F
2 - A2025 Grinstead Ln	1521	380	1862	883	1.723	882	741	254.4	413.9	1368.578	F
3 - A27 West	2564	641	540	1985	1.292	1985	2205	188.9	333.8	477.583	F
4 - Manor Road	464	116	2380	439	1.056	431	144	14.8	22.9	176.172	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2422	605	233	2370	1.022	2369	2570	329.2	342.4	511.991	F
2 - A2025 Grinstead Ln	1241	310	1861	883	1.406	883	741	413.9	503.6	1873.191	F
3 - A27 West	2094	523	540	1985	1.055	1984	2204	333.8	361.2	633.490	F
4 - Manor Road	378	95	2380	439	0.862	422	144	22.9	12.0	157.816	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2028	507	214	2384	0.851	2377	2515	342.4	255.3	453.007	F
2 - A2025 Grinstead Ln	1040	260	1857	885	1.174	885	733	503.6	542.2	2131.343	F
3 - A27 West	1753	438	541	1984	0.884	1978	2202	361.2	304.9	606.284	F
4 - Manor Road	317	79	2376	442	0.717	353	144	12.0	2.9	50.612	F

2033 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	672.94	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2810	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	686	100.000
3 - A27 West		ONE HOUR	✓	2258	100.000
4 - Manor Road		ONE HOUR	✓	228	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	634	1931	245
	2 - A2025 Grinstead Ln	577	0	37	72
	3 - A27 West	2080	162	0	16
	4 - Manor Road	129	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.30	648.90	446.3	F	2579	3868
2 - A2025 Grinstead Ln	0.89	34.47	6.8	D	629	944
3 - A27 West	1.45	960.64	508.2	F	2072	3108
4 - Manor Road	0.53	16.36	1.1	C	209	314

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2116	529	194	2401	0.881	2089	2066	0.0	6.7	10.746	B
2 - A2025 Grinstead Ln	516	129	1658	1006	0.513	512	625	0.0	1.0	7.233	A
3 - A27 West	1700	425	668	1895	0.897	1670	1503	0.0	7.4	14.491	B
4 - Manor Road	172	43	2089	643	0.267	170	248	0.0	0.4	7.596	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2526	632	217	2384	1.060	2353	2285	6.7	50.0	51.624	F
2 - A2025 Grinstead Ln	617	154	1870	869	0.710	612	700	1.0	2.3	13.728	B
3 - A27 West	2030	507	785	1812	1.121	1797	1697	7.4	65.6	82.366	F
4 - Manor Road	205	51	2299	496	0.413	204	283	0.4	0.7	12.253	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3094	773	232	2373	1.304	2373	2350	50.0	230.3	217.118	F
2 - A2025 Grinstead Ln	755	189	1896	852	0.887	740	708	2.3	6.1	28.864	D
3 - A27 West	2486	622	908	1723	1.443	1722	1728	65.6	256.5	341.899	F
4 - Manor Road	251	63	2333	472	0.531	249	298	0.7	1.1	16.023	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3094	773	232	2373	1.304	2373	2354	230.3	410.5	488.185	F
2 - A2025 Grinstead Ln	755	189	1897	851	0.887	753	708	6.1	6.8	34.466	D
3 - A27 West	2486	622	920	1714	1.450	1714	1730	256.5	449.5	729.265	F
4 - Manor Road	251	63	2335	471	0.533	251	299	1.1	1.1	16.356	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2526	632	218	2383	1.060	2383	2303	410.5	446.3	648.901	F
2 - A2025 Grinstead Ln	617	154	1894	853	0.723	633	707	6.8	2.8	17.376	C
3 - A27 West	2030	507	807	1795	1.131	1795	1720	449.5	508.2	960.642	F
4 - Manor Road	205	51	2315	485	0.423	206	288	1.1	0.7	12.989	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2116	529	209	2390	0.885	2385	2256	446.3	379.0	623.063	F
2 - A2025 Grinstead Ln	516	129	1888	857	0.602	521	706	2.8	1.6	10.862	B
3 - A27 West	1700	425	702	1871	0.909	1867	1707	508.2	466.3	939.439	F
4 - Manor Road	172	43	2293	501	0.343	173	277	0.7	0.5	11.005	B

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	936.98	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-35	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2773	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1404	100.000
3 - A27 West		ONE HOUR	✓	2375	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	685	1972	116
	2 - A2025 Grinstead Ln	644	0	694	66
	3 - A27 West	2236	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.29	603.41	411.8	F	2545	3817
2 - A2025 Grinstead Ln	1.73	2197.30	564.8	F	1288	1932
3 - A27 West	1.32	721.12	414.1	F	2179	3269
4 - Manor Road	1.07	188.37	24.8	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2088	522	187	2406	0.868	2064	2334	0.0	6.0	9.915	A
2 - A2025 Grinstead Ln	1057	264	1600	1055	1.002	993	651	0.0	16.0	41.557	E
3 - A27 West	1788	447	592	1949	0.917	1752	2001	0.0	8.9	16.145	C
4 - Manor Road	319	80	2207	561	0.569	314	137	0.0	1.3	14.293	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2493	623	213	2386	1.045	2347	2523	6.0	42.5	45.586	E
2 - A2025 Grinstead Ln	1262	316	1821	910	1.387	909	739	16.0	104.3	249.731	F
3 - A27 West	2135	534	561	1971	1.083	1952	2169	8.9	54.7	67.659	F
4 - Manor Road	381	95	2368	449	0.849	369	145	1.3	4.3	40.111	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3053	763	229	2375	1.285	2374	2576	42.5	212.3	197.868	F
2 - A2025 Grinstead Ln	1546	386	1849	892	1.733	892	754	104.3	267.8	757.608	F
3 - A27 West	2615	654	554	1976	1.323	1975	2187	54.7	214.6	250.272	F
4 - Manor Road	467	117	2384	438	1.066	421	146	4.3	15.9	107.748	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3053	763	232	2373	1.287	2373	2583	212.3	382.3	453.815	F
2 - A2025 Grinstead Ln	1546	386	1850	892	1.734	892	755	267.8	431.4	1416.962	F
3 - A27 West	2615	654	554	1976	1.323	1976	2187	214.6	374.3	539.719	F
4 - Manor Road	467	117	2384	438	1.067	431	146	15.9	24.8	188.368	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2493	623	229	2375	1.050	2375	2576	382.3	411.8	603.406	F
2 - A2025 Grinstead Ln	1262	316	1850	892	1.416	892	754	431.4	524.0	1931.128	F
3 - A27 West	2135	534	554	1976	1.080	1976	2187	374.3	414.1	721.119	F
4 - Manor Road	381	95	2384	438	0.871	421	146	24.8	14.9	175.326	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2088	522	214	2386	0.875	2380	2533	411.8	338.6	567.706	F
2 - A2025 Grinstead Ln	1057	264	1846	894	1.182	894	748	524.0	564.8	2197.297	F
3 - A27 West	1788	447	555	1976	0.905	1971	2185	414.1	368.4	714.829	F
4 - Manor Road	319	80	2380	441	0.725	367	146	14.9	3.0	63.868	F

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	763.73	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2914	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	705	100.000
3 - A27 West		ONE HOUR	✓	2289	100.000
4 - Manor Road		ONE HOUR	✓	231	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	682	1983	249
	2 - A2025 Grinstead Ln	596	0	37	72
	3 - A27 West	2111	162	0	16
	4 - Manor Road	132	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.35	782.80	544.2	F	2674	4011
2 - A2025 Grinstead Ln	0.90	36.94	7.5	E	647	970
3 - A27 West	1.48	1035.93	549.4	F	2100	3151
4 - Manor Road	0.55	17.06	1.2	C	212	318

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2194	548	193	2404	0.912	2159	2101	0.0	8.8	13.185	B
2 - A2025 Grinstead Ln	531	133	1694	985	0.539	526	658	0.0	1.1	7.776	A
3 - A27 West	1723	431	684	1885	0.914	1689	1536	0.0	8.6	16.234	C
4 - Manor Road	174	43	2122	621	0.280	172	251	0.0	0.4	7.997	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2620	655	215	2388	1.097	2371	2301	8.8	71.0	68.275	F
2 - A2025 Grinstead Ln	634	158	1864	874	0.725	628	722	1.1	2.5	14.323	B
3 - A27 West	2058	514	799	1803	1.142	1792	1694	8.6	75.1	93.226	F
4 - Manor Road	208	52	2310	489	0.424	206	280	0.4	0.7	12.664	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3208	802	229	2378	1.349	2378	2366	71.0	278.7	268.613	F
2 - A2025 Grinstead Ln	776	194	1880	864	0.898	760	727	2.5	6.6	30.382	D
3 - A27 West	2520	630	924	1713	1.472	1712	1716	75.1	277.1	375.476	F
4 - Manor Road	254	64	2343	467	0.545	253	294	0.7	1.2	16.677	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3208	802	230	2378	1.349	2378	2370	278.7	486.3	580.727	F
2 - A2025 Grinstead Ln	776	194	1881	864	0.899	773	727	6.6	7.5	36.943	E
3 - A27 West	2520	630	937	1703	1.479	1703	1717	277.1	481.3	786.633	F
4 - Manor Road	254	64	2345	465	0.547	254	295	1.2	1.2	17.059	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2620	655	216	2388	1.097	2388	2317	486.3	544.2	778.182	F
2 - A2025 Grinstead Ln	634	158	1878	866	0.732	652	726	7.5	2.9	18.088	C
3 - A27 West	2058	514	823	1785	1.153	1785	1707	481.3	549.4	1035.934	F
4 - Manor Road	208	52	2324	480	0.433	209	284	1.2	0.8	13.393	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2194	548	207	2395	0.916	2390	2269	544.2	495.1	782.796	F
2 - A2025 Grinstead Ln	531	133	1872	869	0.610	536	725	2.9	1.6	10.956	B
3 - A27 West	1723	431	713	1865	0.924	1861	1695	549.4	514.9	1029.441	F
4 - Manor Road	174	43	2301	496	0.351	175	273	0.8	0.6	11.254	B

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	925.69	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-35	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2758	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1401	100.000
3 - A27 West		ONE HOUR	✓	2374	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	680	1964	114
	2 - A2025 Grinstead Ln	641	0	694	66
	3 - A27 West	2235	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.28	585.20	398.0	F	2531	3796
2 - A2025 Grinstead Ln	1.73	2183.78	560.9	F	1286	1928
3 - A27 West	1.32	716.45	411.5	F	2178	3268
4 - Manor Road	1.07	189.20	24.9	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2076	519	187	2405	0.863	2053	2333	0.0	5.8	9.663	A
2 - A2025 Grinstead Ln	1055	264	1593	1060	0.995	994	647	0.0	15.2	39.756	E
3 - A27 West	1787	447	589	1950	0.916	1752	1997	0.0	8.8	16.029	C
4 - Manor Road	319	80	2206	562	0.568	314	135	0.0	1.3	14.254	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2479	620	214	2386	1.039	2343	2523	5.8	39.9	43.540	E
2 - A2025 Grinstead Ln	1259	315	1819	911	1.382	910	737	15.2	102.6	244.679	F
3 - A27 West	2134	534	559	1972	1.082	1953	2169	8.8	54.2	67.090	F
4 - Manor Road	381	95	2368	449	0.849	369	144	1.3	4.3	40.179	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3037	759	229	2375	1.279	2374	2576	39.9	205.7	191.100	F
2 - A2025 Grinstead Ln	1543	386	1850	891	1.731	891	753	102.6	265.5	749.978	F
3 - A27 West	2614	653	552	1978	1.322	1977	2189	54.2	213.4	248.503	F
4 - Manor Road	467	117	2384	438	1.067	420	145	4.3	15.9	108.094	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3037	759	232	2373	1.280	2372	2583	205.7	371.7	440.994	F
2 - A2025 Grinstead Ln	1543	386	1851	891	1.731	891	754	265.5	428.4	1407.208	F
3 - A27 West	2614	653	552	1978	1.322	1978	2190	213.4	372.4	536.430	F
4 - Manor Road	467	117	2385	437	1.068	431	145	15.9	24.9	189.200	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2479	620	229	2375	1.044	2374	2576	371.7	398.0	585.196	F
2 - A2025 Grinstead Ln	1259	315	1850	891	1.414	891	753	428.4	520.5	1919.353	F
3 - A27 West	2134	534	552	1978	1.079	1978	2190	372.4	411.5	716.453	F
4 - Manor Road	381	95	2384	437	0.872	420	145	24.9	15.1	176.569	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2076	519	214	2385	0.870	2379	2533	398.0	322.2	545.121	F
2 - A2025 Grinstead Ln	1055	264	1846	893	1.181	893	747	520.5	560.9	2183.784	F
3 - A27 West	1787	447	553	1977	0.904	1972	2187	411.5	365.2	709.038	F
4 - Manor Road	319	80	2380	440	0.725	367	145	15.1	3.0	64.783	F

