



Shoreham Cement Works, A283 Steyning Road,  
Upper Beeding, BN44 3TX

## TRANSPORT ASSESSMENT

for Emerging South Downs National Park Authority Local Plan  
on behalf of SDNPA

2025/8905/TA01

December 2025

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## Transport Assessment

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### 1 EXECUTIVE SUMMARY

1.1.1 This Transport Assessment has been prepared on behalf of the South Downs National Parks Authority (SDNPA) in assessing the delivery of Policy Strategic Site Policy SD56: Shoreham Cement Works.

1.1.2 The Shoreham Cement Works site spans 44 hectares, divided by the A283 Steyning Road. It includes a former cement works, chalk quarry, and recycling operations, all situated within the South Downs National Park.

1.1.3 The planned allocation of the former Shoreham Cement Works site as part of the emerging South Downs Local Plan which is due to go to a second round of formal public consultation in May/June 2026. The Local Plan Review will consider and decide how and where development will take place in the National Park right up until 2042.

1.1.4 In preparing this Transport Study and in implementing the key principles of sustainable movement and access within and to the site have been considered in the context of the NPPF, December 2024, paragraph 118 which states:

*“All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.”*

1.1.5 The vision-led approach to achieving sustainable development within the site accords to DfT Circular 01/2022, which states in paragraph 12:

*“New development should be facilitating a reduction in the need to travel by private car and focused on locations that are or can be made sustainable. In this regard, recent research on the location of development found that walking times between new homes and a range of key amenities regularly exceeded 30 minutes, reinforcing car dependency.*

*Developments in the right places and served by the right sustainable infrastructure delivered alongside or ahead of occupancy must be a key consideration when planning for growth in all local authority areas.”*

1.1.6 The site is accessed via two junctions onto the A283: a left-in/left-out northern access, which serves as the primary access, and a restricted southern access. The two land parcels are linked by an underpass tunnel beneath the A283.

1.1.7 As part of a highway safety review of the A283, collision clusters, as defined by the Adur Local Plan, were identified at the A283/A27 slips and the Washington Roundabout, where collisions were primarily attributed to driver error, including misjudgement and careless driving. A smaller cluster was also noted at the Clays Hill roundabout, again largely associated with driver behaviour rather than road layout.

1.1.8 Collision activity near the site accesses was limited, with only isolated incidents recorded. An increase in collisions at the Washington Roundabout has been identified, and it is understood that WSCC is progressing a safety improvement scheme at this location.

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- 1.1.9 A review of local transport infrastructure shows the site has reasonable accessibility by walking, cycling, and public transport, consistent with national and local policy objectives. A range of local amenities are available within 2 km walking and 6–8 km cycling distance, including schools, shops, healthcare, and services in Upper Beeding, Steyping, Lancing, and Shoreham.
- 1.1.10 The site benefits from extensive pedestrian and cycle infrastructure, including the Downs Link, South Downs Way, and surrounding public rights of way, although some routes have variable surfacing and limited footway provision along the A283. The western boundary directly abuts the Downs Link, providing a key traffic-free route.
- 1.1.11 Bus stops are located adjacent to the northern site access on the A283, serving multiple routes linking the site to Shoreham, Lancing, Worthing, Hove, and Steyping, though service frequencies are generally hourly. Shoreham-by-Sea railway station, approximately 4.4 km south, provides regular regional and London rail services. Overall, the site offers opportunities to support sustainable travel and reduce reliance on the private car.
- 1.1.12 An Active Travel Zone (ATZ) Assessment has been undertaken to review walking, cycling and equestrian connections. The assessment focuses on the site underpass, Downs Link, South Downs Way, and surrounding public rights of way.
- 1.1.13 The underpass currently provides a constrained pedestrian environment, and options to widen the footway or provide a shared pedestrian/cycle route have been identified, subject to further feasibility work. The western site boundary directly abuts the Downs Link, presenting opportunities for direct pedestrian and cycle access. While the Downs Link provides a high-quality traffic-free route, although the existing surface quality varies and limits accessibility for some users.
- 1.1.14 Improvements are proposed to bus stop access, pedestrian crossings, footway continuity, tactile paving, and Downs Link surfacing, alongside enhancements to informal footpaths and crossings near Upper Beeding and Clays Hill.
- 1.1.15 The Sustainable Transport Strategy would include Active Travel improvements to the Downs Link, a cycle hire scheme (including e-bikes), and a mobility hub offering bike parking and EV charging. A carpool fleet will be available, with free membership for residents for three years. Estimated costs for implementing the strategy total £2,031,600, covering infrastructure, transport services, and bike provisions.
- 1.1.16 The Shoreham Cement Works development would include circa 400 homes, 62,000 sqm of employment floorspace, and 4,000 sqm for retail and community services. A "neighbourhood centre" will offer amenities like a café, small food retail shop, pharmacy, and nursery.
- 1.1.17 The transport strategy promotes sustainable travel with walking, cycling, and public transport options, including enhanced bus services, a shuttle bus, car-sharing, and e-bike facilities. The development aims to reduce car trips through a restrictive parking policy, the internalisation of a proportion of trips through the provision of complementary land uses and the implementation of a comprehensive number of measures and services as part of the Sustainable Transport Strategy. Mode share scenarios reflect reduced car use as a result of these initiatives.

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- 1.1.18 A comparison of DfT traffic counts from 2016 to 2024 shows a 12.6% reduction in traffic volumes. Further data from WSCC traffic counts for 2025 indicated an 11% reduction from 2016, supporting the assumption of no traffic growth between 2019 and 2025.
- 1.1.19 A 7.3% increase in traffic is forecasted between 2025 and 2042, based on national growth projections applying the core scenario using TEMPro 8.
- 1.1.20 For traffic modelling, the impact of the development on future traffic growth was removed by applying the alternative the alternative assumptions assessment within the TEMPro/NTEM calculations to avoid double-counting.
- 1.1.21 This Transport Study assesses the traffic impact of a proposed development with 400 homes, 32,000 sqm of office space, 30,000 sqm of industrial/warehousing, and 4,000 sqm of retail/community space.
- 1.1.22 RGP has adopted a slightly adapted version of the previously agreed trip distribution and assignment methodology (within the ADL Study) by using multiple MSOA areas (Adur 002, 005, 007) for more accurate employment trip distribution, as Adur 007A alone favours travel to Worthing and Lancing over Shoreham and Portslade.
- 1.1.23 RGP has assessed the retained use of the existing left-in/left-out junction site access arrangements as a more cost-effective and ecologically sensitive option to the layout proposed as part of the ADL Study. RGP conducted a site visit and traffic modelling exercise to assess the feasibility of this approach, including using the underpass link beneath the A283 and evaluating traffic flow with LINSIG software.
- 1.1.24 The transport study assessed junction capacity for two site accesses in 2042, using industry-standard software. Both northern and southern accesses, modelled with left-in/left-out arrangements, showed minimal delays and no significant congestion.
- 1.1.25 The development minimally impacts congestion, but some junctions, such as the Washington Roundabout, A283/A27 Slips, and A283/Upper Shoreham Road, require mitigation due to pre-existing issues. Local highway authority (WSCC) is responsible for further capacity improvements.
- 1.1.26 To mitigate the impact of the proposed development on the A283 / A27 East and West Slips Roundabout, a package of minor highway infrastructure measures have been proposed. The proposed mitigation works are estimated to cost £50,000, including road widening, resurfacing, and lane markings.
- 1.1.27 The conclusion of this Transport Study is that the delivery of the proposed development mix within the Shoreham Cement Works is feasible from a transport and highways perspective. The implementation of the Sustainable Transport Strategy at a cost of circa £2 million will be critical to the success of achieving the levels of mode shift sought by embedding sustainable travel behaviours to journeys made to and from the site by residents, employees and visitors from the outset.

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- 1.1.28 The traffic junction modelling has demonstrated that the proposed left-in/left-out site access arrangements can accommodate future traffic with minimal delays, while junctions already experiencing congestion will be managed through targeted mitigation. Overall, the development is expected to have a limited impact on the local highway network, with sustainable transport and other supporting measures reducing reliance on single occupancy private car journeys.

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## 2 INTRODUCTION

### 2.1 Background

2.1.1 Shoreham Cement Works site is allocated as site SD56 within the South Downs Local Plan for a mixed-use development which delivers a substantially enhanced landscape and uses that are compatible with the purposes of the National Park. The policy states that the SDNPA has started work on an Area Action Plan (AAP) for the site, with the overall aims of:

- i) enhancing the visual impact of the site from both the nearby and distant public viewpoints;
- ii) conserving, enhancing and providing opportunities for understanding the biodiversity, geodiversity, historic significance and cultural heritage of the site;
- iii) ensuring the delivery of Ecosystems Services; and
- iv) ensuring that the design of any development is of the highest quality and appropriate to its setting within a National Park.

2.1.2 It is anticipated that the masterplan design for the site would seek to achieve a strong landscape led design for the proposal. The masterplan would seek to deliver a high quality sustainable residential-led, mixed use development which seeks to create an aspirational, high-quality development that integrates residential development with the adjacent countryside.

2.1.3 The Shoreham Cement Works site is identified under Policy SD56 of the South Downs Local Plan (2019) for an exemplar sustainable mixed-use redevelopment, delivering a substantially enhanced landscape and a mix of uses compatible with National Park purposes.

### 2.2 Purpose of the Study

2.2.1 The purpose of this study is to help inform the Local Plan Review (LPR) currently being prepared by the South Downs National Park Authority (SDNPA). The South Downs LPR sets out a broad development strategy over the period to 2042. It identifies the overall amount of new housing and other development to take place in particular settlements and allocates land for development including on major strategic sites; one of which is Shoreham Cement Works.

2.2.2 A previous Transport Study has been undertaken by ADL which considered four different land use development scenarios within the site. The trip generation methodology was determined through the application of TRICS survey data although this did not follow the "Vision and Validate" methodology in assessing the impact of delivering a package of sustainable travel mitigation measures to affect mode choice and the need to travel to/from the site. The assessment of the four development scenarios was presented within a Transport Assessment (TA) report dated April 2022.

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- 2.2.3 The ADL TA used a combination of Highways England/National Highways traffic data from June 2015, from the Shoreham Wharf TA (2017) and traffic flow data from the Horsham Study (May 2019). A total of 10 off-site junctions were assessed during the weekday AM and PM peak hour periods in addition to the two existing site access junctions with the A283 Steining Road. ADL also assessed several options in designing an appropriate site access junction arrangement in accommodating the change in anticipated vehicular traffic associated with the development proposals when compared against the permitted use of the site.
- 2.2.4 A comprehensive Transport Assessment (April 2022) was prepared by ADL for the SDNPA to inform the AAP. That study examined four development scenarios, a range of access options, and off-site network impacts along the A283 and A27 corridors.
- 2.2.5 Following the completion of the ADL study, RGP has been appointed to update, consolidate, and, where necessary, verify the technical assumptions and to progress engagement with SDNPA, WSCC, and NH towards an agreed transport position.
- 2.2.6 This development scenario is based upon a modified version of Development Scenario 1 within the ADL report.
- 2.2.7 The development scenario is described as housing/employment-led and proposes 400 dwellings and 66,000 sqm of commercial/office/community/retail floorspace.
- 2.2.8 'Vision and Validate' is the new approach to transport planning and RGP's Preliminary Vision is set out within this bid document. The vision includes targeting different journey lengths and offering appropriate alternatives and cost-effective solutions to those specific journeys.
- 2.2.9 'Vision and Validate' is focused on the principles of the sustainable travel hierarchy <https://energysavingtrust.org.uk/an-introduction-to-the-sustainable-travel-hierarchy/> in supporting and encouraging active travel and public transport modes through the design of places that are healthy, socially inclusive, and well connected by local services and amenities.
- 2.2.10 The development will generate new movements by a range of transport modes, including walking, cycling and public transport trips in addition to car trips. The ability for some of this travel demand to be 'internalised' within the boundary of the development may reduce the overall impact slightly by the provision of local community facilities as part of this mixed-use development, for example.

### 2.3 Timescales, Caveats and Constraints to this Study

- 2.3.1 The assumptions formulated as part of the study methodology are considered robust and have been agreed in principle with Guy Perfect, the Senior Highways Planning Officer at West Sussex County Council (WSCC).
- 2.3.2 However, it is acknowledged that the short timescales (circa 7 weeks) in delivering the draft Transport Study following initial appointment has precluded the ability for RGP to undertake a very detailed approach involving extensive liaison and discussions with public transport operators, car club operators, lighting consultants, and other stakeholders.

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2.3.3 As such, the cost estimates associated with the Sustainable Transport Strategy should be regarded as indicative only and would be subject to further scrutiny and more detailed appraisal following wider stakeholder consultation.

### 2.4 Supporting Documents

2.4.1 RGP have prepared two Technical Notes which supplement this final Transport Assessment. These outline and assess the various elements required to carry out this transport study, they are as follows:

- v) Technical Note 1: Transport Study Scoping Methodology (TSSM)
- vi) Technical Note 2: Junction Capacity Assessment

2.4.2 Each of the Technical Notes have been reviewed by stakeholders in order to reach an agreement to guide this transport study.

### 2.5 Discussions with Stakeholders

2.5.1 As part of this study, RGP have liaised with the following key stakeholders; SDNPA as the local planning authority, WSCC as the local highway authority, and National Highways (NH) with respect to assessing the potential impact of the development proposals on the Strategic Road Network (SRN).

2.5.2 Following a project inception meeting with the project team members and the Transport Officer at SDNPA, correspondence between RGP and WSCC has typically been undertaken via telephone conversations and email correspondence.

2.5.3 Following the submission of TN01, a response from WSCC was issued on 19<sup>th</sup> November 2025 and from NH on 5<sup>th</sup> December 2025. Both responses are contained in **Appendix A**.

2.5.4 Whilst much of the methodology as defined within the Scoping Methodology report (TN01) was agreed with WSCC/NH, the following points were raised:

- vii) Use of the TRICS site applied to determine trip rates for the B2 Industrial Estate land use was queried;
- viii) For the purposes of SRN junction assessment, updated traffic turning counts should be undertaken. Additionally, turning count movements at the site access junctions was requested;
- ix) Clarity as to whether the proposed B8 land use is traditional warehousing or last mile warehousing;
- x) Office trip rates deemed by NH to be too low and a further review of TRICS sites was recommended; and
- xi) That 2025 base models are calibrated against recorded maximum vehicle queues against the highest 15-minute period when assessing SRN junctions.

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- 2.5.5 This TA report has addressed the queries raised with respect to the use of specific land use types, TRICS sites applied and resultant trips. Both B2 Industrial Estate and B1 Office land uses have been reassessed in TRICS as documented later in this report.
- 2.5.6 With respect to B8 warehousing, last-mile warehouses are typically smaller in scale and serve as strategically located distribution hubs. The development site would afford up to 30,000 sqm of B8 warehousing which is anticipated to be in the form of traditional warehousing used for longer term storage and distribution. Last-mile warehousing has therefore not been considered within this assessment.
- 2.5.7 As discussed in Section 2.3, the timescales and budgetary constraints imposed as part of this Transport Study, have not allowed for detailed updated traffic turning count surveys to be undertaken.
- 2.5.8 However, it is anticipated that a full update of traffic turning count survey data would be commissioned as part of any future planning application related to the development of the Shoreham Cement Works site.

## 2.6 Scope of Study

- i) Section 3 describes the site and surrounding area, including the highway network in the vicinity of the site and broader context.
- i) Section 4 analyses the official accident data for the latest 5-year period, provided by WSCC for the study area.
- ii) Section 5 summarises the permitted trip generation of the site.
- iii) Section 6 describes the accessibility of the site to non-car modes of transport, including walking, cycling and public transport.
- iv) Section 7 provides a summary of the Active Travel Zone Assessment within the identified study area.
- v) Section 8 describes the proposed Sustainable Transport Strategy associated with the vision-led implementation of the site proposals.
- vi) Section 9 summarises the baseline traffic scenario in Year 2042 and committed development traffic.
- vii) Section 10 outlines the proposed land use development mix and assessment scenarios tested in this transport study.
- viii) Section 11 outlines the proposed multi-modal trip generation of each of the site uses for each of the proposed assessment scenarios.
- ix) Section 12 outlines the trip assignment and distribution methodology for the proposed trip generation.

## Transport Assessment

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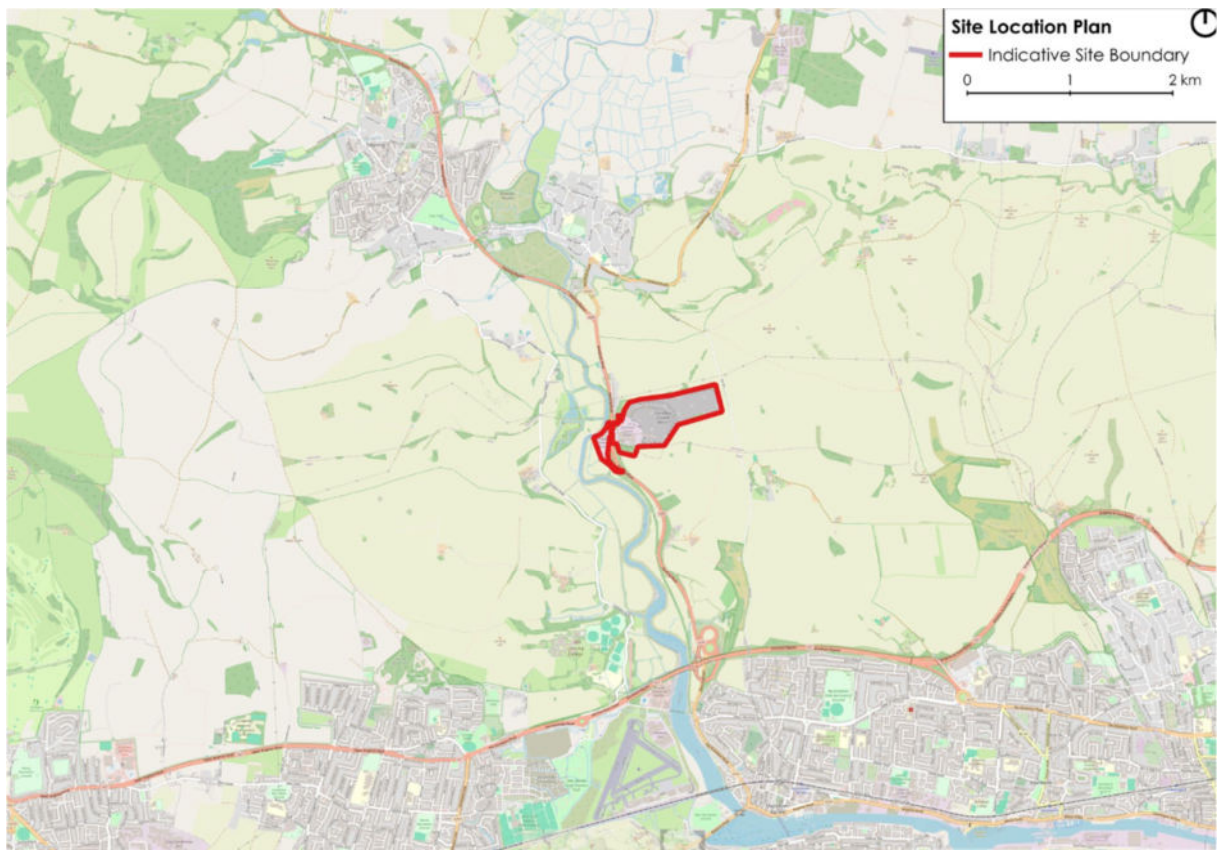
- x) Section 13 describes the proposed access arrangements for the site.
- xi) Section 14 undertakes a junction capacity assessment of the retained site access junctions,
- xii) Section 15 undertakes a junction capacity assessment of each of the junctions within this study, for each mode share assessment scenario, compared to the 2042 baseline scenario (i.e., no development).
- xiii) Section 16 details the off-site highway mitigation scheme at the A283/A27 junction and provides a budget cost estimate for the proposed works.
- xiv) Section 17 summarises the main findings and provides conclusions to the transport study.

## Transport Assessment

### 3 BASELINE CONDITIONS

#### 3.1 Site Location & Local Highway Network

- 3.1.1 The proposed development site at Shoreham Cement Works comprises a total area of circa 44-hectares separated into two land parcels by the A283 Steyning Road. The land is comprised of a semi-derelict cement works, inactive chalk quarry, temporary inert recycling facility and a mix of temporary business uses.
- 3.1.2 The site is located on both sides of the A283 Steyning Road, approximately five kilometres north of Shoreham-by-Sea and two kilometres south of Upper Beeding and Steyning. **Figure 1** illustrates the location and extent of the site.



**Figure 1 Wider Site Location**

#### 3.2 Site History

- 3.2.1 Large-scale cement production began on the site at the end of the nineteenth century on the western part of the site next to the River Adur. The current buildings were completed in 1948-50, permission having first been granted for chalk extraction in 1946 and extended in 1950 and 1969.

## Transport Assessment

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3.2.2 Chalk extraction and cement production ceased in 1991, however, it is understood that the permission was extended by an application for registration of the old mining permission in 1992. This extant permission for the extraction of chalk runs to 2042, when a basic restoration scheme would have to be implemented. The Local Plan Review period covers up to 2042 and also represents the future year assessment for this transport study.

3.2.3 The west of the site falls within Adur District Council (ADC), and the east of the site within Horsham District Council. The site is also located wholly within the South Downs National Park (SDNP), and the South Downs National Park Authority are the Local Planning Authority. The whole site is in single private ownership by the Dudman Group.

### 3.3 Local Highway Network

3.3.1 The site is located on the A283 Steyping Road between Shoreham-by-Sea and Upper Beeding. The site is served by two existing accesses from the A283 and includes an underpass linking the eastern and western parcels.

#### Northern Access (East of A283)

3.3.2 The site lies either side of the A283 Steyping Road. The northern access, to the eastern portion of the site, is a left in/left out priority T-junction. It is approximately 35 metres wide where it meets the A283 and eventually narrows to approximately 5.5m for the site access roads within the site. This access is currently used as the predominant point of vehicular access in accessing and egressing the site.

3.3.3 The left-in/left-out junction arrangement is strictly enforced within the site with both on-site and roadside signage present.

#### Southern Access (East of A283)

3.3.4 The southern access, to the western portion of the site, is an all-movements priority T-junction. It is approximately 35 metres wide at the A283 and narrows to approximately 5.5 metres wide. This access is currently gated, and fob controlled restricting vehicle movements. Vehicular access to the site by larger vehicles is typically not permitted via the southern access with employees of the site notified of the requirement to access the site from the northern access.

3.3.5 Roadside signage was observed in instructing drivers travelling northbound (from Shoreham) to access the left-in only northern access via a U-turn manoeuvre at the A283/ Shoreham Road roundabout junction.

3.3.6 The two portions of the site are connected by an underpass beneath the A283. The road carriageway width at this point is approximately 4.2m wide, with an additional 1.45-metre-wide footway also present. The combined width of the tunnel underpass is therefore 5.65m. The headroom height of the tunnel is 4.2 metres high, and the length of the tunnel is approximately 24.5 metres. The underpass is shown within **Figure 2**.

## Transport Assessment



**Figure 2 - Underpass Access Route**

- 3.3.7 **Figure 2** also indicates that a 10mph speed limit has been imposed and that due to the relative narrowness of the carriageway, particularly for large industrial vehicles, one-way priority (east to west) is indicated.

### A283 Steyning Road

- 3.3.8 In the vicinity of the site, the A283 runs in a north-south direction, broadly parallel to the River Adur. The A283 connects the site with Shoreham-by-Sea to the south, and Storrington to the northwest. The A283 is a single carriageway road, approximately seven metres wide and subject to national speed limit of 60mph in the vicinity of the site access junctions.
- 3.3.9 At a distance of approximately 270m to the north of the northern site access junction (eastern section of site), the speed limit is reduced to 40mph close to the junction with Dacre Gardens.

### Broader Highway Network: A283

#### A283 (South of the Site)

- 3.3.10 Approximately 2.3 kilometres south of the site, the A283 meets the A27 slips at a four-arm roundabout. To the south of this roundabout, the A283 leads to Shoreham and then the A259. Approximately 500 metres south of the A27 roundabout, the speed limit is reduced to 30mph.

## Transport Assessment

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3.3.11 Approximately 3.1 kilometres south of the site, the A283 meets Upper Shoreham Road at a three-arm mini roundabout, which leads through Shoreham, up to the Holmbush Roundabout (with A270).

3.3.12 Approximately 4.1 kilometres south of the site, the A283 meets the A259 at a three-arm roundabout. The A259 which leads to South Lancing the west, and forms Shoreham High Steet to the east. Each of the junction approaches are flared to two lanes of carriageway. This junction is typically congested during the weekday peak hour periods.

### A283 (North of the Site)

#### A283/A2037 Roundabout

3.3.13 The A283/A2037 Shoreham Road roundabout is located approximately 1km to the north of the Shoreham Cement Works site. This junction provides access to the village of Upper Beeding from the A283.

3.3.14 It is noted that existing commercial and heavy vehicles associated with the existing uses at the Shoreham Cement Works site utilise this roundabout in performing a U-turn in accessing the left-in only eastern part of the site.

#### Clays Hill Roundabout

3.3.15 Approximately 2.6 kilometres north of the site, the A283 meets a six-arm roundabout with Clays Hill, Mauldin Lane, Castle Lane, and The Steet. The speed limit is reduced to 30mph at the roundabout. The Maudlin Lane, Clays Hill and Castle Lane arms of the roundabout provide link to different areas of Steyning, whilst The Street leads to Bamber and Upper Beeding.

3.3.16 The Downs Link follows a north-south alignment which runs parrel to the east of the A283 carriageway. The Downs Link crosses the Clays Hill roundabout with dropped kerbs and pedestrian refuges provided.

#### A283/B2135 Horsham Road Junction

3.3.17 Approximately 5.5 kilometres north of the site, the A283 meets B2135 Horsham Road at a left-right staggered junction. Horsham Road, north of the A283 is approximately 6.5-7m in width which leads to Ashurst and Partridge Green.

3.3.18 and eventually the A24, approximately 1.3 kilometres south of the A272. To the south of the junction with the A283, Horsham Road leads to Steyning High Street.

#### A283/Water Lane Junction

3.3.19 Approximately 8.3 kilometres north of the site, the A283 meets Water Lane and Chanctonbury Ring Road at a simple crossroads junction. Water Lane is a rural road, with a width of approximately 4.5 metres which leads to Ashington, and A24.

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- 3.3.20 It is understood that any proposed junction capacity highway infrastructure improvement works to the A283/Water Lane junction would serve to further encourage rat running in relation to northbound trips accessing the A24 towards Ashington whilst avoiding the Washington roundabout.

### Washington Roundabout (A283/A24)

- 3.3.21 The A283 junction with the A24 is known as the Washington roundabout. The A24 is a dual carriageway road which leads to Worthing to the south and Horsham to the north. The A283 west of the roundabout leads to Storrington.
- 3.3.22 It is understood that WSCC are planning to implement a highway safety scheme at the roundabout as part of an overall A24 corridor programme of works. The proposals will comprise speed reduction measures undertaken via a TRO (Traffic Regulation Order) procedure.
- 3.3.23 It is also understood that WSCC are in the process of preparing a highway improvement scheme at the Washington Roundabout which would include highway capacity improvements in recognising that the junction currently operates above design capacity during the weekday peak hour periods.

### Broader Highway Network: A27 Shoreham By-Pass

- 3.3.24 The A27 in the vicinity of the site forms part of the strategic road network. It is a key east-west link providing access between Brighton, Shoreham, Lancing, and Worthing.
- 3.3.25 Within the vicinity of Shoreham, the A27 is a dual carriageway providing two lanes in either direction with a speed limit of 70mph. The carriageway in the vicinity of the site is straight with good forward visibility.
- 3.3.26 Approximately 700 metres west of the A27 Slips to the A283 roundabout, the A27 is met by Old Shoreham Road and Coombes Road at a staggered signal crossroads. At this point, the A27 widens to three lanes.

### A27/Brimstone Road (Monks Farm access)

- 3.3.27 The junction of the A27 with the access road to the Monks Farm/Shoreham Airport development has been designed as a fully signalised four-arm roundabout.
- 3.3.28 The construction of the new junction required the removal of the existing Coombes Road traffic signal operation with access retained via a left in/left out arrangement from the eastbound A27 carriageway.
- 3.3.29 The highway works have included:
- i) The creation of a new off-carriageway foot/cycle link along the northern side of the A27 linking to Hoe Court and Lancing College;

## Transport Assessment

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- ii) Provision of at-grade Toucan crossing facilities at the new roundabout retaining controlled crossing facilities on the A27 for north-south movements; and
- iii) Creation of new off-carriageway foot/cycle links as part of the internal road layout, providing an alternative route away from the A27.

### Lancing Manor Roundabout

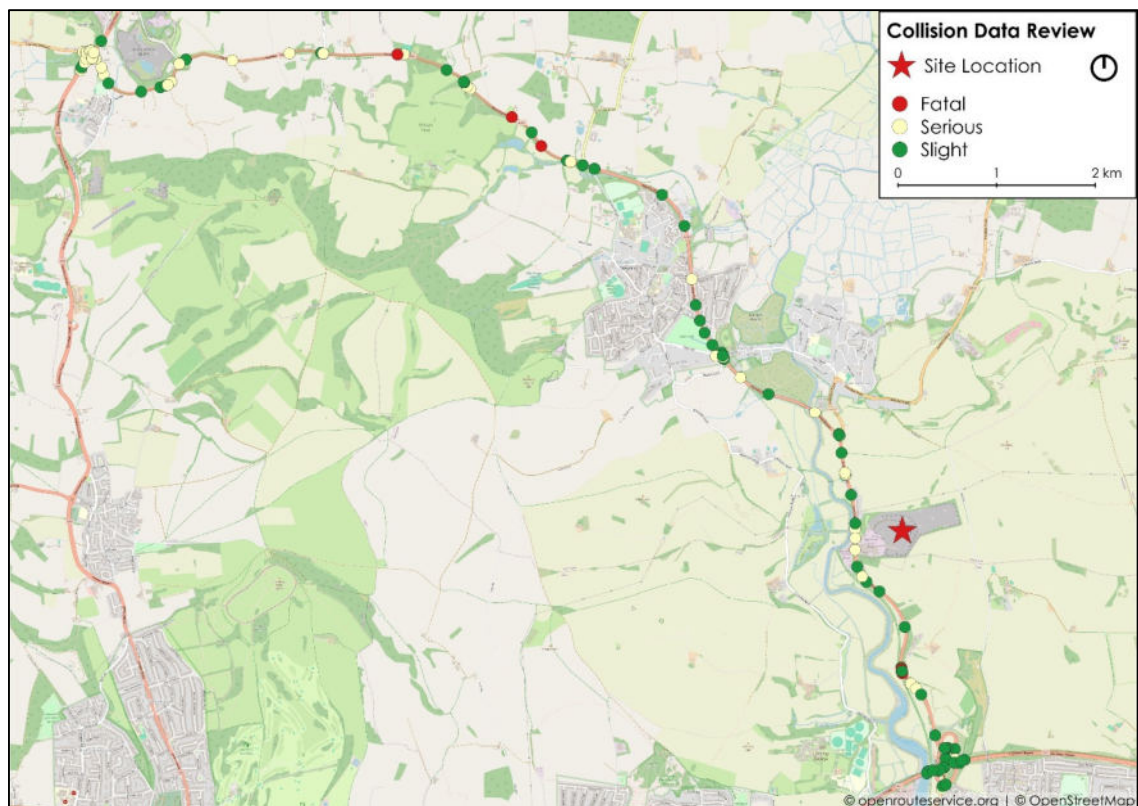
- 3.3.30 Approximately 2.4 kilometres west of the A27 Slips to the A283 roundabout, the A27 meets the A2025 Grinstead Lane and Manor Road at a four-arm roundabout (known as the Lancing Manor Roundabout).
- 3.3.31 The Lancing Manor roundabout includes two lanes on the A27 approach arms with two lanes continuing around the circulatory carriageway. The circulatory carriageway also includes 'Keep Clear' markings to ensure that entry arms are not blocked. On the Grinstead Lane and Manor Road arms, the approaches consist of single lanes which then flare to separate turning movements at the junction.
- 3.3.32 Grinstead Lane is a single carriageway road and leads to Lancing / South Lancing. Manor Road is a single carriageway road and leads to North Lancing.
- 3.3.33 Baseline traffic flows, speeds and forecasted traffic growth is detailed in **Section 9**.