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	752.20	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2909	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	701	100.000
3 - A27 West		ONE HOUR	✓	2280	100.000
4 - Manor Road		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	680	1981	248
	2 - A2025 Grinstead Ln	592	0	37	72
	3 - A27 West	2102	162	0	16
	4 - Manor Road	131	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.35	775.84	539.9	F	2669	4004
2 - A2025 Grinstead Ln	0.89	35.70	7.2	E	643	965
3 - A27 West	1.47	1013.85	537.4	F	2092	3138
4 - Manor Road	0.54	16.93	1.2	C	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2190	548	193	2404	0.911	2155	2092	0.0	8.7	13.050	B
2 - A2025 Grinstead Ln	528	132	1692	986	0.535	523	657	0.0	1.1	7.711	A
3 - A27 West	1717	429	680	1887	0.910	1683	1535	0.0	8.3	15.735	C
4 - Manor Road	173	43	2114	627	0.276	172	250	0.0	0.4	7.887	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2615	654	216	2388	1.095	2370	2298	8.7	70.0	67.488	F
2 - A2025 Grinstead Ln	630	158	1864	874	0.721	625	722	1.1	2.4	14.143	B
3 - A27 West	2050	512	795	1805	1.135	1793	1694	8.3	72.4	90.046	F
4 - Manor Road	207	52	2308	490	0.422	205	280	0.4	0.7	12.559	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3203	801	230	2377	1.347	2377	2363	70.0	276.5	266.292	F
2 - A2025 Grinstead Ln	772	193	1880	864	0.893	756	727	2.4	6.4	29.638	D
3 - A27 West	2510	628	920	1715	1.463	1715	1717	72.4	271.2	365.743	F
4 - Manor Road	253	63	2341	467	0.542	252	293	0.7	1.1	16.555	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3203	801	230	2377	1.347	2377	2367	276.5	482.8	576.653	F
2 - A2025 Grinstead Ln	772	193	1881	864	0.894	769	726	6.4	7.2	35.700	E
3 - A27 West	2510	628	932	1706	1.471	1706	1718	271.2	472.1	769.987	F
4 - Manor Road	253	63	2344	466	0.544	253	295	1.1	1.2	16.926	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2615	654	217	2387	1.096	2387	2314	482.8	539.9	772.540	F
2 - A2025 Grinstead Ln	630	158	1878	865	0.728	647	726	7.2	2.8	17.666	C
3 - A27 West	2050	512	818	1789	1.146	1789	1708	472.1	537.4	1013.846	F
4 - Manor Road	207	52	2323	480	0.431	208	283	1.2	0.8	13.318	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2190	548	207	2394	0.915	2390	2267	539.9	490.0	775.843	F
2 - A2025 Grinstead Ln	528	132	1872	869	0.607	533	725	2.8	1.6	10.858	B
3 - A27 West	1717	429	709	1867	0.919	1863	1696	537.4	500.7	1002.898	F
4 - Manor Road	173	43	2300	496	0.349	174	272	0.8	0.5	11.212	B

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	892.20	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-35	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2731	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1391	100.000
3 - A27 West		ONE HOUR	✓	2347	100.000
4 - Manor Road		ONE HOUR	✓	422	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	665	1953	113
	2 - A2025 Grinstead Ln	631	0	694	66
	3 - A27 West	2208	138	0	1
	4 - Manor Road	307	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.27	554.47	374.6	F	2506	3759
2 - A2025 Grinstead Ln	1.73	2159.48	552.0	F	1276	1915
3 - A27 West	1.30	668.55	382.3	F	2154	3230
4 - Manor Road	1.06	180.27	23.6	F	387	581

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2056	514	187	2404	0.855	2034	2310	0.0	5.5	9.240	A
2 - A2025 Grinstead Ln	1047	262	1585	1065	0.984	992	637	0.0	13.7	37.082	E
3 - A27 West	1767	442	584	1953	0.905	1735	1993	0.0	8.0	14.843	B
4 - Manor Road	318	79	2185	576	0.551	313	135	0.0	1.2	13.440	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2455	614	215	2384	1.030	2334	2514	5.5	35.7	40.142	E
2 - A2025 Grinstead Ln	1250	313	1820	910	1.374	908	729	13.7	99.2	235.674	F
3 - A27 West	2110	527	555	1974	1.069	1950	2173	8.0	47.9	60.755	F
4 - Manor Road	379	95	2361	453	0.838	368	144	1.2	4.1	38.173	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3007	752	231	2372	1.267	2371	2571	35.7	194.6	179.847	F
2 - A2025 Grinstead Ln	1532	383	1855	887	1.726	887	747	99.2	260.3	736.175	F
3 - A27 West	2584	646	547	1981	1.305	1980	2196	47.9	199.0	229.663	F
4 - Manor Road	465	116	2381	439	1.059	420	145	4.1	15.2	103.774	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3007	752	234	2370	1.269	2370	2579	194.6	353.8	419.528	F
2 - A2025 Grinstead Ln	1532	383	1856	887	1.727	887	748	260.3	421.5	1389.552	F
3 - A27 West	2584	646	546	1981	1.305	1981	2197	199.0	349.9	502.328	F
4 - Manor Road	465	116	2382	438	1.060	431	145	15.2	23.6	180.274	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2455	614	231	2372	1.035	2372	2571	353.8	374.6	554.470	F
2 - A2025 Grinstead Ln	1250	313	1856	887	1.410	887	747	421.5	512.5	1898.084	F
3 - A27 West	2110	527	546	1981	1.065	1980	2196	349.9	382.3	668.551	F
4 - Manor Road	379	95	2382	438	0.865	421	145	23.6	13.3	163.639	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2056	514	214	2385	0.862	2378	2522	374.6	294.0	506.358	F
2 - A2025 Grinstead Ln	1047	262	1852	889	1.178	889	740	512.5	552.0	2159.477	F
3 - A27 West	1767	442	547	1980	0.892	1975	2194	382.3	330.4	649.802	F
4 - Manor Road	318	79	2377	442	0.720	359	145	13.3	2.9	55.820	F

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	725.91	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2869	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	700	100.000
3 - A27 West		ONE HOUR	✓	2276	100.000
4 - Manor Road		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	659	1960	250
	2 - A2025 Grinstead Ln	591	0	37	72
	3 - A27 West	2098	162	0	16
	4 - Manor Road	131	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.33	721.39	501.2	F	2633	3949
2 - A2025 Grinstead Ln	0.90	37.26	7.5	E	642	963
3 - A27 West	1.47	1012.37	535.7	F	2088	3133
4 - Manor Road	0.54	16.74	1.2	C	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2160	540	194	2403	0.899	2129	2088	0.0	7.8	12.027	B
2 - A2025 Grinstead Ln	527	132	1680	993	0.531	523	642	0.0	1.1	7.584	A
3 - A27 West	1713	428	681	1886	0.908	1681	1522	0.0	8.2	15.623	C
4 - Manor Road	173	43	2110	629	0.275	172	252	0.0	0.4	7.849	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2579	645	216	2387	1.081	2364	2295	7.8	61.5	60.716	F
2 - A2025 Grinstead Ln	629	157	1869	870	0.723	624	711	1.1	2.5	14.288	B
3 - A27 West	2046	512	798	1803	1.135	1791	1695	8.2	71.9	89.658	F
4 - Manor Road	207	52	2305	492	0.420	205	284	0.4	0.7	12.482	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3159	790	230	2376	1.329	2376	2359	61.5	257.3	245.668	F
2 - A2025 Grinstead Ln	771	193	1889	858	0.898	754	717	2.5	6.6	30.575	D
3 - A27 West	2506	626	922	1713	1.463	1713	1721	71.9	270.1	364.638	F
4 - Manor Road	253	63	2338	470	0.539	252	298	0.7	1.1	16.402	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3159	790	230	2376	1.329	2376	2363	257.3	452.9	539.927	F
2 - A2025 Grinstead Ln	771	193	1890	857	0.899	767	717	6.6	7.5	37.260	E
3 - A27 West	2506	626	935	1704	1.470	1704	1722	270.1	470.5	768.459	F
4 - Manor Road	253	63	2340	468	0.541	253	299	1.1	1.2	16.738	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2579	645	217	2386	1.081	2386	2311	452.9	501.2	721.390	F
2 - A2025 Grinstead Ln	629	157	1887	859	0.732	647	716	7.5	2.9	18.266	C
3 - A27 West	2046	512	822	1786	1.146	1785	1712	470.5	535.7	1012.373	F
4 - Manor Road	207	52	2320	482	0.429	208	288	1.2	0.8	13.208	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2160	540	207	2393	0.903	2388	2264	501.2	444.2	712.744	F
2 - A2025 Grinstead Ln	527	132	1880	863	0.611	532	715	2.9	1.6	11.042	B
3 - A27 West	1713	428	713	1864	0.919	1861	1700	535.7	498.9	1001.053	F
4 - Manor Road	173	43	2297	498	0.347	174	277	0.8	0.5	11.133	B

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	913.68	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-35	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2724	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1401	100.000
3 - A27 West		ONE HOUR	✓	2375	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	665	1948	111
	2 - A2025 Grinstead Ln	641	0	694	66
	3 - A27 West	2236	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.26	544.24	367.0	F	2500	3749
2 - A2025 Grinstead Ln	1.74	2200.03	563.3	F	1286	1928
3 - A27 West	1.32	714.21	410.6	F	2179	3269
4 - Manor Road	1.07	190.57	25.1	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2051	513	187	2404	0.853	2029	2335	0.0	5.4	9.130	A
2 - A2025 Grinstead Ln	1055	264	1580	1068	0.988	998	636	0.0	14.2	37.869	E
3 - A27 West	1788	447	589	1951	0.917	1753	1988	0.0	8.9	16.058	C
4 - Manor Road	319	80	2208	560	0.570	314	133	0.0	1.3	14.341	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2449	612	214	2385	1.027	2333	2525	5.4	34.4	39.113	E
2 - A2025 Grinstead Ln	1259	315	1817	912	1.381	910	729	14.2	101.5	240.720	F
3 - A27 West	2135	534	558	1973	1.082	1954	2170	8.9	54.2	67.084	F
4 - Manor Road	381	95	2369	448	0.851	369	142	1.3	4.4	40.515	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2999	750	229	2374	1.264	2372	2576	34.4	191.2	176.230	F
2 - A2025 Grinstead Ln	1543	386	1855	888	1.737	888	747	101.5	265.2	750.124	F
3 - A27 West	2615	654	549	1980	1.321	1979	2194	54.2	213.1	247.962	F
4 - Manor Road	467	117	2385	437	1.068	420	143	4.4	16.0	108.786	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2999	750	232	2372	1.265	2371	2584	191.2	348.1	412.343	F
2 - A2025 Grinstead Ln	1543	386	1855	887	1.739	887	748	265.2	429.0	1413.714	F
3 - A27 West	2615	654	548	1980	1.321	1980	2194	213.1	371.8	534.993	F
4 - Manor Road	467	117	2385	437	1.069	430	143	16.0	25.1	190.571	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2449	612	229	2374	1.032	2373	2576	348.1	367.0	544.241	F
2 - A2025 Grinstead Ln	1259	315	1855	887	1.419	887	747	429.0	522.0	1931.230	F
3 - A27 West	2135	534	548	1980	1.078	1980	2194	371.8	410.6	714.212	F
4 - Manor Road	381	95	2385	437	0.873	420	143	25.1	15.4	178.547	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2051	513	215	2384	0.860	2378	2535	367.0	285.3	494.188	F
2 - A2025 Grinstead Ln	1055	264	1851	890	1.185	890	741	522.0	563.3	2200.029	F
3 - A27 West	1788	447	549	1979	0.903	1975	2192	410.6	363.9	706.154	F
4 - Manor Road	319	80	2381	440	0.726	368	143	15.4	3.1	66.258	F