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### 4 ROAD SAFETY STUDY – COLLISION DATA REVIEW

4.1.1 RGP have obtained collision data from West Sussex County Council (WSCC) road safety team for the latest five-year period up to the 30th of September 2025. As previously agreed within TN01, this Collision Data Review would include all junctions located along the A283 between the Washington Roundabout to the north-west of the site, extending to the junction with the A27 to the south of the site. The raw collision data is contained in **Appendix B**.

4.1.2 **Figure 1** indicates the extent of the highway network along the A283 with respect to collision data analysis.



**Figure 3- Extent of Collision Data Study Area**

4.1.3 **Figure 3** indicates the locational distribution of the collisions recorded, with collision clusters present at the Washington Roundabout, A283/A27 junction and along certain sections of the A283. **Figure 4** summarises the collisions by year.

Severity	2020	2021	2022	2023	2024	2025	Total
Fatal	1	1	1	2	0	0	5
Serious	2	9	17	5	2	10	45
Slight	6	22	23	20	21	14	106
<b>Total</b>	<b>9</b>	<b>32</b>	<b>41</b>	<b>27</b>	<b>23</b>	<b>24</b>	<b>156</b>

**Figure 4 – Collision Severity by Year**

## Transport Assessment

4.1.4 Of the total 156 collisions, approximately 68% resulted in slight injuries. A total of 45 serious injuries were recorded in addition to 5 recorded fatalities.

4.1.5 **Figure 5** summarises the collision by junction type along the collision area.

Junction Type	Number of Collisions	% of Collisions
Not within 20m	72	46%
Roundabout	55	35%
T & Stag Junction	14	9%
Crossroads	3	2%
Private Drive	2	1%
Other Junctions	10	6%

**Figure 5 - Collision Data Summary**

4.1.6 **Figure 6** summarises the collision by vehicle/rider/user type highlighting the severity for additional context.

Vehicle Type Involved	Number of Collisions	% of Collisions within Severity
<b>Fatal</b>		
Car	5	50%
Motorcycle	3	30%
HGV	1	10%
LGV	1	10%
<b>Serious</b>		
Car	67	66%
Motorcycle	17	17%
LGV	8	8%
Other Vehicle	4	4%
Pedal Cycle	3	3%
HGV	2	2%
<b>Slight</b>		
Car	176	77%
Motorcycle	21	9%
LGV	16	7%
HGV	6	3%
Pedal Cycle	5	2%
Other Vehicle	4	2%
Bus or Coach	1	0%

**Figure 6 – Injury Severity by User Type**

4.1.7 As shown within **Figure 6**, with respect to vulnerable users, there were no injuries recorded with respect to pedestrians and a total of 3 serious and 5 slight injuries relating to cyclists.

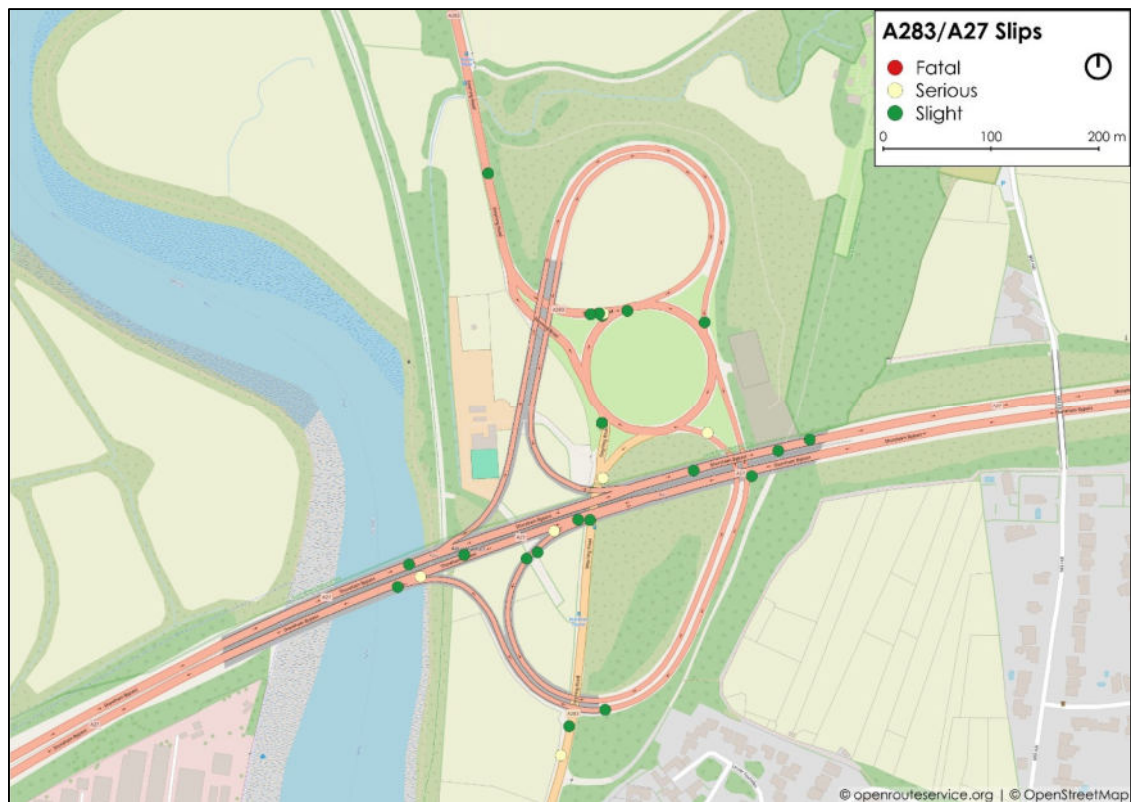
## Transport Assessment

### Collision Cluster Analysis

- 4.1.8 Based on the Adur Local Plan Second Addendum: Revised Reissue September 2016 Transport Study “a cluster of collisions is defined as eight or more collisions within a 60 meter-diameter over a five-year study period. “
- 4.1.9 Analysis of the collision data provided by WSCC indicates that there are few instances of eight collisions occurring within a 60 m distance in the assessed area. These are located at both the Washington Roundabout (A24) and the A283/A27 slips and discussed within this review.

### Junction 1 - A283/A27 Slips;

- 4.1.10 The A283/A27 junction recorded a total of 27 collisions within the most recently available 5 years collision data. Out of the 27 collisions, 21 were recorded as slight and six serious. Figures 5 and 6 illustrate both the locational nature of the collisions and provide more detail into the causation factors attributed to the collisions.



**Figure 7 - Junction 1 (A283/A27 Slips)**

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Cause	Arm				A27	Total
	A283 North	A27 Eastbound Slips	A27 Westbound Slips	A283 South		
Following too close	2	0	0	0	0	2
Failed to Look Properly	1	0	0	0	1	2
Failed to judge other persons path or speed	2	0	0	0	2	4
Loss of Control	1	0	0	0	1	2
Impaired by drugs	0	0	0	0	1	1
Not displaying lights at night or in poor visibility	0	0	1	0	0	1
Aggressive Driving	0	0	1	0	0	1
Careless/Reckless	1	0	2	0	0	3
Dazzling sun	1	0	0	0	0	1
Ineffective observation	0	0	0	0	2	2
Other	0	0	0	0	1	1

**Figure 8 - Junction 1 (A283/A27 Slips) Causation Summary**

- 4.1.11 **Figure 8** demonstrates that the most common cause of collision was a failure to judge other persons path/speed or miss judgement at entering a roundabout. It is therefore considered that the majority of the collisions at this junction were the result of drive/rider error.

### Junction 2 (Washington Roundabout)

- 4.1.12 The Washington roundabout located to the north of the site, is a four-arm roundabout that includes the A24 and A283. As seen within **Figure 9**, there are major clusters of collisions at each of the entry points into the roundabout. Out of the 44 collisions recorded, six were assessed as serious with the other 38 as slight. **Figure 10** highlights the causation and location of the collisions at this junction.

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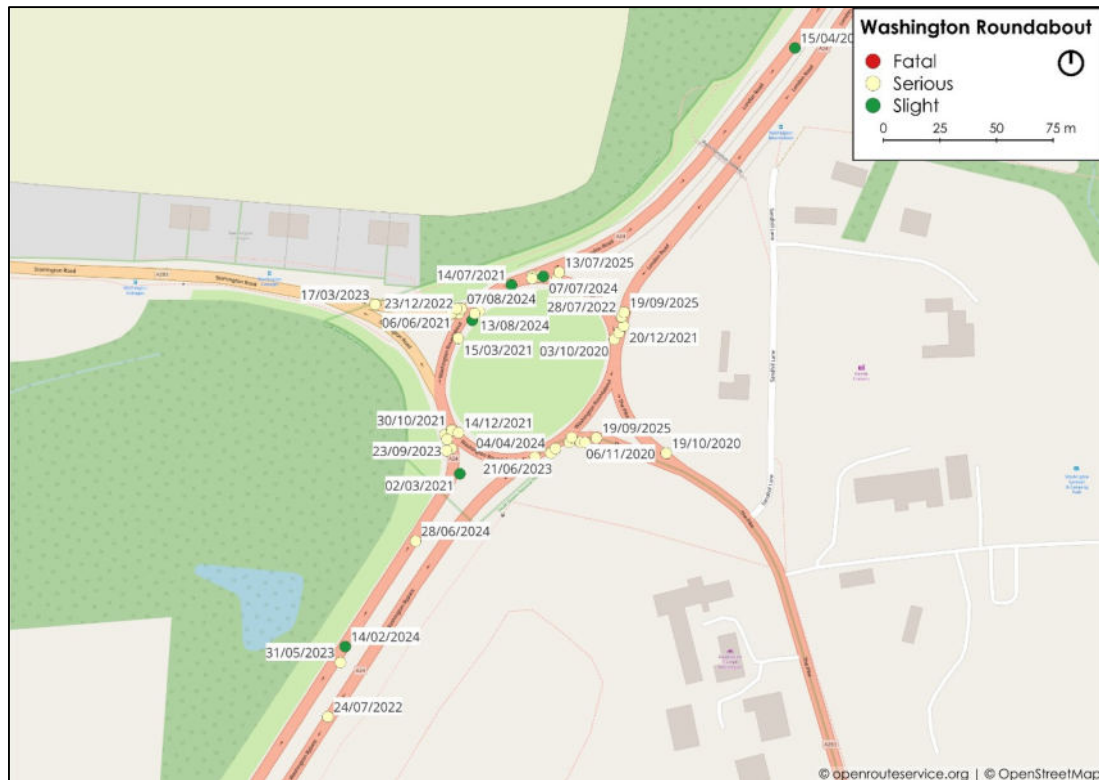


Figure 9 - Junction 2 (Washington Roundabout)

Cause	Arm				Circulatory Lane	Total
	A283 West	A24 North	A283 East	A24 South		
Defective breaks	0	0	0	1	0	1
Following too close	1	0	0	1	0	2
Failed to Look Properly	0	0	2	1	1	4
Failed to judge other persons path or speed	0	0	0	0	4	4
Loss of Control	0	0	0	1	0	0
Impaired by drugs	0	0	0	1	0	1
Impaired by alcohol	0	0	1	0	1	2
Aggressive Driving	0	0	0	0	3	3
Careless/Reckless	1	0	1	1	9	12
Vehicle Blind spot	0	0	0	0	1	1
Driver/rider had uncorrected eyesight	0	0	0	1	0	1
Other	2	2	2	1	4	13
Total	4	2	6	8	21	44

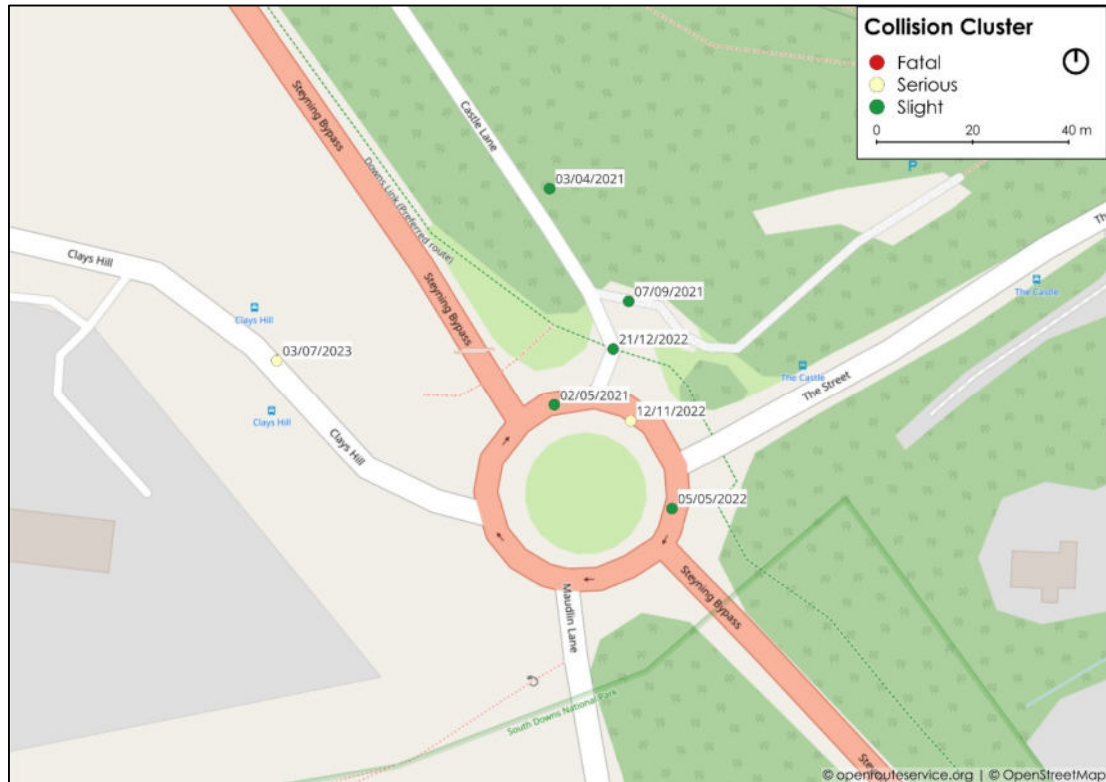
Figure 10 - Junction 2 (Washington Roundabout)

4.1.13 **Figure 10** demonstrates that the most frequent causation factor was cited as careless/reckless driving. Some form of driver error was typically cited as being the cause of the recorded collisions.