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - Manor Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	718.23	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2874	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	690	100.000
3 - A27 West		ONE HOUR	✓	2270	100.000
4 - Manor Road		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	666	1962	246
	2 - A2025 Grinstead Ln	581	0	37	72
	3 - A27 West	2092	162	0	16
	4 - Manor Road	130	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.33	728.87	506.7	F	2637	3956
2 - A2025 Grinstead Ln	0.88	33.18	6.6	D	633	950
3 - A27 West	1.46	981.26	520.4	F	2083	3124
4 - Manor Road	0.54	16.64	1.1	C	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2164	541	194	2403	0.900	2132	2077	0.0	7.9	12.151	B
2 - A2025 Grinstead Ln	519	130	1678	994	0.523	515	647	0.0	1.1	7.461	A
3 - A27 West	1709	427	671	1893	0.903	1678	1523	0.0	7.8	15.019	C
4 - Manor Road	172	43	2100	636	0.271	171	249	0.0	0.4	7.745	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2584	646	217	2386	1.083	2364	2291	7.9	62.7	61.657	F
2 - A2025 Grinstead Ln	620	155	1865	873	0.710	615	716	1.1	2.3	13.702	B
3 - A27 West	2041	510	786	1811	1.127	1798	1694	7.8	68.4	85.493	F
4 - Manor Road	206	51	2303	493	0.417	205	280	0.4	0.7	12.411	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3164	791	231	2376	1.332	2375	2356	62.7	260.0	248.622	F
2 - A2025 Grinstead Ln	760	190	1884	861	0.882	745	723	2.3	6.0	28.077	D
3 - A27 West	2499	625	910	1722	1.451	1722	1719	68.4	262.8	351.538	F
4 - Manor Road	252	63	2337	470	0.537	250	294	0.7	1.1	16.292	C

17:30 - 17:45

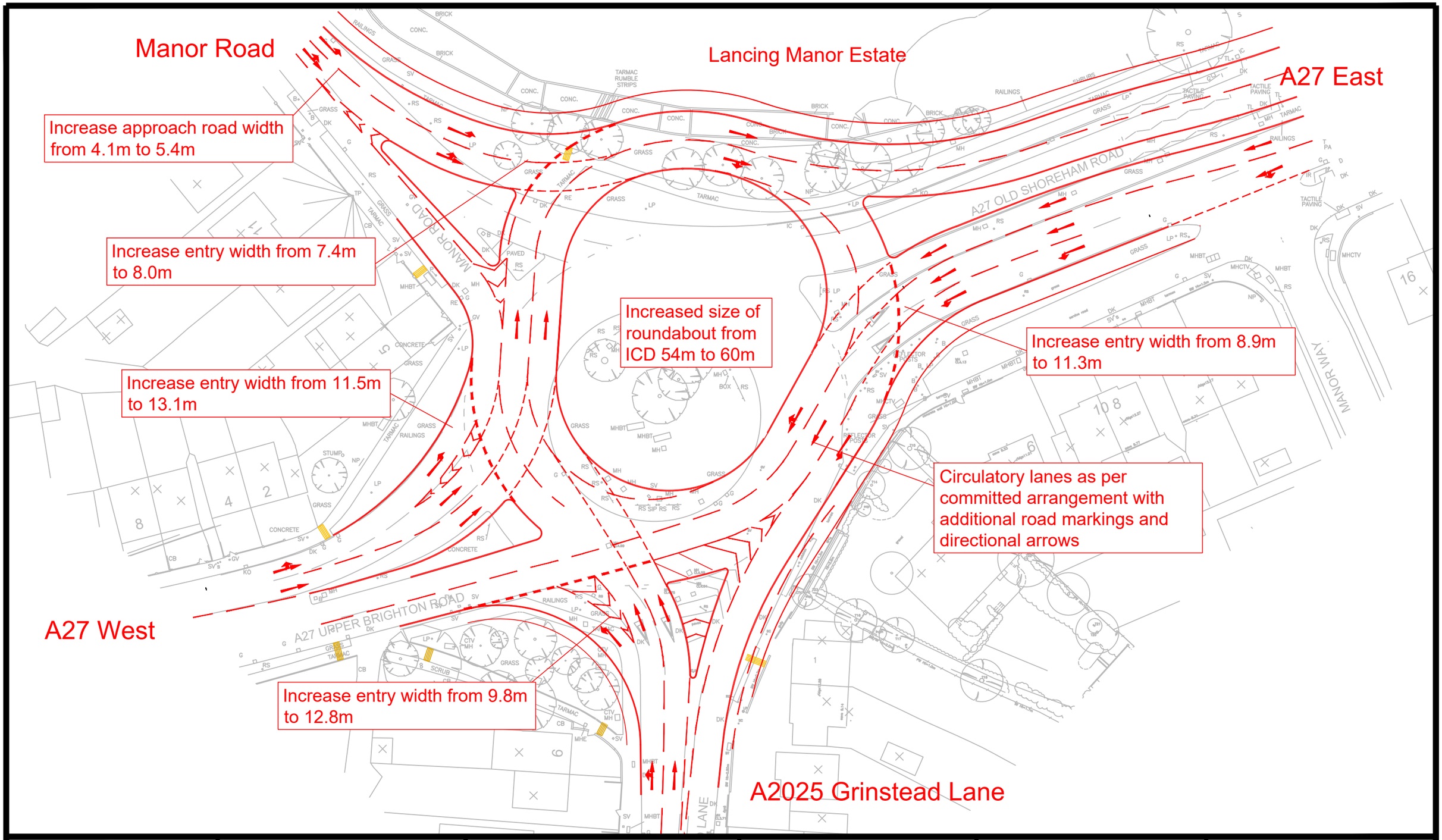
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3164	791	231	2376	1.332	2376	2360	260.0	457.1	545.266	F
2 - A2025 Grinstead Ln	760	190	1885	860	0.883	757	722	6.0	6.6	33.179	D
3 - A27 West	2499	625	921	1714	1.458	1714	1721	262.8	459.2	745.384	F
4 - Manor Road	252	63	2339	468	0.539	252	296	1.1	1.1	16.637	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2584	646	218	2385	1.083	2385	2308	457.1	506.7	728.873	F
2 - A2025 Grinstead Ln	620	155	1881	862	0.719	636	722	6.6	2.7	16.851	C
3 - A27 West	2041	510	807	1796	1.136	1796	1710	459.2	520.4	981.265	F
4 - Manor Road	206	51	2319	483	0.427	207	284	1.1	0.8	13.152	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2164	541	208	2392	0.904	2388	2262	506.7	450.8	721.970	F
2 - A2025 Grinstead Ln	519	130	1875	866	0.600	524	721	2.7	1.5	10.668	B
3 - A27 West	1709	427	701	1872	0.913	1868	1698	520.4	480.5	964.400	F
4 - Manor Road	172	43	2297	498	0.346	173	273	0.8	0.5	11.111	B



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T R A F F I C &
H I G H W A Y S

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NOTES

1. PRELIMINARY DESIGN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAILS ARE SUBJECT TO INCLUDING CHECKING STATATORY SERVICE APPARATUS.
2. DO NOT SCALE FROM THIS DRAWING.
3. BACKGROUND PLAN IS BASED UPON A DIGITAL OSBASE.
4. ALL DETAILS TO BE CONFIRMED ON SITE AND ON A TOPOGRAPHICAL SURVEY.
5. ALL TRACKS ASSUME GRADIENTS AND CAMBERS DO NOT EXCEED 1:60 AND 1:40 RESPECTIVELY OTHERWISE VEHICLE MANOEUVRABILITY MAY BE AFFECTED.
6. ALL LAND OWNERSHIP DETAILS, EXTENT OF ADOPTED HIGHWAY AND RIGHTS OF WAY TO BE CONFIRMED.
7. ASSUMES ALL LANDSCAPING CAN BE ALTERED AND NO TREES ARE SUBJECT TO TPO.

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AMENDMENTS

REF.	DATE	DESCRIPTION

ADL Job No. 5201

Project: SHOREHAM CEMENT WORKS SHOREHAM

Title: PROPOSED JUNCTION IMPROVEMENTS A27/GRINSTEAD LANE ROUNDABOUT

Date	Drawn		
03/11/2021	MAW		
Checked	Date	Approved	Date
Scale: NTS @ A3	Drg No.: APPENDIX 23.2		Rev.

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 12 (Lancing Manor Rdbt) Proposed.j9
Path: D:\5201 Shoreham\Off-Site Junctions\Junction 12 (Lancing Manor Rdbt)
Report generation date: 21/01/2022 12:32:30

»Scenario 1 Total, AM
»Scenario 1 Total, PM
»Scenario 2 Total, AM
»Scenario 2 Total, PM
»Scenario 3 Total, AM
»Scenario 3 Total, PM
»Scenario 4 Total, AM
»Scenario 4 Total, PM

APPENDIX 23.3
ARCADY OUTPUTS: PROPOSED DEVELOPMENT SCENARIOS
(WITH PROPOSED JUNCTION IMPROVEMENTS)

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Scenario 1 Total														
1 - A27 East	154.4	158.76	1.10	F	572.71	F	-28 % [2 - A2025 Grinstead Ln]	228.2	270.05	1.15	F	446.68	F	-26 % [3 - A27 West]
2 - A2025 Grinstead Ln	463.8	1536.66	1.71	F				6.9	34.40	0.89	D			
3 - A27 West	338.5	583.17	1.27	F				466.5	839.93	1.41	F			
4 - Manor Road	6.5	54.15	0.89	F				0.8	11.87	0.46	B			
Scenario 2 Total														
1 - A27 East	146.6	151.36	1.10	F	563.78	F	-28 % [2 - A2025 Grinstead Ln]	225.6	266.29	1.15	F	437.11	F	-26 % [3 - A27 West]
2 - A2025 Grinstead Ln	459.8	1509.91	1.71	F				6.7	33.31	0.89	D			
3 - A27 West	336.2	579.89	1.27	F				454.8	819.69	1.41	F			
4 - Manor Road	6.6	54.39	0.89	F				0.8	11.81	0.45	B			
Scenario 3 Total														
1 - A27 East	133.3	138.79	1.09	F	535.46	F	-27 % [2 - A2025 Grinstead Ln]	203.4	232.48	1.14	F	421.61	F	-26 % [3 - A27 West]
2 - A2025 Grinstead Ln	451.5	1466.87	1.70	F				7.0	34.95	0.89	D			
3 - A27 West	308.1	536.37	1.25	F				453.2	818.00	1.40	F			
4 - Manor Road	6.3	52.34	0.89	F				0.8	11.71	0.45	B			
Scenario 4 Total														
1 - A27 East	129.2	134.83	1.08	F	553.56	F	-28 % [2 - A2025 Grinstead Ln]	206.6	237.40	1.14	F	413.14	F	-25 % [3 - A27 West]
2 - A2025 Grinstead Ln	459.7	1480.64	1.72	F				6.2	31.15	0.88	D			
3 - A27 West	335.6	580.43	1.27	F				438.2	790.00	1.39	F			
4 - Manor Road	6.6	54.77	0.89	F				0.8	11.67	0.45	B			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUK\Junction
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2033 Base	AM	ONE HOUR	07:45	09:15	15			
D2	2033 Base	PM	ONE HOUR	16:45	18:15	15			
D3	Permitted	AM	ONE HOUR	07:45	09:15	15			
D4	Permitted	PM	ONE HOUR	16:45	18:15	15			
D5	Scenario 1	AM	ONE HOUR	07:45	09:15	15			
D6	Scenario 1	PM	ONE HOUR	16:45	18:15	15			
D7	Scenario 2	AM	ONE HOUR	07:45	09:15	15			
D8	Scenario 2	PM	ONE HOUR	16:45	18:15	15			
D9	Scenario 3	AM	ONE HOUR	07:45	09:15	15			
D10	Scenario 3	PM	ONE HOUR	16:45	18:15	15			
D11	Scenario 4	AM	ONE HOUR	07:45	09:15	15			
D12	Scenario 4	PM	ONE HOUR	16:45	18:15	15			
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Scenario 1 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	572.71	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	2 - A2025 Grinstead Ln