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### Junction 3 - A283/ The Street/Clays Hill Roundabout

4.1.14 Whilst not fully meeting the Adur criteria as a “collision cluster,” at the A283/The Street/Clays Hill Roundabout, a cluster of seven collisions were recorded, as shown in **Figure 11**.



**Figure 11 - A283/ The Street/Clays Hill Roundabout - Collision Cluster**

4.1.15 **Figure 11** indicates the location of the collisions recorded. **Figure 12** summarises the collisions illustrated within **Figure 11**.

Date	No. of Vehicles	Severity	Cause(s)
03/04/2021	3	Slight	V1 travelling south along Castle Lane, Bramber reverses into V2 behind to give space for oncoming V3 to pass on narrow lane
02/05/2021	1	Slight	V1 entered RBT, hitting v2 who was already on it
07/09/2021	1	Slight	Vehicle 1 appears to have been travelling in a westerly direction along the street, Bramber towards the roundabout at the junction with Roman Road and the A283 Shoreham-by-pass road. The driver of vehicle 1 seems to have lost control and veered.
05/05/2022	2	Slight	V1 was traveling north to west on the street, Bramber and has approached the roundabout. V2 was travelling north to south on Castle Lane, Bramber and approached the roundabout about.

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12/11/2022	2	Serious	V2 (bicycle) was going around Bramber Lane roundabout heading towards the A283 towards Shoreham. V1 was travelling in the same direction and has collided with V2.
21/12/2022	1	Slight	V1 as he approached a roundabout suddenly saw a person dressed in black, person was struck by V1 causing him to land on the bonnet of the vehicle.
03/07/2023	2	Serious	V1 was driving southeast along clays hill, Steyning towards Bramber roundabout at junction with a283 Steyning bypass. As the road bends rights approximately 60 metres before the RA it has mounted the pavement on its nearside

**Figure 12 - A283/ The Street/Clays Hill Roundabout - Collision Cluster Summary**

4.1.16 As shown within the figure above, all 7 collisions within the collision cluster were caused by driver error rather than showing an inherent road safety issue. A total of 14 vehicles were involved within collisions at this junction, of which 11 of these vehicles were cars and a further 4 were pedal cycles.

### Site Access

4.1.17 **Figure 13** shows the location of the collisions that took place within the vicinity of the two existing site access junctions.



**Figure 13 - Site Access Collision Review**

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- 4.1.18 **Figure 13** indicates that one serious collision was recorded close to the southern access, this occurred in September 2022 and involved three vehicles. The collision occurred during daylight hours where the following occurred "Vehicle 1 travelling north on A283. Vehicle 2 travelling south. Vehicle 3 travelling south behind vehicle 2. Vehicle 1 crosses central white line collides with vehicle 2 before colliding with vehicle 3."
- 4.1.19 At the A283/A2037 roundabout, three collisions were recorded of which two were slight and one was serious. The causation factors and a description of the collisions can be found in **Figure 14**.

Date	No. of Vehicles	Severity	Cause(s)
26/01/2022	1	Serious	V1 has entered main road from car park turning right into path of cyclist V2 travelling south.
29/07/2023	2	Slight	V1 was travelling northwest on the A283, approaching roundabout. V2 was travelling south on A283, also approaching roundabout. V2 entered the roundabout, to take the second exit southbound on the A283. V1 failed to observe v2 already on the roundabout
13/10/2024	1	Slight	At the time of the collision, the weather was clear and dry. The road surface was in good condition, and the area was lit by street lighting. The temperature was 9 degrees. It would appear that V1 was travelling south along the Steyning by-pass towards roundabout and was impaired by alcohol.

**Figure 14 - Junction 2 (A283/A2037 Roundabout)**

### ADL Collision Data Comparison

- 4.1.20 **Figure 15** provides a comparison of the most recently available 5 years' worth of collision data to the collision data assessed within the ADL study submitted in April 2022 and covering the period of April 2015 – March 2020.

	RGP Data (2020-2025)				ADL Data (2015-2020)			
	Slight	Serious	Fatal	Total	Slight	Serious	Fatal	Total
A283/Clays Hill Junction;	3	2	0	5	6	0	0	6
A283/A2037 roundabout;	2	1	0	3	4	1	0	5
A283/A27 Slips;	21	6	0	27	21	5	0	26
Site Access North	0	0	0	0	0	0	0	0
Site Access South	1	0	0	1	2	0	0	2
Washington Roundabout (A24)	38	6	0	44	19	1	0	20
Total	65	15	0	80	52	7	0	59

**Figure 15 - ADL Collision Data Comparison**

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- 4.1.21 The results from **Figure 15** indicate that the frequency and number of collisions is consistent across the entire 10 years' worth of collision data, notwithstanding some annual variation.
- 4.1.22 However, with respect to the Washington Roundabout, the annual rate of collisions has increase from an average of 4 per year to 8.8 collisions per year, an average annual increase of 120% when compared to the collision rate recorded between 2020 and 2025.
- 4.1.23 It is noted that WSCC are in the process of implementing a safety scheme for this junction to reduce the collision risk at the junction.

### Collision Data Review Conclusion

- 4.1.24 RGP has reviewed the overall collision data provided by WSCC for the most recent five-year period across the agreed scoping area (as detailed in TN01).
- 4.1.25 A total of 156 collisions were recorded, approximately 60% of which resulted in slight injuries. Only five collisions were fatal, averaging fewer than one per year along the A283. Of the 340 vehicles involved in collisions within the dataset, 73% were cars and 12% motorcycles.
- 4.1.26 RGP have investigated the collisions across two junctions that meet the criteria of collision clusters as defined within the Adur Local Plan part of this collision data analysis review. Furthermore, RGP has assessed a further two junctions with three or more collisions recorded over a 5-year period.
- 4.1.27 RGP have been informed by the WSCC road safety team that a highway safety scheme is to be implemented at the Washington Roundabout.
- 4.1.28 With respect to the Clays Hill junction, a review of pedestrian/cycle crossing points of this roundabout and its interface with the Downs Link has been considered as part of the ATZ Assessment within **Section 7**.

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### 5 PERMITTED VEHICULAR TRIP GENERATION

- 5.1.1 It is RGP's understanding that the permitted uses associated with the site as detailed in the ADL Study report following information provided by SDNPA's Major Projects Team remains unchanged since the ADL report was issued in April 2022.
- 5.1.2 This section of the TA report provides a summary of the permitted uses and resulting vehicular activity focusing upon the weekday AM (08:00-09:00) and PM (17:00-18:00) Peak Hour periods. This information has been extracted from the ADL Study report.
- 5.1.3 SDNPA's Major Projects Head provided the following information regarding existing permitted uses on site that have been active during the last five years:

#### East of A283 (main cement works site)

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

#### West of A283

- i) Site area = 3.45 hectares
  - ii) Vehicle repair, coach and bus parking, scrap recycling, scaffold storage etc.
  - iii) Use Classes B1, B2 and B8 including residential security, caravan.
  - iv) 30 businesses employing 150 people
- 5.1.4 Based on the above 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.
- 5.1.5 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 within use classes B1, B2 and B8 (business, industry and storage) until 31st January 2025. This expiration date has subsequently been extended until 31 January 2030 under planning permission SDNP/25/00449/CND.
- 5.1.6 It is noted that there are 30 businesses on this part of the site. Table 5A within the ADL report indicating the following uses:

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- v) 1,698 sqm - vehicle recovery and repair business units;
- vi) 8,970 sqm - vehicle storage (cars/coaches/buses); and
- vii) 2,781 sqm - general industrial units.

5.1.7 The total volume of vehicular trips associated with the permitted uses as set out within Table 5C of the ADL Transport Study has been reproduced in **Figure 16**.

	Peak Hour	Arrivals	Departures	Total
Cement Works Site	08:00-09:00	5	5	10
	17:00-18:00	5	5	10
West of A283	08:00-09:00	60	22	82
	17:00-18:00	17	47	64
Total	08:00-09:00	65	27	95
	17:00-18:00	22	52	74

**Figure 16 - Permitted Uses - Vehicle Trips**

5.1.8 **Figure 16** 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. These trips have previously been accepted by SDNPA, WSCC and NH.

5.1.9 These traffic flows have been distributed as per the methodology agreed with WSCC following the submission of the Transport Study Methodology Report (TN1) and are provided diagrammatically as **Appendix C**.

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### 6 ACCESSIBILITY CREDENTIALS

#### 6.1 Overview

- 6.1.1 In accordance with relevant national (NPPF), regional and local transport planning policy objectives, a review of the existing transport infrastructure and services within the vicinity of the site has been undertaken.
- 6.1.2 It is commonly accepted that walking and cycling can replace motorised transport for journeys of up to 2 kilometres and 5 kilometres respectively. These are considered the preferred maximum distances as outlined in the CIHT Guidelines for Providing Journeys on Foot (2000).
- 6.1.3 Walking and cycling play a vital role in healthy and active lifestyles and if convenient and safe links are available there is significant opportunity to reduce the need for local car trips, thus reducing the traffic volumes on the surrounding highway network.
- 6.1.4 There are a range of services and amenities within a reasonable walk (2km) and cycle distance (8km) of the site to support both the residents and employees of the proposed development. A Local Amenities plan is indicated in **Figure 17**. An indicative 6km catchment area has been shown to include services and amenities in Upper Beeding, Steyning, Lancing and Shoreham.
- 6.1.5 The plan indicates that there are a number of local amenities located within a 2km walk distance of the site within Upper Beeding which includes Upper Beeding Primary School, The Towers Convent School and Steyning Grammar School. The Nisa local convenience store is also accessible from the site. Other local facilities within Upper Beeding include cafes, restaurants, a pharmacy, and GP surgery.
- 6.1.6 Further amenities are accessible within a 6km cyclable distance which includes primary and secondary schools within Lancing and Shoreham and a range of larger retail and foodstore units.

## Transport Assessment

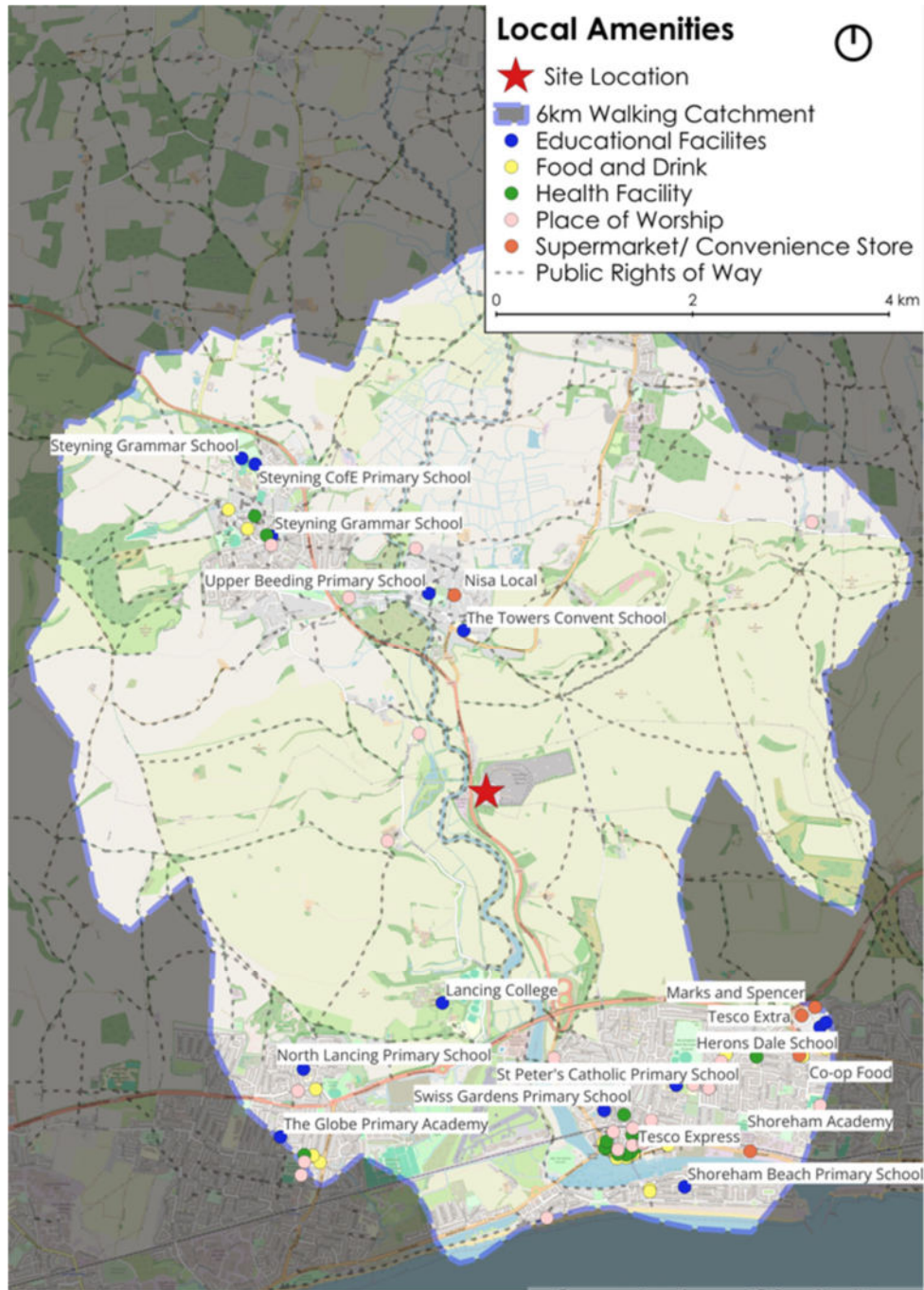


Figure 17 - Local Amenities Plan

### 6.2 Walking

6.2.1 The site is located in a semi-rural setting, with the nearest village to the north being Upper Beeding, located approximately 1.5km to the north of the site. Steyning High Street is located approximately 3.5km to the north of the site.

## Transport Assessment

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- 6.2.2 Shoreham-By-Sea is located approximately 4km from the site. However, the site does benefit from extensive existing pedestrian infrastructure, in the form of the Downs Link, South Downs Way and Public Rights of Way within the vicinity of the site.

### Pedestrian Infrastructure

- 6.2.3 There is a pedestrian footway on the southbound side of the A283, north of the northern site access. This is approximately two metres wide adjacent to the site and narrows to approximately one metre up to Dacre Gardens. Dacre Gardens consists of approximately 30 dwellings which were originally associated with the Shoreham Cement Works site as workers cottages. There are no footways on the northbound side of the A283, nor south of the northern access.
- 6.2.4 The two portions of the site are connected by an underpass beneath the A283. The carriageway width at this point is approximately 5.65 metres wide (this includes 1.45-metre-wide footway). The headroom height of the tunnel is approximately 4.2 metres high, and the length of the tunnel is approximately 24.5 metres.