Arms

Arms

Arm	Name	Description
1	A27 East	
2	A2025 Grinstead Ln	
3	A27 West	
4	Manor Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A27 East	7.20	11.30	38.5	25.0	60.0	37.0	
2 - A2025 Grinstead Ln	5.50	12.80	15.0	20.0	60.0	43.0	
3 - A27 West	5.00	13.10	16.4	40.0	60.0	25.0	
4 - Manor Road	5.40	8.00	22.4	30.0	60.0	46.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 East	0.789	3063
2 - A2025 Grinstead Ln	0.669	2417
3 - A27 West	0.719	2569
4 - Manor Road	0.620	2124

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Scenario 1 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2773	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1404	100.000
3 - A27 West		ONE HOUR	✓	2375	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	685	1972	116
	2 - A2025 Grinstead Ln	644	0	694	66
	3 - A27 West	2236	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.10	158.76	154.4	F	2545	3817
2 - A2025 Grinstead Ln	1.71	1536.66	463.8	F	1288	1932
3 - A27 West	1.27	583.17	338.5	F	2179	3269
4 - Manor Road	0.89	54.15	6.5	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2088	522	188	2813	0.742	2076	2366	0.0	2.8	4.817	A
2 - A2025 Grinstead Ln	1057	264	1610	1271	0.832	1039	655	0.0	4.5	14.574	B
3 - A27 West	1788	447	615	2035	0.878	1762	2033	0.0	6.5	12.217	B
4 - Manor Road	319	80	2238	676	0.472	316	139	0.0	0.9	9.892	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2493	623	217	2790	0.893	2474	2628	2.8	7.5	10.783	B
2 - A2025 Grinstead Ln	1262	316	1918	1062	1.189	1052	774	4.5	57.1	119.638	F
3 - A27 West	2135	534	639	2019	1.058	1988	2330	6.5	43.2	53.966	F
4 - Manor Road	381	95	2470	529	0.721	375	157	0.9	2.4	22.634	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3053	763	243	2771	1.102	2752	2688	7.5	82.8	65.831	F
2 - A2025 Grinstead Ln	1546	386	2139	912	1.695	912	856	57.1	215.6	547.474	F
3 - A27 West	2615	654	581	2061	1.269	2060	2470	43.2	182.0	201.990	F
4 - Manor Road	467	117	2477	524	0.891	453	163	2.4	5.7	44.192	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3053	763	246	2769	1.103	2767	2695	82.8	154.4	158.761	F
2 - A2025 Grinstead Ln	1546	386	2151	904	1.710	904	861	215.6	376.1	1158.717	F
3 - A27 West	2615	654	577	2063	1.267	2063	2478	182.0	319.9	441.459	F
4 - Manor Road	467	117	2477	524	0.891	464	163	5.7	6.5	54.145	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2493	623	227	2783	0.896	2765	2646	154.4	86.4	157.788	F
2 - A2025 Grinstead Ln	1262	316	2140	911	1.385	911	852	376.1	463.8	1536.661	F
3 - A27 West	2135	534	580	2061	1.036	2061	2471	319.9	338.5	583.170	F
4 - Manor Road	381	95	2478	523	0.728	396	163	6.5	2.9	30.587	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2088	522	204	2801	0.745	2421	2620	86.4	3.0	22.973	C
2 - A2025 Grinstead Ln	1057	264	1870	1094	0.966	1092	755	463.8	455.2	1515.610	F
3 - A27 West	1788	447	656	2006	0.891	2000	2306	338.5	285.4	561.686	F
4 - Manor Road	319	80	2500	509	0.627	324	156	2.9	1.8	19.887	C

Scenario 1 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	446.68	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	Scenario 1 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2914	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	705	100.000
3 - A27 West		ONE HOUR	✓	2289	100.000
4 - Manor Road		ONE HOUR	✓	231	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	682	1983	249
	2 - A2025 Grinstead Ln	596	0	37	72
	3 - A27 West	2111	162	0	16
	4 - Manor Road	132	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.15	270.05	228.2	F	2674	4011
2 - A2025 Grinstead Ln	0.89	34.40	6.9	D	647	970
3 - A27 West	1.41	839.93	466.5	F	2100	3151
4 - Manor Road	0.46	11.87	0.8	B	212	318

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2194	548	194	2812	0.780	2180	2112	0.0	3.4	5.581	A
2 - A2025 Grinstead Ln	531	133	1710	1192	0.445	528	664	0.0	0.8	5.396	A
3 - A27 West	1723	431	687	1986	0.868	1700	1551	0.0	5.9	11.729	B
4 - Manor Road	174	43	2134	743	0.234	173	253	0.0	0.3	6.300	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2620	655	221	2791	0.938	2586	2375	3.4	11.8	15.498	C
2 - A2025 Grinstead Ln	634	158	2029	978	0.648	630	778	0.8	1.8	10.229	B
3 - A27 West	2058	514	819	1893	1.087	1870	1840	5.9	52.8	65.834	F
4 - Manor Road	208	52	2390	580	0.358	207	299	0.3	0.5	9.623	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3208	802	235	2780	1.154	2772	2440	11.8	121.0	92.224	F
2 - A2025 Grinstead Ln	776	194	2182	876	0.887	759	825	1.8	6.1	27.557	D
3 - A27 West	2520	630	957	1794	1.405	1793	1984	52.8	234.6	293.855	F
4 - Manor Road	254	64	2422	559	0.455	253	328	0.5	0.8	11.734	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3208	802	235	2780	1.154	2780	2444	121.0	228.2	229.606	F
2 - A2025 Grinstead Ln	776	194	2189	871	0.891	773	826	6.1	6.9	34.397	D
3 - A27 West	2520	630	971	1784	1.413	1784	1991	234.6	418.7	650.055	F
4 - Manor Road	254	64	2425	557	0.456	254	330	0.8	0.8	11.870	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2620	655	222	2791	0.939	2779	2391	228.2	188.4	270.048	F
2 - A2025 Grinstead Ln	634	158	2177	879	0.721	651	823	6.9	2.7	16.812	C
3 - A27 West	2058	514	855	1867	1.102	1867	1973	418.7	466.5	839.935	F
4 - Manor Road	208	52	2404	571	0.364	209	318	0.8	0.6	9.969	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2194	548	212	2798	0.784	2783	2342	188.4	41.0	150.344	F
2 - A2025 Grinstead Ln	531	133	2173	881	0.602	535	823	2.7	1.6	10.543	B
3 - A27 West	1723	431	746	1945	0.886	1941	1962	466.5	412.1	814.971	F
4 - Manor Road	174	43	2380	586	0.297	175	307	0.6	0.4	8.764	A

Scenario 2 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	563.78	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	Scenario 2 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D7

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2758	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1401	100.000
3 - A27 West		ONE HOUR	✓	2374	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	680	1964	114
	2 - A2025 Grinstead Ln	641	0	694	66
	3 - A27 West	2235	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.10	151.36	146.6	F	2531	3796
2 - A2025 Grinstead Ln	1.71	1509.91	459.8	F	1286	1928
3 - A27 West	1.27	579.89	336.2	F	2178	3268
4 - Manor Road	0.89	54.39	6.6	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2076	519	188	2812	0.738	2065	2363	0.0	2.8	4.750	A
2 - A2025 Grinstead Ln	1055	264	1602	1276	0.827	1037	651	0.0	4.4	14.219	B
3 - A27 West	1787	447	612	2038	0.877	1762	2028	0.0	6.4	12.107	B
4 - Manor Road	319	80	2236	678	0.471	316	138	0.0	0.9	9.852	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2479	620	217	2790	0.889	2461	2628	2.8	7.2	10.433	B
2 - A2025 Grinstead Ln	1259	315	1909	1067	1.180	1056	769	4.4	55.2	115.577	F
3 - A27 West	2134	534	638	2019	1.057	1988	2327	6.4	42.9	53.665	F
4 - Manor Road	381	95	2470	528	0.722	375	156	0.9	2.4	22.708	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3037	759	243	2770	1.096	2750	2688	7.2	78.9	63.238	F
2 - A2025 Grinstead Ln	1543	386	2138	912	1.691	912	855	55.2	212.8	538.306	F
3 - A27 West	2614	653	578	2062	1.267	2061	2472	42.9	181.0	200.789	F
4 - Manor Road	467	117	2478	523	0.892	453	162	2.4	5.7	44.363	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3037	759	246	2768	1.097	2766	2695	78.9	146.6	151.364	F
2 - A2025 Grinstead Ln	1543	386	2152	903	1.708	903	860	212.8	372.7	1145.683	F
3 - A27 West	2614	653	574	2065	1.266	2065	2480	181.0	318.2	438.792	F
4 - Manor Road	467	117	2477	524	0.891	464	162	5.7	6.6	54.395	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2479	620	227	2782	0.891	2763	2647	146.6	75.6	145.993	F
2 - A2025 Grinstead Ln	1259	315	2140	911	1.383	911	851	372.7	459.8	1509.907	F
3 - A27 West	2134	534	578	2063	1.035	2062	2473	318.2	336.2	579.893	F
4 - Manor Road	381	95	2478	523	0.729	396	162	6.6	2.9	30.718	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2076	519	204	2800	0.741	2367	2625	75.6	3.0	16.745	C
2 - A2025 Grinstead Ln	1055	264	1831	1120	0.941	1118	740	459.8	444.0	1455.201	F
3 - A27 West	1787	447	665	2000	0.894	1994	2284	336.2	284.5	560.587	F
4 - Manor Road	319	80	2505	506	0.630	324	154	2.9	1.8	20.189	C

Scenario 2 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	437.11	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	Scenario 2 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D8

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2909	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	701	100.000
3 - A27 West		ONE HOUR	✓	2280	100.000
4 - Manor Road		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	680	1981	248
	2 - A2025 Grinstead Ln	592	0	37	72
	3 - A27 West	2102	162	0	16
	4 - Manor Road	131	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.15	266.29	225.6	F	2669	4004
2 - A2025 Grinstead Ln	0.89	33.31	6.7	D	643	965
3 - A27 West	1.41	819.69	454.8	F	2092	3138
4 - Manor Road	0.45	11.81	0.8	B	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2190	548	194	2812	0.779	2176	2102	0.0	3.4	5.552	A
2 - A2025 Grinstead Ln	528	132	1708	1193	0.442	525	663	0.0	0.8	5.364	A
3 - A27 West	1717	429	683	1989	0.863	1694	1549	0.0	5.7	11.437	B
4 - Manor Road	173	43	2125	749	0.231	172	252	0.0	0.3	6.231	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2615	654	222	2791	0.937	2582	2371	3.4	11.6	15.310	C
2 - A2025 Grinstead Ln	630	158	2027	979	0.644	626	777	0.8	1.8	10.096	B
3 - A27 West	2050	512	814	1895	1.081	1871	1839	5.7	50.3	63.305	F
4 - Manor Road	207	52	2387	581	0.356	206	299	0.3	0.5	9.566	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3203	801	236	2780	1.152	2771	2437	11.6	119.7	91.293	F
2 - A2025 Grinstead Ln	772	193	2182	875	0.882	755	825	1.8	5.9	26.915	D
3 - A27 West	2510	628	953	1796	1.397	1796	1985	50.3	228.9	285.347	F
4 - Manor Road	253	63	2421	559	0.453	252	327	0.5	0.8	11.680	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3203	801	236	2780	1.152	2779	2441	119.7	225.6	227.193	F
2 - A2025 Grinstead Ln	772	193	2189	871	0.886	769	826	5.9	6.7	33.309	D
3 - A27 West	2510	628	966	1787	1.405	1787	1991	228.9	409.9	634.861	F
4 - Manor Road	253	63	2423	558	0.454	253	330	0.8	0.8	11.808	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2615	654	222	2790	0.937	2778	2388	225.6	185.0	266.288	F
2 - A2025 Grinstead Ln	630	158	2177	878	0.717	646	823	6.7	2.7	16.459	C
3 - A27 West	2050	512	850	1870	1.096	1870	1974	409.9	454.8	819.691	F
4 - Manor Road	207	52	2403	571	0.362	208	317	0.8	0.6	9.931	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2190	548	213	2797	0.783	2782	2340	185.0	36.9	145.599	F
2 - A2025 Grinstead Ln	528	132	2173	881	0.599	532	822	2.7	1.5	10.452	B
3 - A27 West	1717	429	742	1947	0.881	1943	1963	454.8	398.2	790.331	F
4 - Manor Road	173	43	2379	586	0.295	174	306	0.6	0.4	8.740	A

Scenario 3 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	535.46	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-27	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	Scenario 3 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D9

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2731	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1391	100.000
3 - A27 West		ONE HOUR	✓	2347	100.000
4 - Manor Road		ONE HOUR	✓	422	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	665	1953	113
	2 - A2025 Grinstead Ln	631	0	694	66
	3 - A27 West	2208	138	0	1
	4 - Manor Road	307	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.09	138.79	133.3	F	2506	3759
2 - A2025 Grinstead Ln	1.70	1466.87	451.5	F	1276	1915
3 - A27 West	1.25	536.37	308.1	F	2154	3230
4 - Manor Road	0.89	52.34	6.3	F	387	581

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2056	514	188	2811	0.731	2045	2337	0.0	2.7	4.637	A
2 - A2025 Grinstead Ln	1047	262	1594	1281	0.817	1031	640	0.0	4.1	13.604	B
3 - A27 West	1767	442	604	2042	0.865	1744	2020	0.0	5.8	11.300	B
4 - Manor Road	318	79	2210	693	0.458	314	137	0.0	0.8	9.424	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2455	614	218	2788	0.881	2439	2618	2.7	6.8	9.869	A
2 - A2025 Grinstead Ln	1250	313	1900	1073	1.165	1061	757	4.1	51.5	108.488	F
3 - A27 West	2110	527	636	2020	1.045	1982	2325	5.8	37.8	48.692	E
4 - Manor Road	379	95	2463	532	0.713	374	156	0.8	2.3	21.925	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3007	752	244	2768	1.086	2745	2682	6.8	72.3	58.875	F
2 - A2025 Grinstead Ln	1532	383	2143	909	1.685	908	846	51.5	207.3	522.454	F
3 - A27 West	2584	646	573	2065	1.251	2064	2478	37.8	167.9	184.833	F
4 - Manor Road	465	116	2475	525	0.886	452	162	2.3	5.5	43.014	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3007	752	247	2766	1.087	2763	2689	72.3	133.3	138.795	F
2 - A2025 Grinstead Ln	1532	383	2158	898	1.705	898	852	207.3	365.6	1124.256	F
3 - A27 West	2584	646	569	2068	1.249	2068	2487	167.9	296.9	408.243	F
4 - Manor Road	465	116	2475	525	0.885	462	162	5.5	6.3	52.335	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2455	614	229	2780	0.883	2759	2640	133.3	57.2	125.898	F
2 - A2025 Grinstead Ln	1250	313	2145	907	1.379	907	843	365.6	451.5	1466.869	F
3 - A27 West	2110	527	572	2066	1.021	2065	2480	296.9	308.1	536.371	F
4 - Manor Road	379	95	2475	524	0.724	393	162	6.3	2.9	29.693	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2056	514	204	2799	0.735	2274	2626	57.2	2.8	10.509	B
2 - A2025 Grinstead Ln	1047	262	1767	1163	0.900	1161	711	451.5	423.2	1356.618	F
3 - A27 West	1767	442	679	1989	0.888	1982	2249	308.1	254.3	510.927	F
4 - Manor Road	318	79	2508	503	0.631	322	153	2.9	1.8	20.291	C

Scenario 3 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	421.61	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	Scenario 3 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2869	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	700	100.000
3 - A27 West		ONE HOUR	✓	2276	100.000
4 - Manor Road		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	659	1960	250
	2 - A2025 Grinstead Ln	591	0	37	72
	3 - A27 West	2098	162	0	16
	4 - Manor Road	131	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.14	232.48	203.4	F	2633	3949
2 - A2025 Grinstead Ln	0.89	34.95	7.0	D	642	963
3 - A27 West	1.40	818.00	453.2	F	2088	3133
4 - Manor Road	0.45	11.71	0.8	B	211	317

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2160	540	194	2810	0.769	2147	2099	0.0	3.2	5.327	A
2 - A2025 Grinstead Ln	527	132	1694	1202	0.439	524	647	0.0	0.8	5.288	A
3 - A27 West	1713	428	684	1988	0.862	1691	1534	0.0	5.7	11.367	B
4 - Manor Road	173	43	2121	751	0.231	172	254	0.0	0.3	6.208	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2579	645	222	2789	0.925	2551	2369	3.2	10.2	13.761	B
2 - A2025 Grinstead Ln	629	157	2014	988	0.637	626	759	0.8	1.7	9.846	A
3 - A27 West	2046	512	816	1894	1.080	1870	1824	5.7	49.8	62.768	F
4 - Manor Road	207	52	2385	583	0.355	206	301	0.3	0.5	9.531	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3159	790	236	2778	1.137	2767	2433	10.2	108.1	83.141	F
2 - A2025 Grinstead Ln	771	193	2191	869	0.887	753	813	1.7	6.1	27.663	D
3 - A27 West	2506	626	955	1794	1.397	1794	1988	49.8	227.8	284.005	F
4 - Manor Road	253	63	2417	562	0.451	252	332	0.5	0.8	11.582	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3159	790	236	2778	1.137	2777	2436	108.1	203.4	205.665	F
2 - A2025 Grinstead Ln	771	193	2199	864	0.892	767	814	6.1	7.0	34.946	D
3 - A27 West	2506	626	970	1784	1.405	1784	1996	227.8	408.3	633.236	F
4 - Manor Road	253	63	2419	560	0.452	253	335	0.8	0.8	11.711	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2579	645	222	2789	0.925	2775	2384	203.4	154.4	232.482	F
2 - A2025 Grinstead Ln	629	157	2187	872	0.722	646	811	7.0	2.7	17.034	C
3 - A27 West	2046	512	855	1866	1.096	1866	1978	408.3	453.2	817.996	F
4 - Manor Road	207	52	2399	573	0.361	208	322	0.8	0.6	9.870	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2160	540	213	2796	0.773	2760	2337	154.4	4.5	103.327	F
2 - A2025 Grinstead Ln	527	132	2167	885	0.596	532	806	2.7	1.5	10.339	B
3 - A27 West	1713	428	745	1945	0.881	1941	1953	453.2	396.4	788.067	F
4 - Manor Road	173	43	2376	588	0.295	174	310	0.6	0.4	8.705	A

Scenario 4 Total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	553.56	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	2 - A2025 Grinstead Ln

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D19	Scenario 4 Total	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D1-D3+D11

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2724	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	1401	100.000
3 - A27 West		ONE HOUR	✓	2375	100.000
4 - Manor Road		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	665	1948	111
	2 - A2025 Grinstead Ln	641	0	694	66
	3 - A27 West	2236	138	0	1
	4 - Manor Road	309	53	58	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.08	134.83	129.2	F	2500	3749
2 - A2025 Grinstead Ln	1.72	1480.64	459.7	F	1286	1928
3 - A27 West	1.27	580.43	335.6	F	2179	3269
4 - Manor Road	0.89	54.77	6.6	F	389	584

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2051	513	188	2811	0.729	2040	2364	0.0	2.6	4.607	A
2 - A2025 Grinstead Ln	1055	264	1588	1285	0.821	1038	640	0.0	4.2	13.775	B
3 - A27 West	1788	447	610	2039	0.877	1763	2016	0.0	6.4	12.086	B
4 - Manor Road	319	80	2237	677	0.471	316	136	0.0	0.9	9.868	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2449	612	217	2789	0.878	2433	2632	2.6	6.6	9.706	A
2 - A2025 Grinstead Ln	1259	315	1894	1077	1.169	1065	756	4.2	52.7	110.345	F
3 - A27 West	2135	534	640	2018	1.058	1987	2319	6.4	43.4	54.092	F
4 - Manor Road	381	95	2474	526	0.725	375	154	0.9	2.4	22.969	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2999	750	243	2769	1.083	2745	2689	6.6	70.3	57.506	F
2 - A2025 Grinstead Ln	1543	386	2141	910	1.695	910	847	52.7	210.9	531.490	F
3 - A27 West	2615	654	575	2065	1.267	2063	2475	43.4	181.2	201.177	F
4 - Manor Road	467	117	2479	523	0.893	453	160	2.4	5.8	44.687	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2999	750	246	2767	1.084	2764	2696	70.3	129.2	134.827	F
2 - A2025 Grinstead Ln	1543	386	2157	899	1.715	899	853	210.9	371.8	1139.808	F
3 - A27 West	2615	654	571	2068	1.265	2068	2485	181.2	318.1	438.307	F
4 - Manor Road	467	117	2478	523	0.892	464	160	5.8	6.6	54.769	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2449	612	227	2781	0.881	2760	2648	129.2	51.5	119.630	F
2 - A2025 Grinstead Ln	1259	315	2144	908	1.387	908	843	371.8	459.7	1480.641	F
3 - A27 West	2135	534	574	2065	1.034	2065	2477	318.1	335.6	580.432	F
4 - Manor Road	381	95	2479	523	0.729	396	160	6.6	3.0	30.914	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2051	513	203	2800	0.732	2246	2636	51.5	2.8	9.300	A
2 - A2025 Grinstead Ln	1055	264	1745	1179	0.895	1176	704	459.7	429.4	1360.934	F
3 - A27 West	1788	447	688	1983	0.902	1977	2233	335.6	288.3	568.216	F
4 - Manor Road	319	80	2515	500	0.639	324	151	3.0	1.9	20.893	C

Scenario 4 Total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	413.14	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-25	3 - A27 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D20	Scenario 4 Total	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D2-D4+D12

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A27 East		ONE HOUR	✓	2874	100.000
2 - A2025 Grinstead Ln		ONE HOUR	✓	690	100.000
3 - A27 West		ONE HOUR	✓	2270	100.000
4 - Manor Road		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	666	1962	246
	2 - A2025 Grinstead Ln	581	0	37	72
	3 - A27 West	2092	162	0	16
	4 - Manor Road	130	45	53	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A27 East	2 - A2025 Grinstead Ln	3 - A27 West	4 - Manor Road
From	1 - A27 East	0	3	4	1
	2 - A2025 Grinstead Ln	4	0	1	1
	3 - A27 West	4	2	0	0
	4 - Manor Road	1	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A27 East	1.14	237.40	206.6	F	2637	3956
2 - A2025 Grinstead Ln	0.88	31.15	6.2	D	633	950
3 - A27 West	1.39	790.00	438.2	F	2083	3124
4 - Manor Road	0.45	11.67	0.8	B	210	315

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2164	541	194	2811	0.770	2151	2087	0.0	3.3	5.355	A
2 - A2025 Grinstead Ln	519	130	1693	1202	0.432	516	652	0.0	0.8	5.228	A
3 - A27 West	1709	427	674	1995	0.857	1687	1536	0.0	5.5	11.013	B
4 - Manor Road	172	43	2110	757	0.228	171	251	0.0	0.3	6.128	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2584	646	222	2789	0.926	2555	2364	3.3	10.4	13.967	B
2 - A2025 Grinstead Ln	620	155	2011	989	0.627	617	766	0.8	1.6	9.592	A
3 - A27 West	2041	510	803	1903	1.073	1876	1825	5.5	46.7	59.529	F
4 - Manor Road	206	51	2382	584	0.352	205	297	0.3	0.5	9.469	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3164	791	237	2778	1.139	2767	2431	10.4	109.7	84.296	F
2 - A2025 Grinstead Ln	760	190	2185	873	0.871	744	819	1.6	5.5	25.504	D
3 - A27 West	2499	625	942	1803	1.386	1803	1987	46.7	220.9	272.729	F
4 - Manor Road	252	63	2417	562	0.449	251	328	0.5	0.8	11.550	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	3164	791	237	2778	1.139	2777	2434	109.7	206.6	208.773	F
2 - A2025 Grinstead Ln	760	190	2193	867	0.876	757	821	5.5	6.2	31.154	D
3 - A27 West	2499	625	955	1794	1.393	1794	1995	220.9	397.3	612.355	F
4 - Manor Road	252	63	2419	560	0.450	252	330	0.8	0.8	11.672	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2584	646	223	2788	0.927	2775	2382	206.6	158.8	237.398	F
2 - A2025 Grinstead Ln	620	155	2181	875	0.709	635	818	6.2	2.6	15.776	C
3 - A27 West	2041	510	839	1877	1.087	1877	1976	397.3	438.2	789.999	F
4 - Manor Road	206	51	2398	573	0.359	207	318	0.8	0.6	9.846	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A27 East	2164	541	214	2796	0.774	2777	2335	158.8	5.4	109.395	F
2 - A2025 Grinstead Ln	519	130	2174	879	0.591	524	817	2.6	1.5	10.250	B
3 - A27 West	1709	427	734	1953	0.875	1948	1964	438.2	378.4	754.642	F
4 - Manor Road	172	43	2375	588	0.293	173	307	0.6	0.4	8.683	A