### The Downs Link

- 6.2.5 The Downs Link is a 37-mile (59km) shared-use route linking the North Downs Way in Surrey with Shoreham-by-Sea in West Sussex. The Downs Link provides a long-distance route for walkers, horse riders and cyclists which follows two disused railway lines. The Downs Link is broken into six separate stages with the southernmost section (Stage 6) connecting Bramber/Steyning with Shoreham-by-Sea, a distance of approximately 6.6km.
- 6.2.6 The Downs Link between Steyning and Shoreham is a mixture of paved (asphalt) and unpaved, compacted gravel/stone sections, which can be uneven and muddy in wet weather. The entire section is not fully paved at present.
- 6.2.7 A review of the Downs Link has been undertaken and is documented in **Section 7** of this TA report.

### Public Rights of Way

- 6.2.8 The site benefits from several public rights of way (PROW) in the vicinity of the site, including footpaths bridleways and by-ways.
- 6.2.9 There is a footpath on both sides of the River Adur. Footpath number 3139 runs along the east side of the river and footpath number 2049 runs along the western side of the river.
- 6.2.10 The nearest crossing point across the River Adur is the footbridge approximately 650 metres north of the site. This is where path number 3209 intersects the two above mentioned footpaths. At this point, the South Downs Way traverses the River Adur, and then the A283.
- 6.2.11 The South Downs Way is a 100-mile/160-kilometre-long national trail and bridleway that runs between Winchester in Hampshire and Eastbourne in East Sussex.

## Transport Assessment

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- 6.2.12 The South Downs Way crosses the A283 approximately 800 metres north of the site. The accesses on either side of the carriageway are staggered, approximately 90 metres distance.
- 6.2.13 Here, there is an approximately two-metre footway on the eastern side of the carriageway, with a pedestrian refuge island crossing facility with dropped kerbs and tactile paving present as shown within **Figure 18**,



**Figure 18 - Pedestrian Refuge Island of A283**

- 6.2.14 A plan of the existing pedestrian infrastructure and the PROW network is provided as **Appendix D**.
- 6.2.15 Improvements to the Downs Link and enhanced pedestrian connections to the site is set out in **Section 7** of this TA report.

## Transport Assessment

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### 6.3 Cycling Provision

#### National Cycle Network

- 6.3.1 The site is well served by the National Cycle Network (NCN), which is a network of signed on-road and off-line cycle links. NCN Route 223 provides a 50-mile cycle route from Chertsey to Shoreham-by-Sea on a mixture of traffic-free paths and roads.
- 6.3.2 The Downs Link is a 37-mile (59km) shared-use route linking the North Downs Way in Surrey with Shoreham-by-Sea in West Sussex. The Downs Link forms a section of NCN 223 and is traffic free between Shoreham (at the A283/A259 roundabout) up to the A283/Clays Hill roundabout to the south of Steyping. North of this point, there is a segment of on-road cycle route through Bamber, before returning to predominantly traffic-free routeing towards Henfield.
- 6.3.3 The western perimeter of the site abuts the Downs Link which facilitates travel to/from the site by pedestrians and cyclists. From site visit observations, it was noted that the Downs Link is popular with runners.
- 6.3.4 The site is therefore accessible to pedestrians/recreational runners and cyclists between Shoreham to the south and Steyping/Bamber/Upper Beeding to the north.

#### Cycling Distance

- 6.3.5 According to the Department for Transport Cycle Infrastructure Design Local Transport Note (1/20), eight kilometres is considered a suitable distance to cycle for local journeys. This extent is shown on a plan provided as **Figure 19**.

## Transport Assessment

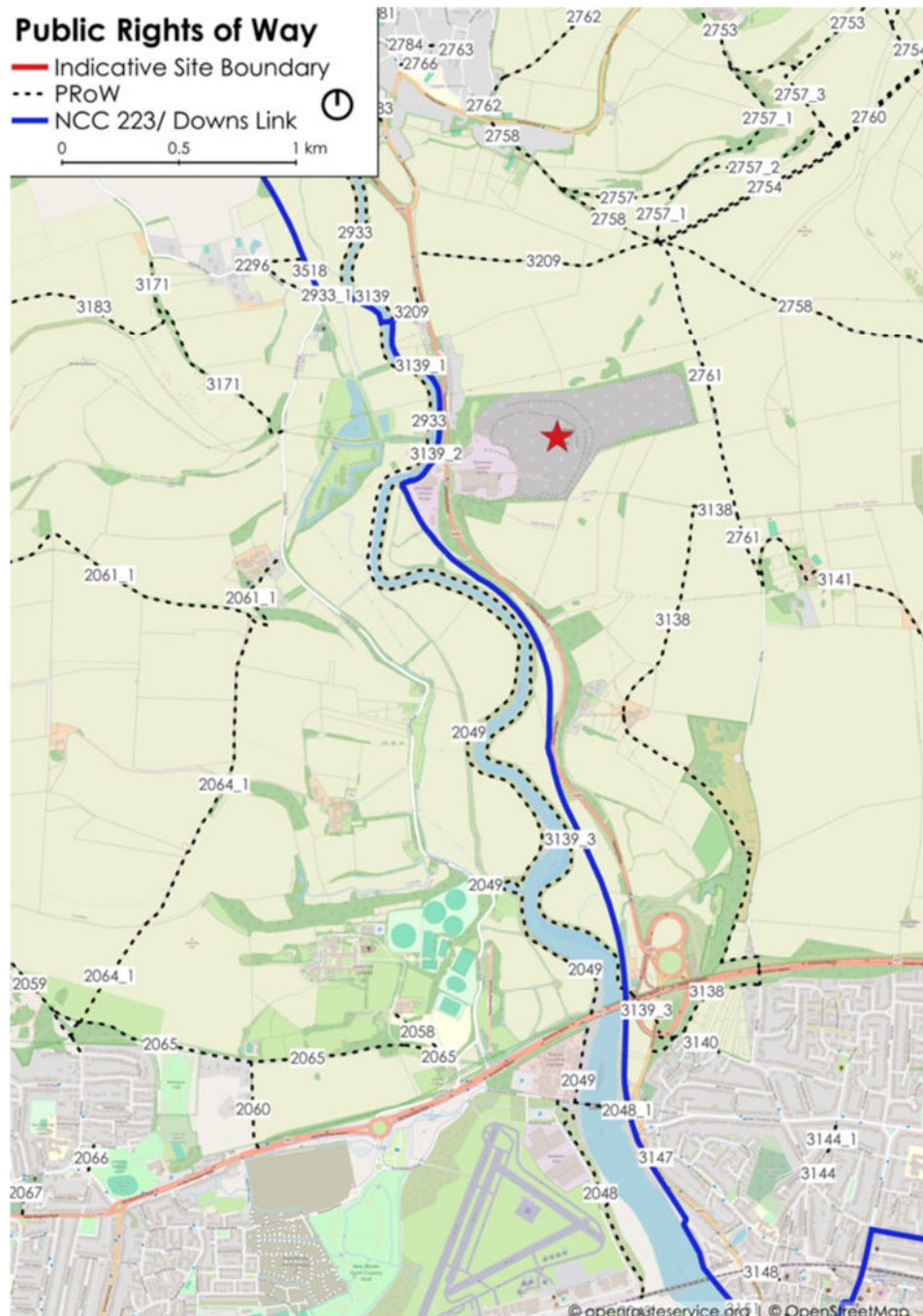


Figure 19 Local PRoW and Cycle Routes

### 6.4 Public Transport

#### Bus Services & Facilities

- 6.4.1 There is a set of bus stops (northbound and southbound) on the A283 adjacent to the site's northern access. Both bus stops are equipped with bus flag and poles in addition to basic timetable information.

## Transport Assessment

- 6.4.2 The southbound bus stop is approximately 60 metres north of the northern access. The northbound bus stop is located opposite the northern site access. The stops are therefore within the recommended maximum walking distance as per CIHT's Buses in Urban Development report (2018).
- 6.4.3 However, the pedestrian footway connecting to the southbound bus stop is narrow measuring circa 1m in width. The bus stops do not contain bus shelters with very limited hardstanding. There is no formal pedestrian access to the northbound bus stop from the western section of the site. It is noted that there is a level change from carriageway level to the western site level of circa 5m.
- 6.4.4 Access to the northbound bus stop would typically be undertaken by crossing the A283 from the narrow pedestrian footway and wide grass verge adjacent to the eastern section of the site. An informal basic pedestrian crossing is provided in the form of dropped kerbs.
- 6.4.1 A summary of the available bus services is presented in **Figure 20**.

Route No / Summary		Typical Frequency
2	Rottingdean to Steyning via Woodingdean, Race Hill, City Centre, Hove, Portslade, Southlands Hospital, Shoreham, Bramber	Mon-Sun: 1 per hour Every 30 minutes (06:20-07:45)  *Frequency increases to 4 per hour between Shoreham and Rottingdean
2B	Hove to Steyning via Portslade	Mon-Sat: 2 per day Sun: 1 per day
60	Old Steine to Steyning via Hove, Portslade, Manor Hall Road, Southwick, Shoreham, Bramber	Mon-Fri: 1 per day.
106	Henfield - Upper Beeding - Steyning - Lancing - Worthing (Tuesday / Wednesday / Friday)	Mon-Fri: 1 per day.
740	Lancing - Sompting - Steyning (school service)	Mon-Fri: 1 per day.

**Figure 20 Summary of Local Bus Services**

- 6.4.2 **Figure 20** demonstrates that the bus stops on the A283, adjacent to the site, serve five bus routes (including one school service) which link the site with Shoreham, Worthing, Lancing and Hove to the south, and Steyning and Bamber to the north.
- 6.4.3 Bus Route 2 provides an hourly service between Rottingdean and Steyning, with services at an increased frequency of every 30 minutes providing by the 06:32, 07:02 and 07:33 services from the bus stops in Upper Beeding.
- 6.4.4 It should be noted that the service frequency between Steyning is typically hourly (outside of the 06:30-07:30 period), however, the service frequency increases to four services/hour between Shoreham and Rottingdean.

## Transport Assessment

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6.4.5 The potential to provide an “enhanced” bus service 2 is discussed in Section 8 of the TA report. An enhanced bus service, providing an increased service frequency and improved pedestrian and bus infrastructure would form a key part of the proposed Sustainable Transport Strategy (STS) at the site.

6.4.6 A bus route map of Service 2 is appended hereto at **Appendix E**, while further information regarding routes and timetable information can be found at [www.traveline.info/](http://www.traveline.info/).

### 6.5 Rail Services & Facilities

6.5.1 The nearest railway station to the site is Shoreham-by-Sea which is approximately 4.4km south of the site. This is equivalent to a 14-minute cycle, or 59-minute walk journey time.

6.5.2 Shoreham station is served by Southern and provides rail links to Littlehampton, Portsmouth & Southsea and Southampton to the west; Brighton to the east; and London Victoria to the north. Typical service frequencies are summarised below:

- i) London Victoria via Gatwick Airport – two services/hour
- ii) Brighton - four services/hour
- iii) Littlehampton - two services/hour
- iv) Portsmouth & Southsea - one service/hour
- v) Chichester via Littlehampton - one service/hour
- vi) Southampton Central - two services/hour

6.5.3 The station is equipped with 131 car parking spaces and 42 cycle parking spaces. The station is Category B1 station, i.e., step free access to platforms via separate entrances.

6.5.4 Bus service 2 provides access to Shoreham rail station via the bus stops located on Buckingham Road/Sturry Street. The journey time from the bus stops adjacent to the northern site access and the station is circa 19 minutes.

6.5.5 There are two level crossings in Shoreham town centre, at Buckingham Road adjacent to Shoreham-by-Sea station and at Eastern Avenue, to the east of the station. It was observed that the level crossing barrier is lowered to accommodate passing trains and can be down for extended periods resulting in delay to vehicles, pedestrians and cyclists.

### 6.6 Summary of Accessibility Credentials

6.6.1 The above review demonstrates that the site is reasonably accessible by a variety of modes of transport that have the potential to reduce reliance upon the private car. The proximity and ability to provide direct connections to the Downs Link offers opportunities to encourage and promote trips by active travel modes,

## Transport Assessment

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- 6.6.2 The site is located on an existing public transport corridor, albeit a bus corridor which is not currently served by a high frequency service. The opportunity to improve active travel connections to the site are discussed in **Section 7** and opportunities to provide an enhanced bus service 2, site-based shuttle bus service and other measures to encourage sustainable trips is discussed within **Section 8** of this TA report.

## Transport Assessment

### 7 ACTIVE TRAVEL ZONE ASSESSMENT

#### 7.1 Introduction

7.1.1 As part of the study brief a “light touch” Walking, Cycling and Horse-Riding Assessment (WCHAR) has been requested to assess active travel connections within and adjacent to the site. A full WHCAR (GG142) Assessment is a comprehensive review and appraisal which focuses on the assessment of all-purpose trunk roads. The A283 is a two-way, single carriageway A-road and not an all-purpose trunk road and does not form part of the Strategic Road Network (SRN). As such, an Active Travel Zone (ATZ) Assessment has been undertaken to assess the local walking, cycling and equestrian route connections.

#### 7.2 Extent of Study Area

7.2.1 The ATZ assessment has focused upon the potential of the underpass tunnel within the site, and connections to the South Downs Way and Downs Link active travel routes. The extent of the study area is indicated in **Figure 21**.

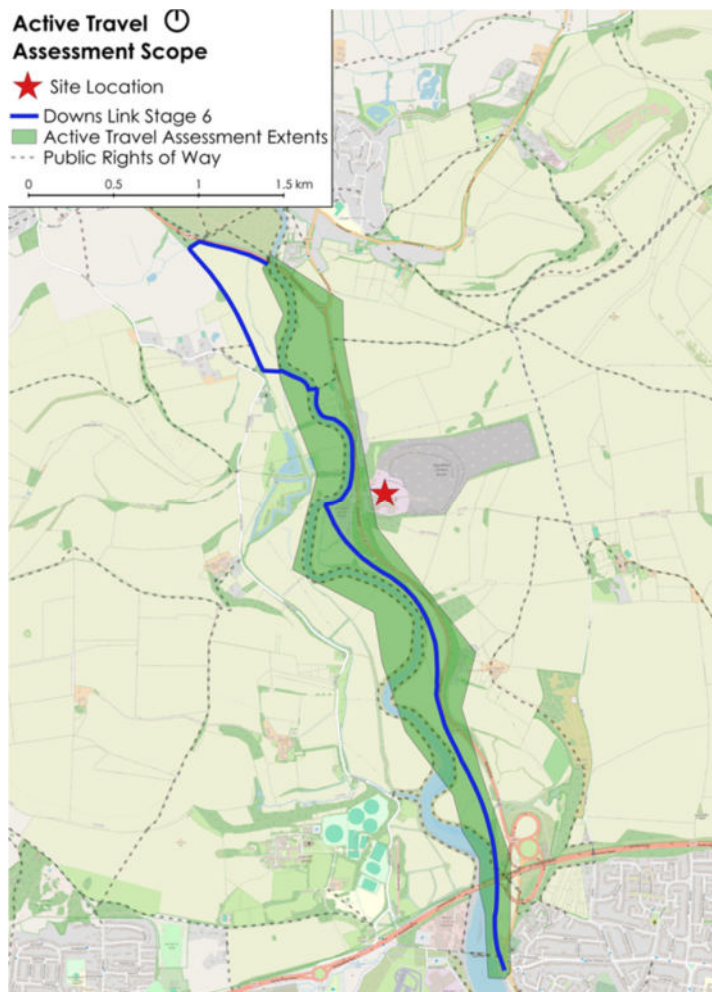


Figure 21 - Extent of ATZ Assessment

## Transport Assessment

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### 7.3 On-Site Appraisal

#### Underpass Tunnel

- 7.3.1 As discussed in **Section 3**, the eastern and western sections of the site are connected via a tunnel underpass of the A283. The existing underpass measures 4.2m in height which is sufficient to permit all anticipated HGV traffic to pass between both of the land parcels which form the combined site. The total width of the underpass measures 5.65m in width which comprises a 4.2m wide carriageway and a 1.45m wide pedestrian footway.
- 7.3.2 It is industry best practice that a pedestrian footway should ideally measure at least 2m in width, particularly where one of the edges abuts a solid wall. There is potential to restrict the working carriageway to a width of 3.5m to allow the pedestrian footway to be widened to 2.15m. This would provide a less intimidating pedestrian environment for residents, employees and visitors travelling between the two land parcels on foot.
- 7.3.3 It is recognised that there would be benefit in widening the tunnel underpass both in terms of permitting two-way vehicular operation and in providing a shared use pedestrian/cycleway. To allow for two-way vehicular whilst acknowledging the tunnel walls, a minimum desirable combined width of 9m could be provided subject to a feasibility appraisal. This would comprise a 5.5m-6m carriageway width and a 3-3.5m footway/cycleway width.
- 7.3.4 Alternatively, any minor widening works could be focused upon achieving a shared-use pedestrian/cycleway measuring between 3m and 4m in width.
- 7.3.5 A further investigation of the appraisal of widening the underpass is recommended following this Transport Study by a qualified Structural Engineer. This would allow for a feasibility appraisal and cost/benefit analysis to be undertaken weighing up the merits of the widening works against the economic and environment cost implications.