Parameter		Variable	Paragraph	CD116 Requirement	Design Actual	Acceptable	Comments
ICD		D	3.1 to 3.5	D value between 28m and 100m	60.0	Yes	
Circulatory width		c	3.6 to 3.9	c value ≤15m		Yes	
Manor Road	Arm 1 (entry width)	e	3.6 to 3.9		9.0	Yes	Max 9.6
A27 (E)	Arm 2 (entry width)			Between 1.0 and 1.2 times entry	12.3	Yes	Max 15.36
Grinstead Lane	Arm 3 (entry width)			width, excluding any overrun area	12.0	Yes	Max 13.92
A27 (W)	Arm 4 (entry width)				12.0	Yes	Max 15.36
Central island diameter		I	3.7	I value ≤4m	39.5	Yes	Largest dimension
Central overrun area		b	3.8 to 3.9	To provide sufficient entry deflection for vehicles while still allowing large vehicles to circulate	N/A	N/A	No central overrun area provided, as per existing situation
Splitter island width	Arm 1	s	8.0 onwards		8.9	Yes	Measured at widest point
	Arm 2			s value absolute minimum 1.2m,	7.8	Yes	Measured at widest point
	Arm 3			preferably 2.5m	7.9	Yes	Measured at widest point
	Arm 4				5.6	Yes	Measured at widest point
Entry width	Arm 1	e	3.11 to 3.15	e value 4.0m - 10.5m parameter range	8.0	Yes	
	Arm 2			(practical limits for single carriageway	12.8	Yes	Dual Lane approach maximum is 15m
	Arm 3			approach)	11.6	No	However, permitted roundabout design (NMF) has 11.2m
	Arm 4				12.8	Yes	Dual Lane approach maximum is 15m
Approach half width	Arm 1	v	3.16 and Table B.2		5.4	Yes	
	Arm 2			v value 2.0m - 7.3m parameter range	7.3	Yes	
	Arm 3			(practical limits)	5.5	Yes	
	Arm 4				5.0	Yes	
Entry lane alignment	Arm 1	L	3.18	Splitter island kerb (arc) must be		Yes	Curve is tangential
	Arm 2			tangential to central island when		Yes	Curve is tangential
	Arm 3			extended forward from give way line		Yes	Curve is tangential
	Arm 4					Yes	Curve is tangential
Flare length	Arm 1	l'	3.17		22.4	Yes	
	Arm 2			single lane entries should be slightly	22.3	Yes	
	Arm 3			flared to accommodate HGV's	15.0	Yes	
	Arm 4				16.4	Yes	
Entry angle	Arm 1	Φ	3.18		46.0	Yes	
	Arm 2			Φ value between 20 to 60 degrees	34.0	Yes	
	Arm 3				44.0	Yes	
	Arm 4				51.0	Yes	
Entry kerb radius	Arm 1	r	3.19		25.0	Yes	
	Arm 2			r value between 10m to 100m	25.0	Yes	
	Arm 3				20.0	Yes	
	Arm 4				40.0	Yes	
Entry path radius	Arm 1	length of a(ent)	3.20 to 3.26		79.0	Yes	
	Arm 2			a value ≤ 100m for 25m length	85.4	Yes	
	Arm 3				98.5	Yes	Permitted roundabout design (NMF) has this value over 100m
	Arm 4				52.2	Yes	
Exit width	Arm 1	ew	3.28		7.5	Yes	
	Arm 2			ew values similar to entry width	8.0	Yes	
	Arm 3				6.5	Yes	
	Arm 4				7.2	Yes	
Exit kerb radius	Arm 1	a(exit)	3.29		12.5	Yes	Same as Permitted roundabout design (NMF)
	Arm 2			a values between 15m to 100m	61.3	Yes	
	Arm 3				61.4	Yes	
	Arm 4				20.0	Yes	
Visibility on Approach	Arm 1	va	3.37		90.0	Yes	In accordance with Annex B of "Design & Maintenance Guidance for Local Authority Roads - Provision of Road Restraint Systems on Local Authority Roads", the curve design speeds on these approaches are such that the forward visibility requirements are lower than the achieved. As discussed, appropriate visibility screening measures could be installed following further discussions with WSCC and National Highways.
	Arm 2			To be in accordance with CD109	120.0	Yes	
	Arm 3				120.0	Yes	
	Arm 4				79.8	Yes	
Visibility on Entry	Arm 1	ve	3.43		50.0	Yes	Assume no construction on central island
	Arm 2			Visibility distance of 40m for ICD 40m	50.0	Yes	Assume no construction on central island
	Arm 3			to 60m rounabouts	50.0	Yes	Assume no construction on central island
	Arm 4				50.0	Yes	Assume no construction on central island

APPENDIX 23.4
DMRB CD 116
COOMPLIANCE CHECKS

A27 Grinstead Lane Junction

	Approach Arm	Manor Rd	A27 (E)	Grinstead Ln	A27 (W)	Notes
For Curve Design Speed	**R - Curve Radius (m)**	57	20	20	40	*Refer to Plans*
	e - Super-elevation	0	0	0	0	*Assumed to be 0*
	f - Side friction factor	0.15	0.15	0.15	0.15	*55 - 80km/h - Refer to Annex B table*
	Vdesign (km/h)	32.952238	19.519221	19.5192213	27.604347	*Curve Design Formula - Square-root of 127 x R x (e x f)*
For SSD Calcs	**v - Speed of vehicle (m/s)**	9.1534068	5.4220103	5.422010253	7.6678804	*Vdesign (km/h) x 0.621371*
	t - driver perception-reaction time (m/s)	2	2	2	2	*(MfS 2)*
	d - deceleration rate (m/s)	2.4525	2.4525	2.4525	2.4525	*0.25 x 9.81 (MfS 2)*
	a - longitudinal gradient	0	0	0	0	*Assumed to be 0*
	SSD requirement	35.388334	46.893557	46.89355735	87.434835	*SSD = vt + v^2/(2(d+0.1a))*
	SSD (rounded)	35	47	47	87	*Rounded*

Annex B (Extract)

The Curve design speed can be calculated from the road standards using the following formula:

$$V_{design} = \sqrt{127.R.(e+f)}$$

R = curve radius in metres
e = super-elevation or crossfall in metres per metre
f = side friction factor
and the resultant V_{design} is in km/h.

Several studies aimed at determining the maximum side-friction factors (f) that are comfortable for drivers have been conducted. Some of the results from these studies (AASHTO, 1994) are tabulated below and these results can be used to select the appropriate f value to calculate the Curve design speed.

SPEED (KM/H)	COMFORTABLE SIDE-FRICTION FACTOR
40	0.21
50	0.18
55-80	0.15
> 110	0.10

The side-friction factors that are employed in the design of horizontal curves should accommodate the safety and comfort of the intended users.[18]. The side-friction factor is associated to the SCRIM value at a particular site

MfS 2 - SSD Formula

10.1.5 The basic formula for calculating SSD (in metres) is:

$SSD = vt + v^2/2(d+0.1a)$
where:
v = speed (m/s)
t = driver perception-reaction time (seconds)
d = deceleration (m/s^2)
a = longitudinal gradient (%)
(+ for upgrades and - for downgrades)

APPENDIX 24.0

BUDGET COST ESTIMATES

24.1 Junction 1 – Washington Roundabout
24.2 Junction 2 – A283 / Water Lane Crossroads
24.3 Junction 4 – A283 / Clays Hill Roundabout
24.4 Junction 8 – A283 / A27 Slips Roundabout
24.5 Junction 9 – A283 / Upper Shoreham Road Roundabout
24.6 Junction 10 – A283 / A259 Roundabout
24.7 Junction 12 – Lancing Manor Roundabout – Committed
24.8 Junction 12 – Lancing Manor Roundabout – ADL Proposed

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham Washington Roundabout**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
Washington Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-03B**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	3000.00	3,000.00
1.02	REMOVE CONCRETE KERBS	444.00	m	15.00	6,660.00
1.03	REMOVE EDGING KERB	92.00	m	3.00	276.00
1.04	REMOVE LIGHTING COLUMNS	4.00	ITEM	750.00	3,000.00
1.05	REMOVE GULLIES	3.00	No	450.00	1,350.00
1.06	REMOVE TRAFFIC SIGNS	10.00	No	350.00	3,500.00
1.07	REMOVE BOLLARDS	0.00	No	250.00	0.00
					17,786.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	605.00	Cum	22.00	13,310.00
2.02	EXCAVATE HARD AND DISPOSE	24.00	Cum	55.00	1,320.00
2.03	DISPOSE U/S	629.00	Cum	50.00	31,450.00
2.04	FORMATION AND SUB-FORMATION	3000.00	Sqm	1.20	3,600.00
2.05	PLANE CARRIAGEWAY (40mm)	1398.00	Sqm	3.50	4,893.00
2.06	PLANE FOOTWAY (20mm)	0.00	Sqm	2.50	0.00
2.07	IMPORT CAPPING AND COMPACT	232.00	Cum	18.00	4,176.00
					58,749.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	175.00	Cum	25.00	4,375.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	775.00	Sqm	22.00	17,050.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	775.00	Sqm	24.00	18,600.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	4915.00	Sqm	18.00	88,470.00
3.05	CONCRETE KERBING	406.00	m	20.00	8,120.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	99.00	m	12.00	1,188.00
3.08	SUB BASE - FOOTWAY(150mm)	30.00	Cum	18.00	540.00
3.09	FOOTWAY SURFACE COURSE (20mm)	196.00	Sqm	8.00	1,568.00
3.10	FOOTWAY BINDER COURSE (50mm)	196.00	Sqm	11.00	2,156.00
3.11	CONCRETE PAVING (60mm)	15.00	Sqm	40.00	600.00
3.12	TACTILE PAVING	20.00	Sqm	30.00	600.00
					143,267.00

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	5.00	No	600.00	3,000.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00

APPENDIX 24.1
JUNCTION 1 - WASHINGTON ROUNDABOUT

4.03	GULLY CONNECTIONS	5.00	No	500.00	2,500.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					5,500.00

5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	5000.00	5000.00
5.02	BOLLARDS	0.00	No	600.00	0.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	10.00	No	750.00	7500.00
					0.00
					12,500.00

7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	7500.00	7,500.00
7.02	STREET LIGHTING COLUMN	4.00	No.	1800.00	7,200.00
7.03	LIGHTING DUCTING	60.00	m	20.00	1,200.00
7.04	TOPSOIL & SEED	395.00	Sqm	12.50	4,937.50
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	2000.00	2,000.00
					22,837.50

	SUMMARY	
	Preliminaries 15%	£35,670.30
1.0	Site Clearance	£17,786.00
2.0	Earthworks	£58,749.00
3.0	Pavement	£143,267.00
4.0	Drainage	£5,500.00
5.0	Signs and Markings	£12,500.00
6.0	Other	£22,837.50
		£296,310

CONTINGENCY 10%	£29,631
CIVILS TOTAL	£325,941

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE EXISTING ROAD, WHERE RETAINED, WILL BE RESURFACED AND THE WHOLE GYRATORY HAS BEEN RESURFACED

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham Water Lane Crossroads**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
Water Lane Crossroads	**DATE:**	**11.11.21**
	DRG:	**5201-GP-04A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	1000.00	1,000.00
1.02	REMOVE CONCRETE KERBS	11.00	m	15.00	165.00
1.03	REMOVE EDGING KERB	0.00	m	3.00	0.00
1.04	REMOVE LIGHTING COLUMNS	0.00	ITEM	750.00	0.00
1.05	REMOVE GULLIES	0.00	No	450.00	0.00
1.06	REMOVE TRAFFIC SIGNS	1.00	No	350.00	350.00
1.07	REMOVE BOLLARDS	0.00	No	250.00	0.00
					1,515.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	10.00	Cum	22.00	220.00
2.02	EXCAVATE HARD AND DISPOSE	10.00	Cum	55.00	550.00
2.03	DISPOSE U/S	10.00	Cum	50.00	500.00
2.04	FORMATION AND SUB-FORMATION	15.00	Sqm	1.20	18.00
2.05	PLANE CARRIAGEWAY (40mm)	388.00	Sqm	3.50	1,358.00
2.06	PLANE FOOTWAY (20mm)	0.00	Sqm	2.50	0.00
2.07	IMPORT CAPPING AND COMPACT	5.00	Cum	18.00	90.00
					2,736.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	4.00	Cum	25.00	100.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	15.00	Sqm	22.00	330.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	15.00	Sqm	24.00	360.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	403.00	Sqm	18.00	7,254.00
3.05	CONCRETE KERBING	24.00	m	20.00	480.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	0.00	m	12.00	0.00
3.08	SUB BASE - FOOTWAY(150mm)	0.00	Cum	18.00	0.00
3.09	FOOTWAY SURFACE COURSE (20mm)	0.00	Sqm	8.00	0.00
3.10	FOOTWAY BINDER COURSE (50mm)	0.00	Sqm	11.00	0.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	0.00	Sqm	30.00	0.00
					8,524.00

APPENDIX 24.2
JUNCTION 2 - A283/WATER LANE CROSSROADS

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	0.00	No	600.00	0.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	0.00	No	500.00	0.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					0.00
5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	1000.00	1000.00
5.02	BOLLARDS	0.00	No	600.00	0.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	1.00	No	750.00	750.00
					0.00
					1,750.00
7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	2000.00	2,000.00
7.02	STREET LIGHTING COLUMN	0.00	No.	1800.00	0.00
7.03	LIGHTING DUCTING	0.00	m	20.00	0.00
7.04	TOPSOIL & SEED	0.00	Sqm	12.50	0.00
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	0.00	No	2000.00	0.00
					2,000.00

	SUMMARY	
	Preliminaries 15%	£2,178.75
1.0	Site Clearance	£1,515.00
2.0	Earthworks	£2,736.00
3.0	Pavement	£8,524.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£1,750.00
6.0	Other	£2,000.00
		£18,704

CONTINGENCY 10%	£1,870
CIVILS TOTAL	£20,574

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE JUNCTION WILL BE RESURFACED

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham Clay Hill Roundabout**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
Clay Hill Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-05A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	2000.00	2,000.00
1.02	REMOVE CONCRETE KERBS	78.00	m	15.00	1,170.00
1.03	REMOVE EDGING KERB	8.00	m	3.00	24.00
1.04	REMOVE LIGHTING COLUMNS	2.00	ITEM	750.00	1,500.00
1.05	REMOVE GULLIES	2.00	No	450.00	900.00
1.06	REMOVE TRAFFIC SIGNS	3.00	No	350.00	1,050.00
1.07	REMOVE BOLLARDS	0.00	No	250.00	0.00
					6,644.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	57.00	Cum	22.00	1,254.00
2.02	EXCAVATE HARD AND DISPOSE	5.00	Cum	55.00	275.00
2.03	DISPOSE U/S	62.00	Cum	50.00	3,100.00
2.04	FORMATION AND SUB-FORMATION	85.00	Sqm	1.20	102.00
2.05	PLANE CARRIAGEWAY (40mm)	332.00	Sqm	3.50	1,162.00
2.06	PLANE FOOTWAY (20mm)	30.00	Sqm	2.50	75.00
2.07	IMPORT CAPPING AND COMPACT	20.00	Cum	18.00	360.00
					6,328.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	17.00	Cum	25.00	425.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	76.00	Sqm	22.00	1,672.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	76.00	Sqm	24.00	1,824.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	408.00	Sqm	18.00	7,344.00
3.05	CONCRETE KERBING	82.00	m	20.00	1,640.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	12.00	m	12.00	144.00
3.08	SUB BASE - FOOTWAY(150mm)	3.50	Cum	18.00	63.00
3.09	FOOTWAY SURFACE COURSE (20mm)	51.00	Sqm	8.00	408.00
3.10	FOOTWAY BINDER COURSE (50mm)	21.00	Sqm	11.00	231.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	8.00	Sqm	30.00	240.00
					13,991.00

APPENDIX 24.3
JUNCTION 4 - A283/CLAYS HILL ROUNDABOUT

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	2.00	No	600.00	1,200.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	2.00	No	500.00	1,000.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					2,200.00
5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	1500.00	1500.00
5.02	BOLLARDS	0.00	No	600.00	0.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	2.00	No	750.00	1500.00
5.04	ADS and POSTs	1.00	No	1250.00	1250.00
					4,250.00
7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	3500.00	3,500.00
7.02	STREET LIGHTING COLUMN	0.00	No.	1800.00	0.00
7.03	LIGHTING DUCTING	0.00	m	20.00	0.00
7.04	TOPSOIL & SEED	0.00	Sqm	12.50	0.00
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	2000.00	2,000.00
					5,500.00

	SUMMARY	
	Preliminaries 15%	£5,011.95
1.0	Site Clearance	£6,644.00
2.0	Earthworks	£6,328.00
3.0	Pavement	£13,991.00
4.0	Drainage	£2,200.00
5.0	Signs and Markings	£4,250.00
6.0	Other	£5,500.00
		£43,925

CONTINGENCY 10%	£4,392
CIVILS TOTAL	£48,317

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE APPROACH LANE WILL BE RESURFACED

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham**
		A27 Slip Road Roundabout
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A27 Slip Road Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-07A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	5000.00	5,000.00
1.02	REMOVE CONCRETE KERBS	569.00	m	15.00	8,535.00
1.03	REMOVE EDGING KERB	0.00	m	3.00	0.00
1.04	REMOVE LIGHTING COLUMNS	8.00	ITEM	750.00	6,000.00
1.05	REMOVE GULLIES	0.00	No	450.00	0.00
1.06	REMOVE TRAFFIC SIGNS	12.00	No	350.00	4,200.00
1.07	REMOVE VEHICLE RESTRAIN BARRIER	132.00	m	60.00	7,920.00
					31,655.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	1175.00	Cum	22.00	25,850.00
2.02	EXCAVATE HARD AND DISPOSE	0.00	Cum	55.00	0.00
2.03	DISPOSE U/S	1175.00	Cum	50.00	58,750.00
2.04	FORMATION AND SUB-FORMATION	1600.00	Sqm	1.20	1,920.00
2.05	PLANE CARRIAGEWAY (40mm)	4938.00	Sqm	3.50	17,283.00
2.06	PLANE FOOTWAY (20mm)	0.00	Sqm	2.50	0.00
2.07	IMPORT CAPPING AND COMPACT	470.00	Cum	18.00	8,460.00
					112,263.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	352.00	Cum	25.00	8,800.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	1565.00	Sqm	22.00	34,430.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	1565.00	Sqm	24.00	37,560.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	6503.00	Sqm	18.00	117,054.00
3.05	CONCRETE KERBING	505.00	m	20.00	10,100.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	0.00	m	12.00	0.00
3.08	SUB BASE - FOOTWAY(150mm)	0.00	Cum	18.00	0.00
3.09	FOOTWAY SURFACE COURSE (20mm)	0.00	Sqm	8.00	0.00
3.10	FOOTWAY BINDER COURSE (50mm)	0.00	Sqm	11.00	0.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	0.00	Sqm	30.00	0.00
					207,944.00

APPENDIX 24.4
JUNCTION 8 - A283/A27 SLIPS ROUNDABOUT

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	0.00	No	600.00	0.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	0.00	No	500.00	0.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					0.00
5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	4500.00	4500.00
5.02	BOLLARDS	0.00	No	600.00	0.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	12.00	No	750.00	9000.00
5.04	ADS and POSTs	0.00	No	1250.00	0.00
					13,500.00
7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	10000.00	10,000.00
7.02	STREET LIGHTING COLUMN	8.00	No.	1800.00	14,400.00
7.03	LIGHTING DUCTING	80.00	m	20.00	1,600.00
7.04	TOPSOIL & SEED	509.00	Sqm	12.50	6,362.50
7.05	VEHICLE RESTRAINT BARRIER	1.00	ITEM	25000.00	25,000.00
7.06	ELECTRICAL CONNECTION	0.00	No	2000.00	0.00
					57,362.50

	SUMMARY	
	Preliminaries 15%	£54,804.30
1.0	Site Clearance	£31,655.00
2.0	Earthworks	£112,263.00
3.0	Pavement	£207,944.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£13,500.00
6.0	Other	£57,362.50
		£477,529

CONTINGENCY 10%	£47,753
CIVILS TOTAL	£525,282

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

THE ESTIMATE INCLUDES THE RESURFACING OF ALL APPROACH ROADS AND THE WHOLE GYRATORY

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham A283/Upper Shoreham Road**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A283/Upper Shoreham Road Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-08A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	1000.00	1,000.00
1.02	REMOVE CONCRETE KERBS	115.00	m	15.00	1,725.00
1.03	REMOVE EDGING KERB	49.00	m	3.00	147.00
1.04	REMOVE LIGHTING COLUMNS	2.00	ITEM	750.00	1,500.00
1.05	REMOVE GULLIES	4.00	No	450.00	1,800.00
1.06	REMOVE TRAFFIC SIGNS	3.00	No	350.00	1,050.00
1.07	REMOVE BOLLARDS	2.00	No	350.00	700.00
					7,922.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	64.00	Cum	22.00	1,408.00
2.02	EXCAVATE HARD AND DISPOSE	20.00	Cum	55.00	1,100.00
2.03	DISPOSE U/S	84.00	Cum	50.00	4,200.00
2.04	FORMATION AND SUB-FORMATION	100.00	Sqm	1.20	120.00
2.05	PLANE CARRIAGEWAY (40mm)	860.00	Sqm	3.50	3,010.00
2.06	PLANE FOOTWAY (20mm)	63.00	Sqm	2.50	157.50
2.07	IMPORT CAPPING AND COMPACT	24.00	Cum	18.00	432.00
					10,427.50
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	18.00	Cum	25.00	450.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	81.00	Sqm	22.00	1,782.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	81.00	Sqm	24.00	1,944.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	941.00	Sqm	18.00	16,938.00
3.05	CONCRETE KERBING	106.00	m	20.00	2,120.00
3.06	CHANNEL KERB	15.00	m	16.00	240.00
3.07	EDGING	49.00	m	12.00	588.00
3.08	SUB BASE - FOOTWAY(150mm)	14.00	Cum	18.00	252.00
3.09	FOOTWAY SURFACE COURSE (20mm)	156.00	Sqm	8.00	1,248.00
3.10	FOOTWAY BINDER COURSE (50mm)	93.00	Sqm	11.00	1,023.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	25.00	Sqm	30.00	750.00
					27,335.00

APPENDIX 24.5
JUNCTION 9 - A283/UPPER SHOREHAM ROAD ROUNDABOUT

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	4.00	No	600.00	2,400.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	4.00	No	500.00	2,000.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					4,400.00
5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	2500.00	2500.00
5.02	BOLLARDS	2.00	No	600.00	1200.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	3.00	No	750.00	2250.00
5.04	ADS and POSTs	0.00	No	1250.00	0.00
					5,950.00
7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	4000.00	4,000.00
7.02	STREET LIGHTING COLUMN	2.00	No.	1800.00	3,600.00
7.03	LIGHTING DUCTING	25.00	m	20.00	500.00
7.04	TOPSOIL & SEED	0.00	Sqm	12.50	0.00
7.05	VEHICLE RESTRAINT BARRIER	0.00	ITEM	25000.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	1500.00	1,500.00
					9,600.00

	SUMMARY	
	Preliminaries 15%	£8,405.18
1.0	Site Clearance	£7,922.00
2.0	Earthworks	£10,427.50
3.0	Pavement	£27,335.00
4.0	Drainage	£4,400.00
5.0	Signs and Markings	£5,950.00
6.0	Other	£9,600.00
		£74,040