### 7.4 Access to Existing Public Transport Infrastructure

- 7.4.1 The condition and location of the bus stops adjacent to the northern site access junction with A283 is described in **Section 6**.
- 7.4.2 In improving pedestrian access from the site to the bus stops, the following improvement measures are proposed:
- i) Widening of the pedestrian footway connecting to the southbound bus stop to a minimum of 2m in width.
  - ii) Provision of a formal pedestrian access to the northbound bus stop from the western section of the site. In addition to providing hardstanding at the bus stop, a footpath link into the site would be provided ensuring a design in accordance with the DfT guidance document *Inclusive Mobility, 2021* to ensure the change in levels from the carriageway to the site can be adequately addressed.
  - iii) Provision of a pedestrian refuge island with dropped kerbs and tactile paving; and

## Transport Assessment

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iv) Provision of bus shelters and potentially real time information at the bus stops.

7.4.3 The proposed pedestrian infrastructure measures in improving safe access to the bus stops from both sides of the site is shown in drawing **SCW-RGP-XX-XX-DR-T-002** contained at **Appendix F**.

### 7.5 The Downs Link

7.5.1 The Downs Link is a 37-mile (59km) shared-use route linking the North Downs Way in Surrey with Shoreham-by-Sea in West Sussex. The Downs Link provides a long-distance route for walkers, horse riders and cyclists which follows two disused railway lines. The Downs Link is broken into six separate stages with the southernmost section (Stage 6) connecting Bramber/Steining with Shoreham-by-Sea, a distance of approximately 6.6km.

7.5.2 The Downs Link between Steining and Shoreham is a mixture of paved (asphalt) and unpaved, compacted gravel/stone sections, which can be uneven and muddy in wet weather. The entire section is not fully paved at present.

7.5.3 Paved Sections: The path along the Adur River embankment leading into Shoreham is described as smooth asphalt. **Figure 22** indicates the change in surface material adjacent to the Old Shoreham Toll Bridge.



**Figure 22 - Change in Downs Link Surface Finish - Asphalt to Compacted Gravel**

## Transport Assessment

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- 7.5.4 The extent of the Downs Link assessed has focused upon the section adjacent to the Shoreham Cement Works site, extending south to the Old Shoreham Toll Bridge and close to the junction of A283 Old Shoreham Road and Upper Shoreham Road. This section of the Downs Link measures approximately 2.9km in length and is typically 2m to 3m in width consisting of a compacted gravel or "rammed stone" base, which varies in quality.
- 7.5.5 The existing compacted gravel surface treatment is most suited for cyclists on hybrid or gravel bikes but may be slightly challenging and uncomfortable for cyclists wishing to use road bikes along this section.
- 7.5.6 The following Figures indicate the current condition of the Downs Link and adjoining public footpath connections.



*Figure 23 - Downs Link - North of Shoreham Cement Works Site (Passing beneath the A283)*

## Transport Assessment



**Figure 24 - Downs Link - Adjacent to Shoreham Cement Works Site**

7.5.7 It is evident from **Figure 24** that the western section of the Shoreham Cement Works Site directly abuts the Downs Link with no discernible change in levels or gradient. The western site perimeter abuts the Downs Link for a distance of circa 500m which offers the opportunity of providing one or more direct pedestrian and cycle connections from the site to the Downs Link.



**Figure 25 - Typical Downs Link Section South of the Site**

7.5.8 **Figure 25** shows a typical section of the Downs Link to the south of the SCW site. The width of the Downs Link is generally at least 3m in width along this southern section, particularly as the Adur River valley widens out to form the Adur Estuary.

## Transport Assessment



**Figure 26 - Southern Terminus of Downs Link**

- 7.5.9 The southern extents of the Downs Link assessed as part of this ATZ assessment adjacent to the Old Shoreham Toll Bridge as shown in **Figure 26**. The Downs Link to the south of this point takes on an asphalt surface finish towards Shoreham town centre.
- 7.5.10 The images shown in **Figure 26** indicates a toucan crossing facility in providing a safe crossing point of the A283 from the Downs Link towards the town centre. St. Nicholas Lane is marked out as a section of on-street cycle route on a lightly trafficked road in connecting the Downs Link to Upper Shoreham Road.
- 7.5.11 The bus stop (Red Lion) adjacent to the crossing is served by a total of five bus services and adjacent to the bus stop, Sheffield cycle stands are provided. A bicycle repair station is provided, and cycle hire bikes are also present.
- 7.5.12 Shoreham cycle hire uses Donkey Republic, a dockless bike-sharing system with pickup/drop-off points located throughout Shoreham including the Adur Ferry footbridge.

## 7.6 Local Public Rights of Way (PRoW) Network Review

- 7.6.1 **Figure 27** provides a summary of the PRoW network within the vicinity of the site as obtained from the West Sussex County Council Interactive PRoW map.
- 7.6.2 The plan shows that there is a footpath on both sides of the River Adur. Footpath number 3139 runs along the east side of the river and footpath number 2049 runs along the western side of the river.

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- 7.6.3 The nearest crossing point across the River Adur is the footbridge approximately 650 metres north of the site. This is where path number 3209 intersects the two above mentioned footpaths. At this point, the South Downs Way traverses the River Adur, and then the A283.
- 7.6.4 The South Downs Way is a 160-kilometre-long national and bridleway that runs between Winchester in Hampshire and Eastbourne in East Sussex.

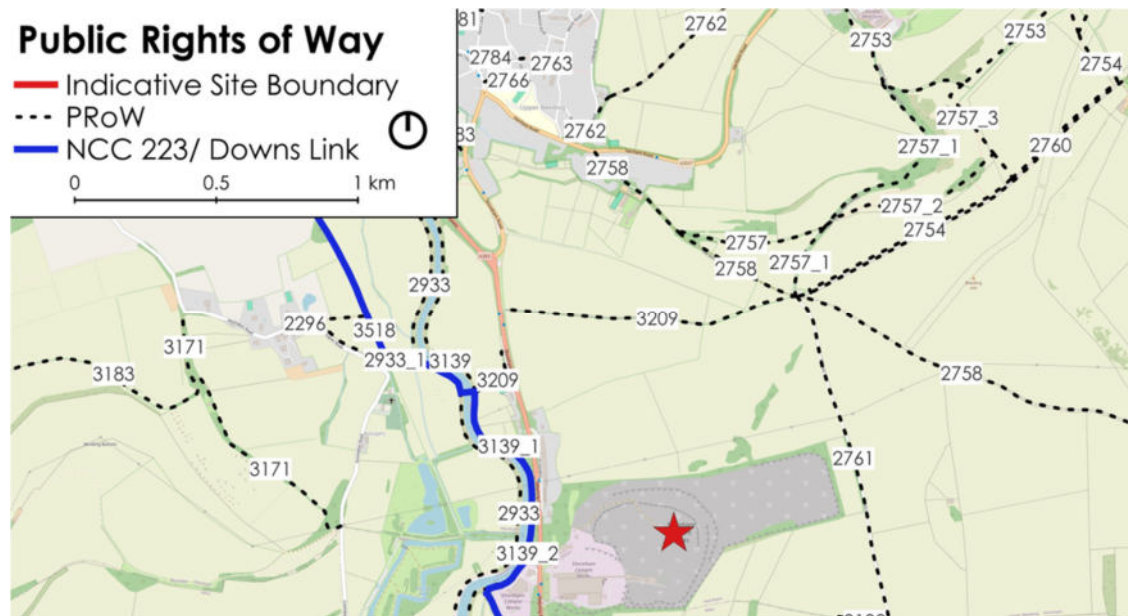


Figure 27 - PRoW Network Adjacent to Site

- 7.6.5 The South Downs Way (UPB-3209) crosses the A283 approximately 800 metres north of the site. The accesses on either side of the carriageway are staggered, approximately 90 metres distance.
- 7.6.6 There is an approximately two-metre footway on the eastern side of the carriageway, with a pedestrian crossing facility recently implemented consisting of a pedestrian refuge island with dropped kerbs and tactile paving to either side of the carriageway as indicated in **Figure 28**.

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*Figure 28 - Pedestrian Crossing of the A283 Connecting the Downs Link to the South Downs Way*

- 7.6.7 Approximately 50m to the north of the connection with the South Downs Way, the pedestrian footway terminates and is replaced with a more informal walking path as indicated in **Figure 29**.



*Figure 29 – Informal Footpath adjacent to A283*

## Transport Assessment

7.6.8 The informal footpath continues beyond the junction of A283 Steyning Bypass/Shoreham Road towards the village of Upper Beeding. The entire section of informal footpath measures approximately 370m in length. The widening and formalising of this footpath into a footway would serve to provide an enhanced pedestrian connection between the urban settlement boundary of Upper Beeding with the South Downs Way, and Shoreham Cement Works Site via the Downs Link.

### 7.7 Informal Crossings of the A283

7.7.1 Whilst it is possible to cross beneath the A283 via the Downs Link (see **Figure 23**), there are also informal crossing points of the A283 which connect to the public footpaths UBP-3139, and BRA-2933 as shown within **Figure 29**.



**Figure 30 - Informal Crossings of A283 with Public Footpaths**

#### Clays Hill Roundabout

7.7.2 Whilst this junction and section of the Downs Link was outside of the extent of the ATZ catchment area, following a review of this junction as part of the highway safety assessment, proposed pedestrian/cycle crossing improvements have been investigated.

7.7.3 As discussed in the previous section, The Downs Link is traffic free between Shoreham up to the A283/Clays Hill roundabout. Pedestrians and cyclists are required to cross The Street and Castle Lane to continue along the Downs Link northbound towards Steyning and Bramber.

7.7.4 Whilst tactile paving is provided in the informal crossing of Castle Lane, this is missing at the informal crossing point of The Street as indicated in **Figure 31**.

## Transport Assessment



**Figure 31 - Proposed Tactile Paving**

7.7.5 It is proposed that tactile paving would be provided as indicated in the Proposed Active Travel Improvements Plan as contained within **Appendix G**.

### 7.8 Summary of Active Travel Improvements

7.8.1 Following the ATZ assessment, the following potential active travel infrastructure improvements have been proposed:

- i) Widen the underpass tunnel footway from 1.45m to 2.15m and subsequently reduce the width of the carriageway by 0.7m.
- ii) Provision of a pedestrian refuge island with dropped kerbs and tactile paving of the A283 adjacent to the northern site access
- iii) Widening of the pedestrian footway connecting to the southbound bus stop to a minimum of 2m in width.
- iv) Provision of a formal pedestrian access to the northbound bus stop from the western section of the site and a footpath link into the site suitable for those with restricted mobility.
- v) Provision of bus shelters and potentially real time information at the bus stops.
- vi) Improvements to the surfacing of the Downs Link. By providing an asphalt finish, the Downs Link would be made more accessible, including for people who use mobility aids, and would encourage active travel throughout the year. The implementation of low-level, ecologically friendly lighting could also serve to encourage

## Transport Assessment

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pedestrians and cyclists to use the Downs Link during mornings and evenings in the winter months.

vii) Enhancing the informal footpath adjacent to the A283 and A2037 Shoreham Road towards the village of Upper Beeding.

viii) Providing tactile paving at the Clays Hill roundabout of The Street.

7.8.2 There is also the potential to improve the public footpath crossings of the A283 as indicated in **Figure 31**. However, it is also possible to cross beneath the A283 from the Downs Link (see **Figure 23**) as an alternative option to crossing the road at-grade.

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### 8 PROPOSED SUSTAINABLE TRANSPORT STRATEGY (STS)

- 8.1.1 RGP's Preliminary Vision includes targeting different journey lengths and offering appropriate alternative sustainable options and cost-effective solutions to those specific journeys.
- 8.1.2 A more holistic approach in accommodating journeys by a range of modes needs to be adopted to unlock the greatest development potential of the Shoreham Cement Works site, reducing private car-based trips to a minimum and ensuring that the proposed development can be genuinely considered to constitute sustainable vision-led development.
- 8.1.3 The development will generate new movements by a range of transport modes, including walking, cycling and public transport trips in addition to car trips. The ability for some of this travel demand to be 'internalised' within the boundary of the development has the ability to reduce the overall need to travel by providing complementary essential services and local community facilities within the site.
- 8.1.4 It is anticipated that the neighbourhood centre would include a café, small food retail shop, nursery (accommodating nursery age children associated with both residents and employees of the development), community hall, a pharmacy and non-food retail unit.
- 8.1.5 Changing shopping patterns and hybrid working have also had an impact upon the way people travel as demonstrated within the A283 traffic flow trend analysis in **Figure 35** of **Section 9** of this TA report.
- 8.1.6 In delivering an exemplar sustainable mixed-use development within the Shoreham Cement Works site, the Sustainable Transport Strategy would be coupled with parking restraint measures in effectively reducing the incentive to own and use a private car as the predominant form of transport in favour of alternative, more sustainable modes of transport.
- 8.1.7 The Sustainable Transport Strategy would subsequently consist of the following measures:
- i) Car parking/car ownership restraint measures;
  - ii) Provision of car club/car pool membership
  - iii) Enhanced public bus service;
  - iv) Provision of a dedicated shuttle bus service;
  - v) Active Travel Improvements;
  - vi) E-bike provision;
  - vii) Cycle hire scheme;
  - viii) Provision of an on-site Mobility Hub; and

## Transport Assessment

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- ix) The introduction of hard and soft measures as part of the implementation of a site wide Travel Plan.