CONTINGENCY 10%	£7,404
CIVILS TOTAL	£81,444

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

THE ESTIMATE INCLUDES THE RESURFACING OF ALL APPROACH ROADS AND THE WHOLE GYRATORY

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham**
		A283/A259 Roundabout
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A283/A259 Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-09A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	1000.00	1,000.00
1.02	REMOVE CONCRETE KERBS	45.00	m	15.00	675.00
1.03	REMOVE EDGING KERB	0.00	m	3.00	0.00
1.04	REMOVE LIGHTING COLUMNS	0.00	ITEM	750.00	0.00
1.05	REMOVE PLANTERS	3.00	No	100.00	300.00
1.06	REMOVE TRAFFIC SIGNS	12.00	No	350.00	4,200.00
1.07	REMOVE BOLLARDS	2.00	No	350.00	700.00
					6,875.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	37.00	Cum	22.00	814.00
2.02	EXCAVATE HARD AND DISPOSE	20.00	Cum	55.00	1,100.00
2.03	DISPOSE U/S	57.00	Cum	50.00	2,850.00
2.04	FORMATION AND SUB-FORMATION	100.00	Sqm	1.20	120.00
2.05	PLANE CARRIAGEWAY (40mm)	610.00	Sqm	3.50	2,135.00
2.06	PLANE FOOTWAY (20mm)	0.00	Sqm	2.50	0.00
2.07	IMPORT CAPPING AND COMPACT	22.00	Cum	18.00	396.00
					7,415.00
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	20.00	Cum	25.00	500.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	76.00	Sqm	22.00	1,672.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	76.00	Sqm	24.00	1,824.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	686.00	Sqm	18.00	12,348.00
3.05	CONCRETE KERBING	50.00	m	20.00	1,000.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	0.00	m	12.00	0.00
3.08	SUB BASE - FOOTWAY(150mm)	0.00	Cum	18.00	0.00
3.09	FOOTWAY SURFACE COURSE (20mm)	0.00	Sqm	8.00	0.00
3.10	FOOTWAY BINDER COURSE (50mm)	0.00	Sqm	11.00	0.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	0.00	Sqm	30.00	0.00
					17,344.00

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				
4.01	GULLY UNITS	0.00	No	600.00	0.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00

APPENDIX 24.6
JUNCTION 10 - A283/A259 ROUNDABOUT

4.03	GULLY CONNECTIONS	0.00	No	500.00	0.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					0.00

5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	2500.00	2500.00
5.02	BOLLARDS	2.00	No	600.00	1200.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	6.00	No	750.00	4500.00
5.04	ADS and POSTs	2.00	No	1250.00	2500.00
					10,700.00

7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	4000.00	4,000.00
7.02	STREET LIGHTING COLUMN	0.00	No.	1800.00	0.00
7.03	LIGHTING DUCTING	0.00	m	20.00	0.00
7.04	TOPSOIL & SEED	0.00	Sqm	12.50	0.00
7.05	VEHICLE RESTRAINT BARRIER	0.00	ITEM	25000.00	0.00
7.06	ELECTRICAL CONNECTION	0.00	No	1500.00	0.00
					4,000.00

	SUMMARY	
	Preliminaries 15%	£6,350.10
1.0	Site Clearance	£6,875.00
2.0	Earthworks	£7,415.00
3.0	Pavement	£17,344.00
4.0	Drainage	£0.00
5.0	Signs and Markings	£10,700.00
6.0	Other	£4,000.00
		£52,684

CONTINGENCY 10%	£5,268
CIVILS TOTAL	£57,953

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

THE ESTIMATE INCLUDES THE RESURFACING OF THE WHOLE GYRATORY

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham A27 / Grinstead Lane Roundabout**
BUDGET COST ESTIMATE FOR		
OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A27 / Grinstead Lane Roundabout	**DATE:**	**11.11.21**
	DRG:	**5201-GP-10A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	4000.00	4,000.00
1.02	REMOVE CONCRETE KERBS	272.00	m	15.00	4,080.00
1.03	REMOVE EDGING KERB	216.00	m	3.00	648.00
1.04	REMOVE GUARD RAILINGS	63.00	m	60.00	3,780.00
1.05	REMOVE LIGHTING COLUMNS	10.00	ITEM	750.00	7,500.00
1.06	REMOVE GULLIES	5.00	No	450.00	2,250.00
1.07	REMOVE TRAFFIC SIGNS	8.00	No	350.00	2,800.00
1.08	REMOVE REFLECTIVE BOLLARDS	15.00	Nn	175.00	2,625.00
1.09	REMOVE BOLLARDS	1.00	No	250.00	250.00
					27,933.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	235.00	Cum	22.00	5,170.00
2.02	EXCAVATE HARD AND DISPOSE	75.00	Cum	55.00	4,125.00
2.03	DISPOSE U/S	310.00	Cum	50.00	15,500.00
2.04	FORMATION AND SUB-FORMATION	787.00	Sqm	1.20	944.40
2.05	PLANE CARRIAGEWAY (40mm)	2896.00	Sqm	3.50	10,136.00
2.06	PLANE FOOTWAY (20mm)	200.00	Sqm	2.50	500.00
2.07	IMPORT CAPPING AND COMPACT	90.00	Cum	18.00	1,620.00
					37,995.40
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	68.00	Cum	25.00	1,700.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	303.00	Sqm	22.00	6,666.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	303.00	Sqm	24.00	7,272.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	3199.00	Sqm	18.00	57,582.00
3.05	CONCRETE KERBING	286.00	m	20.00	5,720.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	225.00	m	12.00	2,700.00
3.08	SUB BASE - FOOTWAY(150mm)	60.00	Cum	18.00	1,080.00
3.09	FOOTWAY SURFACE COURSE (20mm)	556.00	Sqm	8.00	4,448.00
3.10	FOOTWAY BINDER COURSE (50mm)	336.00	Sqm	11.00	3,696.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	30.00	Sqm	30.00	900.00
					91,764.00

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				

APPENDIX 24.7
JUNCTION 12 - LANCING MANOR ROUNDABOUT - COMMITTED

4.01	GULLY UNITS	5.00	No	600.00	3,000.00
4.02	150mm SW PIPE	0.00	m	70.00	0.00
4.03	GULLY CONNECTIONS	5.00	No	500.00	2,500.00
4.05	MANHOLE	0.00	No	1500.00	0.00
					5,500.00

5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	3500.00	3500.00
5.02	BOLLARDS	1.00	No	600.00	600.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	8.00	No	750.00	6000.00
5.04	ADS and POSTs	0.00	No	1250.00	0.00
					10,100.00

7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	4500.00	4,500.00
7.02	STREET LIGHTING COLUMN	10.00	No.	1800.00	18,000.00
7.03	LIGHTING DUCTING	100.00	m	20.00	2,000.00
7.04	TOPSOIL & SEED	100.00	Sqm	12.50	1,250.00
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	7500.00	7,500.00
					33,250.00

	SUMMARY	
	Preliminaries 15%	£25,993.86
1.0	Site Clearance	£27,933.00
2.0	Earthworks	£37,995.40
3.0	Pavement	£91,764.00
4.0	Drainage	£5,500.00
5.0	Signs and Markings	£10,100.00
6.0	Other	£33,250.00
		£232,536

CONTINGENCY 10%	£23,254
CIVILS TOTAL	£255,790

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE GYRATORY AND THE APPROACH LANES WILL BE RESURFACED

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS

ADL TRAFFIC &HIGHWAY ENGINEERING LTD

	PROJECT:	**Shoreham A27 / Grinstead Lane Roundabout 60m ICD**
BUDGET COST ESTIMATE FOR OFF-SITE HIGHWAY WORKS	**JOB No:**	**5201**
	CALCS BY:	**C.Turner**
A27 / Grinstead Lane Roundabout 60m ICD	**DATE:**	**11.11.21**
	DRG:	**5201-GP-10A**

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
1.0	**SITE CLEARANCE**				
1.01	GENERAL SITE CLEARANCE	1.00	ITEM	8000.00	8,000.00
1.02	REMOVE CONCRETE KERBS	675.00	m	15.00	10,125.00
1.03	REMOVE EDGING KERB	298.00	m	3.00	894.00
1.04	REMOVE GUARD RAILINGS	189.00	m	60.00	11,340.00
1.05	REMOVE LIGHTING COLUMNS	10.00	ITEM	750.00	7,500.00
1.06	REMOVE GULLIES	11.00	No	450.00	4,950.00
1.07	REMOVE TRAFFIC SIGNS	24.00	No	350.00	8,400.00
1.08	REMOVE REFLECTIVE BOLLARDS	15.00	Nn	175.00	2,625.00
1.09	REMOVE BOLLARDS	5.00	No	250.00	1,250.00
					55,084.00
2.0	**EARTHWORKS**				
2.01	EXCAVATE U/S (or Suitable)	1231.00	Cum	22.00	27,082.00
2.02	EXCAVATE HARD AND DISPOSE	456.00	Cum	55.00	25,080.00
2.03	DISPOSE U/S	1687.00	Cum	50.00	84,350.00
2.04	FORMATION AND SUB-FORMATION	3214.00	Sqm	1.20	3,856.80
2.05	PLANE CARRIAGEWAY (40mm)	2650.00	Sqm	3.50	9,275.00
2.06	PLANE FOOTWAY (20mm)	300.00	Sqm	2.50	750.00
2.07	IMPORT CAPPING AND COMPACT	450.00	Cum	18.00	8,100.00
					158,493.80
3.0	**PAVEMENT**				
3.01	SUB BASE-CARRIAGEWAY(225mm)	336.00	Cum	25.00	8,400.00
3.02	BASE COURSE-CARRIAGEWAY(150mm)	1497.00	Sqm	22.00	32,934.00
3.03	BINDER COURSE-CARRIAGEWAY (60mm)	1497.00	Sqm	24.00	35,928.00
3.04	SURFACE COURSE-CARRIAGEWAY (40mm)	4154.00	Sqm	18.00	74,772.00
3.05	CONCRETE KERBING	604.00	m	20.00	12,080.00
3.06	CHANNEL KERB	0.00	m	16.00	0.00
3.07	EDGING	338.00	m	12.00	4,056.00
3.08	SUB BASE - FOOTWAY(150mm)	74.00	Cum	18.00	1,332.00
3.09	FOOTWAY SURFACE COURSE (20mm)	790.00	Sqm	8.00	6,320.00
3.10	FOOTWAY BINDER COURSE (50mm)	590.00	Sqm	11.00	6,490.00
3.11	CONCRETE PAVING (60mm)	0.00	Sqm	40.00	0.00
3.12	TACTILE PAVING	50.00	Sqm	30.00	1,500.00
					183,812.00

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	£
4.0	**DRAINAGE**				

APPENDIX 24.8
JUNCTION 12 - LANCING MANOR ROUNDABOUT - ADL PROPOSED

4.01	GULLY UNITS	12.00	No	600.00	7,200.00
4.02	150mm SW PIPE	50.00	m	70.00	3,500.00
4.03	GULLY CONNECTIONS	12.00	No	500.00	6,000.00
4.05	MANHOLE	1.00	No	1500.00	1,500.00
					18,200.00

5.0	**SIGNS AND MARKINGS**				
5.01	MARKINGS	1.00	Item	5000.00	5000.00
5.02	BOLLARDS	5.00	No	600.00	3000.00
5.03	SIGN PLATES	0.00	No	200.00	0.00
5.04	ROADS SIGNS and POSTS	24.00	No	750.00	18000.00
5.04	ADS and POSTs	0.00	No	1250.00	0.00
					26,000.00

7.0	**OTHER**				
7.01	TRAFFIC MANAGEMENT	1.00	No	7000.00	7,000.00
7.02	STREET LIGHTING COLUMN	13.00	No.	1800.00	23,400.00
7.03	LIGHTING DUCTING	250.00	m	20.00	5,000.00
7.04	TOPSOIL & SEED	806.00	Sqm	12.50	10,075.00
7.05	POST & RAIL FENCE	0.00	m	150.00	0.00
7.06	ELECTRICAL CONNECTION	1.00	No	10000.00	10,000.00
					55,475.00

	SUMMARY	
	Preliminaries 15%	£66,238.47
1.0	Site Clearance	£55,084.00
2.0	Earthworks	£158,493.80
3.0	Pavement	£183,812.00
4.0	Drainage	£18,200.00
5.0	Signs and Markings	£26,000.00
6.0	Other	£55,475.00
		£563,303

CONTINGENCY 10%	£56,330
CIVILS TOTAL	£619,634

GENERAL NOTES

THIS IS A BUDGET ESTIMATE ONLY.

BUDGET ESTIMATE EXCLUDES DESIGN AND COUNCIL FEES

BUDGET ESTIMATE EXCLUDES ANY UNDERGROUND SERVICE DIVERSION COSTS

WE HAVE ASSUMED THAT THE EXISTING GYRATORY AND THE APPROACH LANES WILL BE RESURFACED

THIS BUDGET DOES NOT INCLUDE THE COST OF ANY THIRD PARTY LAND PURCHASE REQUIRED TO DELIVER THE DESIGN

ADL ARE NOT QUALIFIED QUANTITY SURVEYORS AND THE ABOVE ESTIMATE SHOULD NOT BE USED FOR ANY CONTRACT DOCUMENTS