### 8.2 On-site Parking Restraint

- 8.2.1 Zonal parking standards are set out within the policy document, "*West Sussex County Council: Guidance on Parking at New Developments, September 2020*". "The parking standards have been developed based on Census 2011 car ownership and the application of Temprow growth factors to 2033. The Shoreham Cement Works site is located in the Buckingham ward within the Adur district 2 and is currently classified as Parking Behaviour Zone 2.
- 8.2.2 In order to achieve a meaningful shift away from the predominance of single occupancy private car trips, a more radical approach to parking within the site is proposed. Recognising that a proportion of trips will be made by private car, it is proposed that one allocated parking space be provided for each residential dwelling.
- 8.2.3 Similarly, parking associated with the employment uses would be restrained to deter single occupancy private car use. Parking could be allocated on a needs basis with the potential to prioritise parking for regular car sharers.
- 8.2.4 Whilst acknowledging that the proposed level of on-site parking would deviate from the WSCC parking standards, the unique characteristics of the site being within the South Downs National Park, coupled with the robust choice of alternatives to multi-car private ownership (per household) would enable this more restraint-based parking strategy to be implemented. Furthermore, future residents and employees of the site would be made fully aware of the sustainable travel credentials of the site from the outset in facilitating their decision to buy/locate to the site.
- 8.2.5 Sustainable transport interventions will be embedded within the overall site masterplan and secured via planning conditions or obligations at application stage.
- 8.2.6 Visitor parking would also need to be carefully considered and as such it is suggested that visitor parking would be limited within the development. Visitor parking could be pre-booked by residents when they are expecting guests for an evening or weekend. This would avoid the effect of cars poorly parked within the site's estate roads.

### 8.3 Car Club/Carpool Vehicles

- 8.3.1 The level of parking provision would be supplemented by the use of an on-site carpool fleet that could be booked at short-notice and used by residents and employees of the site, alike. A total of 4-5 carpool vehicles would be provided from first occupation of the site, with further vehicles added should this be required to meet increased demand. The carpool fleet could be distributed strategically throughout the site to ensure all residents are within 50 metres of a vehicle or alternatively provided centrally at the mobility hub.
- 8.3.2 The carpool fleet could be operated by Enterprise car club which currently operates within Brighton & Hove, Shoreham, Lancing and Worthing and are therefore the most likely on-site operator. The carpool fleet could involve a corporate plan arrangement for the employment uses within the site in addition to a residential car club membership package.

## Transport Assessment

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8.3.3 Three years free membership and driving credits would be provided to residents and employees of the site as part of the implementation of the site-wide Travel Plan, following which attractive rates would be retained.

8.3.4 Car sharing amongst both residents and employees of the site would also be promoted and encouraged within the Travel Plan. The sense of community when residents move into the development would assist with finding sharers since households would 'buy in' to the environmental lifestyle and therefore be like minded and more aware of their neighbours.

### 8.4 Public Transport

#### Proposed Enhanced Public Bus Service

8.4.1 As reported within the ADL Transport Assessment report, it is anticipated that the frequency of the Number 2 bus service which currently operates between Steyning and Shoreham on an hourly basis, would be increased to a 30-minute service or potentially even a 15-minute service (in lieu of a shuttle bus service).

8.4.2 In increasing the frequency of bus service 2 from hourly to every 30 minutes between Shoreham station and Steyning via the Shoreham Cement Works site, on the basis of a circa 23-minute journey time in each direction, this would require one additional bus to operate this level of increased service frequency.

8.4.3 Whilst the specific costs of pump-priming the operation of an additional bus would be subject to detailed discussions with the local bus operator, Brighton & Hove Buses, an indicative cost estimate of **£130,000 per bus per year** has been assumed. This is based on estimates developed from other strategic residential schemes that RGP are currently advising on.

8.4.4 This service currently operates at a frequency of every 15 minutes between Shoreham and Rottingdean via Brighton & Hove and this increase in frequency (along the Steyning to Shoreham section) through pump priming and on-site bus patronage revenue is considered to be commercially viable.

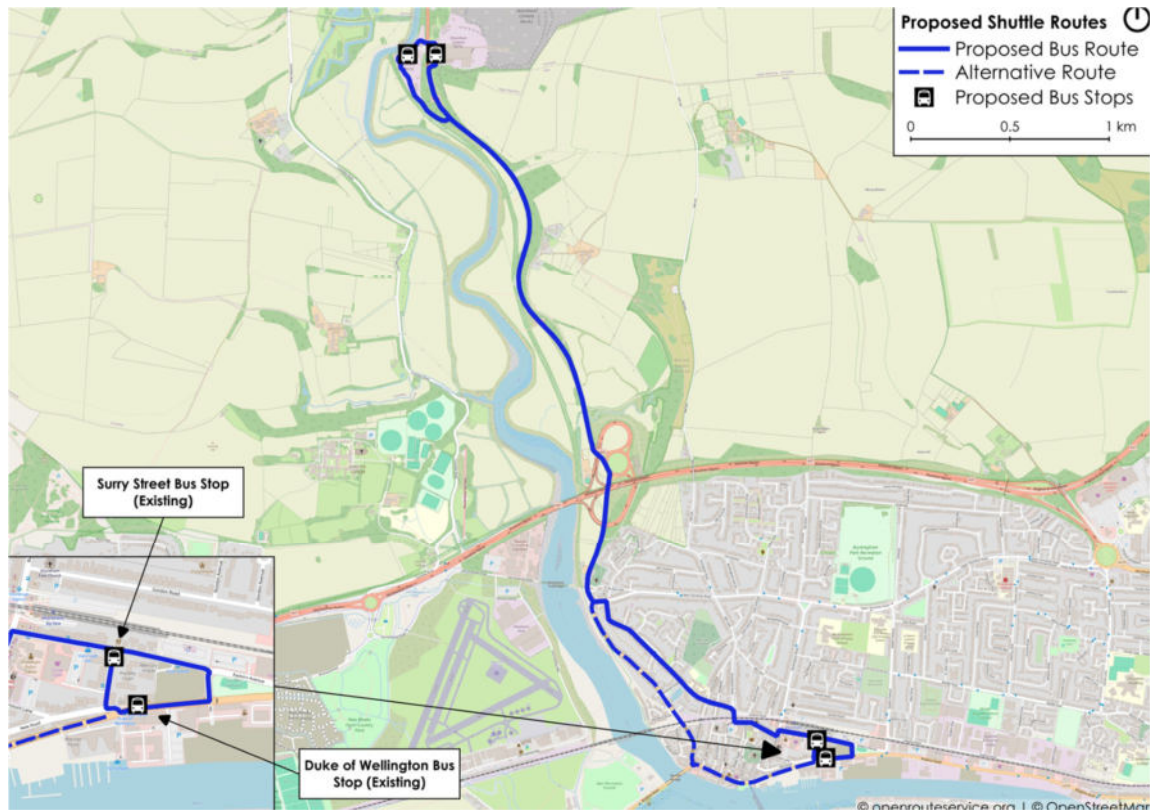
8.4.5 It is anticipated that the existing bus stops adjacent to the northern site access on A283, would be upgraded with the provision of increased hardstanding, bus shelters with real time information, an informal pedestrian crossing of the A283 and pedestrian footpaths connecting the bus stops to the eastern and western sections of the site. These improvements are provided within drawing **SCW-RGP-XX-XX-DR-T-002** contained within **Appendix F**.

#### Proposed Shuttle Bus Service

8.4.6 In addition to increasing the frequency of the Number 2 bus service, a dedicated shuttle bus service would connect the site with nearby transport hubs which would include Shoreham rail station and the bus stops on Shoreham High Street. The service would provide employees of the business park, and residents of the development with an efficient and eco-friendly commute. The journey time between the site and Shoreham rail station is circa 10 minutes.

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- 8.4.7 The cost of operating this service would be subsidised by allowing residents, visitors and employees of the site to use the service for a small charge. The complementary uses would allow residents to travel to Shoreham railway station/High Street as part of their daily commute before the shuttle bus collects employees of the business park for the return leg of the route, and vice versa in the evening. Local employers include Brighton Airport, Panattoni Park and the employment centres within Worthing, Brighton & Hove, Lancing and Shoreham.
- 8.4.8 There is potential for the shuttle bus to be a fully electric vehicle and equipped with real-time bus trackers through a dedicated app. The shuttle bus would be available to both residents and employees with the app booking system allowing management of the ticket pricing i.e. funded for employees through a service charge.
- 8.4.9 It is anticipated that in addition to the existing bus stops adjacent to the site on A283, additional bus stops would be provided within the site adjacent to the neighbourhood centre. **Figure 32** indicates the potential shuttle bus service route alignment.



**Figure 32 – Proposed Shuttle Bus Service Route**

- 8.4.10 It is noted that consistent journey times along the proposed bus route options as illustrated in **Figure 32** could be affected by delays associated with traffic congestion along Shoreham High Street and delay associated with the rail level crossing on Buckingham Road being down.

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- 8.4.11 Further journey time analysis of routes and discussions with the main bus operators within Shoreham and the wider region would need to be undertaken in fully determining the number of shuttle buses required to accommodate certain bus service frequencies.
- 8.4.12 The typical journey time from Upper Beeding to Shoreham rail station is 19 minutes via the number 2 bus service. A shuttle bus with limited stops would observe a slightly reduced journey time and therefore a 20-minute journey time, factoring in a few minutes layover, has been assumed to reasonably reflect the proposed shuttle bus journey time between the site and Shoreham rail station.
- 8.4.13 **Figure 33** sets out the number of shuttle buses required to achieve a frequency of every 30 minutes, every 20 minutes and every 15 minutes, respectively, based upon a return journey time of 40 minutes.

Service Frequency	Combined Return Journey Time	Number of Shuttle Buses Required
Every 30 Minutes	80 minutes (2 x 40)	2
Every 20 Minutes	120 minutes (3 x 40)	2
Every 15 Minutes	160 minutes (4 x 40)	3

**Figure 33 – Shuttle Bus Service Operational Requirements**

- 8.4.14 The number of buses required to operate the service is simply calculated by dividing the total combined return journey times by 60 minutes. Based upon these calculations, the most cost-efficient operation would be a service frequency of every 20 minutes which could be undertaken by operating two shuttle bus vehicles simultaneously. A 15-minute service frequency would require a third bus to be in operation.

## 8.5 Active Travel Infrastructure Improvements

### Active Travel Strategy

- 8.5.1 **Section 7** of this report sets out the proposed active travel improvements recommended following the ATZ Assessment undertaken. The improvements to the Downs Link will form the key component of the STS in terms of active travel improvements. Further details of the proposed Downs Link improvements are discussed below.

## 8.6 Downs Link Improvements

- 8.6.1 As set out within the Proposed Active Travel Improvements Plan in **Appendix G**, it is proposed that improvements to the surfacing of the Downs Link could offer huge benefit both to residents, employees and visitors of the development and to the wider public.
- 8.6.2 In providing an asphalt finish, the Downs Link would be made more accessible, including for people who use mobility aids, and would encourage active travel throughout the year. It is anticipated that a 2m wide section of the Downs Link would be provided with a sealed surface finish (asphalt) along a section measuring approximately 2.9km in length between the western perimeter of the site (which abuts the Downs Link) extending south as far as the Old Shoreham Toll Bridge (see **Figure 22**).

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- 8.6.3 The improved surface treatment would benefit users and visitors to the site in providing a smoother surface would make for shorter journey times in requiring less exertion. The improvement to the surface would also provide a genuine all-weather surface that would not suffer from muddy sections and be less susceptible to pooling water during wet weather.
- 8.6.4 The implementation of low-level, ecologically friendly lighting could also serve to encourage pedestrians and cyclists to use the Downs Link during mornings and evenings in the winter months.
- 8.6.5 An environmentally friendly, motion activated, low-level lighting strategy will be investigated along the Downs Link between the site and Shoreham. This could be time-limited to facilitate cycle commuting trips particularly during the winter months. A case study example within a similarly ecological sensitive location is provided here: <https://www.schreder.com/en/projects/sustainable-self-supporting-lighting-mandel-bike-path>. A further UK based example is provided here: <https://www.schreder.com/en/projects/smart-lighting-protects-dark-skies-around-keele-university>.
- 8.6.6 Based on a typical cycle speed of 12mph or 20kph along the resurfaced 2.9km section of the Downs Link, this would result in a cycle journey time of approximately 9 minutes. This journey time would be further reduced through the use of e-bikes.
- 8.6.7 Commuting journeys between the site, Shoreham station and the employment areas within Shoreham and Lancing could easily be undertaken by cycle with journey times comparative or indeed better than journeys by private car or bus achievable.
- 8.6.8 The addition of low-level lighting would provide a realistic, practical commuting mode choice throughout the year.
- 8.6.9 As part of the Downs Link enhancements, it is envisaged that an LTN 1/20 compliant shared-use or segregated (if feasible) cycleway to accommodate pedestrian and cycle journeys to and from the site via the Downs Link could be provided. The extend to which this could be delivered within the underpass tunnel would be dependent on the structural appraisal work required in assessing the feasibility of any proposed future tunnel widening works.

## 8.7 Cycle Hire Scheme

- 8.7.1 It is anticipated that the existing Donkey Bike cycle hire scheme which operates within Shoreham: <https://www.adur-worthing.gov.uk/leisure/bike-hire/>, could be extended to include some provision within the development site.
- 8.7.2 The on-site provision could include the availability of e-bikes for hire in addition to the standard cycle hire scheme.
- 8.7.3 In conjunction with the cycle hire would be a cycle maintenance stand allowing people to pump up tyres and/or fix punctures. The standard cycle and e-bike hire would complement the e-bikes provided to each of the residential households and would also encourage cycle journeys between Shoreham and the site for commuting trips to/from the business park units.

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- 8.7.4 The on-site employment uses would also be encouraged to provide the use of e-bikes and folding bikes for staff and visitor use. It is anticipated that this would be implemented as part of a Workplace Travel Plan associated with the respective future site employment occupiers.

### On-site Mobility Hub

- 8.7.5 A mobility hub would be provided within the neighbourhood centre and adjacent to the bus stop serving the dedicated shuttle bus service. The mobility hub would comprise Sheffield stand cycle parking, mobility hub totem and wayfinding, planters, and a parcel locker.

- 8.7.6 The provision of Brompton bikes and lockers within the mobility hub would also be considered in accommodating onward trips by rail from Shoreham station. It also envisaged that the mobility hub would include EV Charging points for both EV vehicles and bikes.

### Travel Plan Measures

- 8.7.7 In addition to the active travel, public bus, shuttle bus, car club/car share, and other associated measures to encourage travel to and from the site by sustainable modes, the following Travel Plan measures are anticipated to be implemented:

#### For Residents

- i) Provision of Welcome Packs to provide residents/employees with information on Walking / Cycling Routes, Public transport and shuttle bus service information.
- ii) Car Club membership and driving credit
- iii) E-bike provision (one per household provided)

#### For employees

- i) Local Recruitment Policy
- ii) Information on nearby facilities, Walking / Cycling Routes, Public transport and shuttle bus service information.
- iii) Bicycle Purchase Scheme
- iv) Cycle Parking / Storage
- v) Bicycle Maintenance and puncture repair kit
- vi) Bicycle Security
- vii) Interest Free Travel Loans
- viii) Betterpoints Initiative

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- ix) Car Sharing and Database
- x) Website Information
- xi) Travel Noticeboard
- xii) Priority Parking for Car Sharers

### 8.1 Cost Estimate for Implementing STS

8.1.1 A cost estimate breakdown of delivering the various aspects of the Sustainable Transport Strategy is set out within **Appendix H**. A summary breakdown is provided below.

#### Downs Link

8.1.2 In surfacing 5,800sqm (2m x 2,900m) of Downs Link in asphalt, an indicative mean cost of £730,000 has been calculated which would include the implementation of low-level lighting at 30m intervals.

#### Other Active Travel Improvements

8.1.3 The Active Travel Infrastructure improvements as set out in **Appendix G** includes the widening of the existing footpath by 1m for a length of 370m along the footpath which connects the South Downs Way to the existing footway on A2037 Shoreham Road at the edge of Upper Beeding village. The widening and formalising of this footway has been estimated at **£41,600**.

8.1.4 The introduction of tactile paving within the approach to the Clays Hill roundabout of The Street has been estimated at **£10,000** dependent on any potential widening of the central refuge island.

8.1.5 The introduction of the pedestrian refuse island, hardstanding, bus shelters with real time information in addition to dropped kerbs and tactile paving has been estimated at **£35,000**. The footpath connecting the northbound bus stop to the western side of the site would require a topographical survey to understand the level changes and arboricultural constraints. In assuming a 5m change in levels, a 3m footpath measuring circa 100m in length has been costed. An indicative cost of **£35,000** has been estimated.

#### Shuttle Bus Service

8.1.6 The cost of operating two shuttle bus services, in providing a service frequency of 3 buses/hour has been estimated as between £216,000 and £260,000 per annum, depending on the capacity of the vehicle. The higher figure represents a 49-seat vehicle.

8.1.7 In scenario 2, the full occupation of the development could give rise to up to 132 arrival bus trips in the weekday morning peak hour. The 49-seat vehicle would provide sufficient capacity to accommodate the forecasted bus trips without any displacement on to public bus services.

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8.1.8 The cost of operating the service would be an ongoing cost although it is anticipated that funding would be through a mix of direct business contributions (companies paying for services for staff), fare revenue, and potentially local authority support via grants or tendered contracts.

8.1.9 It has been assumed that a s106 funded contribution to this service would be provided for either a 3 year or 5-year period of £100,000 per annum. Total cost of between **£300,000** and **£500,000**.

### Public Bus Service (Bus Service 2)

8.1.10 The cost of operating an additional bus service at £130,000 per annum for a period of 3 years has been assumed with the calculations. Total cost of **£390,000**.

### Downs Link

8.1.11 In surfacing 5,800sqm (2m x 2,900m) of Downs Link in asphalt, an indicative mean cost of **£730,000** has been calculated which would include the implementation of low-level lighting at 30m intervals.

### E-bike Provision

8.1.12 The provision of one e-bike per household would equate to a total of 400 e-bikes. Whilst an e-bike can cost in excess of £1,000, it is anticipated that a wholesale bulk order would reduce the unit cost to circa £500 per e-bike.

8.1.13 Total cost would therefore be **£200,000**.

### Car Club Membership and credit

8.1.14 The cost of car club membership and driving credits for both residents and the provision of corporate membership for the commercial units would need to be further refined once the specific number of vehicles on-site is known and the specific development mix has been fine tuned.

8.1.15 However, based upon a cost of £10,000 per car club vehicle provided and a subsequent cost of £100 per membership, a total cost of **£90,000** is assumed. The cost of corporate car club membership is assumed to be funded by direct business contributions.

### Total Costs of Implementing the STS

8.1.16 The combined costs of implementing the STS assuming financial contributions towards the shuttle bus for a 5-year period is **£2,031,600**. The costs are presented within **Figure 34**.

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<b>Measure</b>	<b>Cost (£)</b>
Downs Link	£730,000
Clays Hill Tactile Paving	£10,000
A2037 /A283 Footway Enhancement	£41,600
Bus Stop Infrastructure Improvements	£70,000
Shuttle Bus	£500,000
Enhanced Bus Service 2	£390,000
Car Club Membership and Operation	£90,000
E-bike Provision	£200,000
<b>Total</b>	<b>£2,031,600</b>

**Figure 34 – Cost Estimate for Implementing the STS Measures**

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### 9 BASELINE TRAFFIC REVIEW

- 9.1.1 Following a meeting held between SDNPA and RGP on Wednesday 29th October 2025, it was evident that newly available observed traffic count data that would suitably cover the extent of the highway network to be assessed, would not be readily available since the ADL report was issued in April 2022.
- 9.1.2 In order to establish the change in traffic volumes along the A283, an analysis of traffic count data from the DfT count location 56687 on A283 has been undertaken.
- 9.1.3 In order to establish the change in traffic volumes along the A283, an analysis of traffic count data from the DfT count location 56687 on A283 was undertaken and presented within TN01 (see Appendix A). The most recently available data was from years 2016, 2020 and 2024, respectively.
- 9.1.4 The DfT traffic flow data indicated an overall 12.6% reduction in total vehicular traffic between 2016 and 2024. Overall traffic volume trends indicate that traffic volumes remain lower in 2024 than those traffic flow volumes recorded in 2016.
- 9.1.5 Following the submission of TN01 and discussions with Guy Perfect of WSCC, RGP reviewed the WSCC permanent traffic count data on the A283 to ensure that the trend in traffic volumes, i.e. no growth between 2016 and 2025 could be further evidenced.
- 9.1.6 A review of weekday, two-way traffic volume data on the A283 was undertaken. For consistency, a similar week each year, typically in early November was chosen. The extracted survey data is contained at **Appendix I. Figure 35** shows the overall trend analysis for two-way traffic volumes recorded on the A283 by WSCC during the weekday morning and evening peak hours and over the course of a typical weekday.

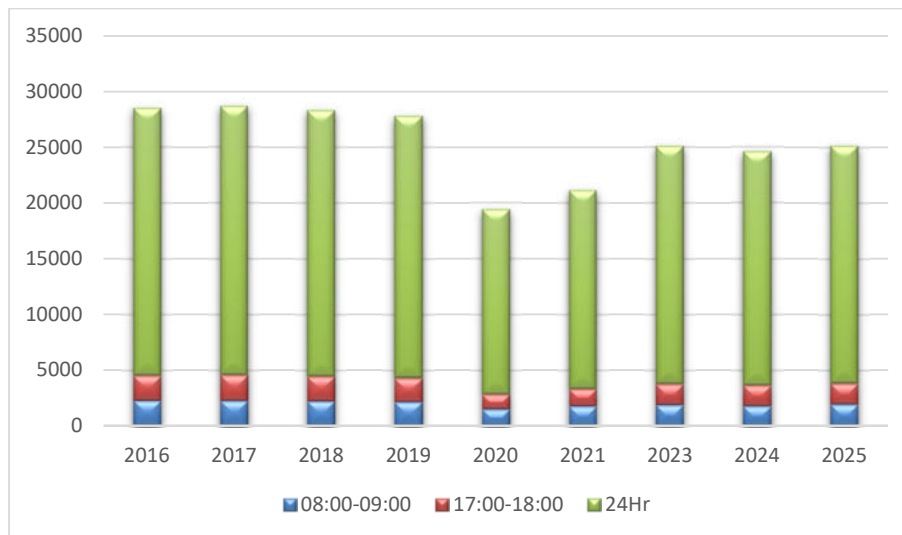


Figure 35 - WSCC Traffic Count Data Comparison - 2016 to 2025

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9.1.7 The trend in recorded traffic volumes is presented in **Figure 35** and indicates that recorded traffic flows in 2025 were 11% lower than those observed in 2016. The application of no growth between 2019 (the ADL Study base year) and 2025 is therefore considered a robust assumption.

9.1.8 The 2019 base year traffic flow data applied within the ADL Study (April 2022) has subsequently been applied as a 2025 base year assessment within this Transport Study.

### 2025 to 2042 Future Base Year Traffic Growth

9.1.9 In establishing a future year baseline assessment for 2042, RGP has undertaken a review of the Tempro NTEM 8.0 Growth Scenarios (DfT National Road Traffic Projections, 2022). The NTEM version 8 includes several different economic growth scenarios including a regional and behavioural change scenario from 2025 to a 2060 future horizon year.

9.1.10 The “Core Scenario” includes 'firm and funded' government policy, for example, where ambitions are supported by published plans or funded policies. Relationships between the key drivers of demand and road traffic are broadly assumed to continue in line with historical trends and evidence, for example, how drivers respond to changes in fuel costs or how changes in income influence people's travel choices.

9.1.11 In applying the core scenario for the Adur district of West Sussex, a growth factor of 1.073 or an increase in traffic volumes of 7.3% for the period of 2025 to 2042 is identified. RGP have applied a 1.073 growth factor to the 2025 base year flows (extracted from Appendix 6.1 and 6.2 of the ADL report) in establishing the 2042 base year assessment.

9.1.12 This 1.073 growth factor has been applied to Scenario 1 which assesses a “Do Minimum” scenario in assuming the extant use of the site continues and the development proposals do not come forward. This scenario includes the permitted development traffic associated with the existing Shoreham Cement Works Site as set out within Section 5 of this TA report.

9.1.13 These traffic flows have been distributed as per the methodology agreed with WSCC following the submission of the Transport Study Methodology Report (TN1) and are provided diagrammatically as **Appendix J**.

### Do Something – TEMPro Traffic Growth Factor

9.1.14 Following discussions with WSCC, it was agreed that in order to avoid double counting when considering the potential for future growth in traffic volumes on the local highway network associated with committed development traffic, the traffic associated with the development site should be removed from the TEMPro calculations.

9.1.15 In order to undertake this exercise, it was necessary to determine the number of households and employees that would be created as a result of the full occupation of the site. As the development proposes 400 dwellings, a value of 400 households has been applied.

9.1.16 To determine the number of jobs that would be created as a result of the proposed employment land uses provided within the site, the guidance set out in the Employment Density Calculations based upon Homes and Communities Agency Employment Density Guide, November 2015 was applied.

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9.1.17 In each case, it has been assumed that the Net Internal Area (NIA) would equate to 75% of the Gross Floor Area (GFA) for each combined land use class. For the 30,000 sqm of proposed B2/B8 uses, a 50%/50% proportional split has been assumed. The calculation of staff numbers associated with each of the land use types is summarised in **Figure 36**.

Land Type	Use	Floor Area (GFA)	Floor Area (NIA)	Employment Density Ratio (Employees/Sqm)	Anticipated Number of Employees
Industrial Estate (B2)		15,000 sqm	11,250 sqm	1 per 47 sqm	239
Commercial Warehousing (B8)		15,000 sqm	11,250 sqm	1 per 70 sqm	160
Office (a))	(B1)	32,000 sqm	22,500 sqm	1 per 14 sqm	1,600
Total					1,999

**Figure 36 - Anticipated Employees**

9.1.18 TEMPro/NTEM has an alternative assumptions tool which allows the number of households and jobs created by committed development to be factored into future year traffic growth forecasts. The 400 households and 1,999 jobs created by the development were applied and the resulting 2025-2042 growth factor was reduced to a **2.65%** uplift of the 2025 base year flows.

9.1.19 As the land use types associated with the neighbourhood centre are currently unknown and represent a relatively small proportion of the total floor area proposed, this element of the development was excluded from the alternative assumptions assessment within the TEMPro/NTEM calculations.

### Traffic Surveys – Traffic Flows and Speeds

9.1.20 ATC surveys were undertaken at two locations on the A283 within the vicinity of the existing site access junctions.

9.1.21 Automatic Traffic Count (ATC) surveys were conducted in two locations along the A283, immediately to the north of the northern (east land parcel) access and a further ATC located to the south of the southern (west land parcel) access. The ATC surveys were undertaken between 7<sup>th</sup> and 18<sup>th</sup> November 2025.

9.1.22 Unfortunately, the survey company reported that the survey data was compromised owing to what appeared to be tampering of the traffic survey data equipment.

9.1.23 With respect to the Northern ATC site survey, the following traffic data was recorded in both northbound and Southbound directions:

- i) 7<sup>th</sup> November - 11am to 1pm limited traffic flow data and mean and 85<sup>th</sup> percentile data for these time periods available;
- ii) 17<sup>th</sup> November – Mean speeds recorded only between 10am and 11am.

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### Southern ATC survey

- i) Southbound – 7<sup>th</sup> November – 11am to 8pm, 15<sup>th</sup> November – 6pm to 12am, 16<sup>th</sup> November – full day of data, 17<sup>th</sup> November – 00:00 to 11:00.
- ii) Northbound - 7<sup>th</sup> November – 11am to 8pm, 15<sup>th</sup> November – 7pm to 12am, 16<sup>th</sup> November – full day of data, 17<sup>th</sup> November – 00:40 to 11:00.

9.1.24 Whilst the survey data was of limited use, a summary is provided within **Figures 37 and 38**.

Direction	Time Period	5-Day Average Flows	7-Day Average Flows	85 <sup>th</sup> Percentile Speeds	Average Speeds
Northbound	AM Peak	N/A	N/A	47.4	39.7
	PM Peak	N/A	N/A		
	24 Hour	N/A	N/A		
Southbound	AM Peak	N/A	N/A	33.4	40.8
	PM Peak	N/A	N/A		
	24 Hour	N/A	N/A		

**Figure 37 - Survey Data Summary - Northern ATC**

Direction	Time Period	5-Day Average Flows	7-Day Average Flows	85 <sup>th</sup> Percentile Speeds	Average Speeds
Northbound	AM Peak	663	N/A	52.3	46.4
	PM Peak	N/A	N/A		
	24 Hour	N/A	N/A		
Southbound	AM Peak	N/A	N/A	48.3	43.5
	PM Peak	943	N/A		
	24 Hour	N/A	N/A		

**Figure 38 – Survey Data Summary – Southern ATC**

9.1.25 The limited traffic survey data obtained as shown in **Figures 37 and 38** indicates that the southern ATC captured weekday AM Peak hour total traffic flows of 663 vehicles in the northbound direction and 943 vehicles in the southbound direction during the weekday PM peak hour.

9.1.26 As a greater amount of survey data was recorded within the southern ATC, the mean and 85<sup>th</sup> percentile traffic speeds are more credible. It is evident that typical mean and 85<sup>th</sup> percentile traffic speeds are slightly higher in the northbound direction than in the southbound direction on the A283 within the vicinity of the site accesses.

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### 10 PROPOSED DEVELOPMENT LAND USE MIX AND ASSESSMENT SCENARIOS

#### 10.1 Proposed Development - Land Use and Quantum

10.1.1 This Transport Study will assess the following proposed development mix within the site:

- i) 400 dwellings (three-bed houses assumed as an average across the site)
- ii) 32,000 sqm of E(g) offices
- iii) 30,000 sqm of B2/B8 industrial/warehousing
- iv) 4,000 sqm of E(a-f) and F – retail, community space and other facilities to support the on-site residents and employees.

10.1.2 The combined proposed 62,000 sqm of office/commercial/employment uses would constitute a business park.

10.1.3 The 4,000 sqm of land use E and F would provide the typical services and amenities associated with a neighbourhood centre. RGP has assumed that this would consist of a café, small food retail shop, nursery (accommodating nursery age children associated with both residents and employees of the development), community hall, a pharmacy and non-food retail unit.

10.1.4 The neighbourhood centre shops and facilities would provide for residents, employees and visitors to the site, and it is assumed that circa 100% of trips associated with these uses would be internal to the site or form part of a linked trip, e.g. work to home trip may call in at the on-site food shop as part of a commuting journey.

10.1.5 This development scenario is based upon a modified version of Development Scenario 1 within the ADL report.

#### 10.2 Vision and Validate Approach

10.2.1 'Vision and Validate' is the new approach to transport planning and RGP's Preliminary Vision is set out within this bid document. The vision includes targeting different journey lengths and offering appropriate alternatives and cost-effective solutions to those specific journeys.

10.2.2 'Vision and Validate' is focused on the principles of the sustainable travel hierarchy <https://energysavingtrust.org.uk/an-introduction-to-the-sustainable-travel-hierarchy/> in supporting and encouraging active travel and public transport modes through the design of places that are healthy, socially inclusive, and well connected by local services and amenities.

10.2.3 The development will generate new movements by a range of transport modes, including walking, cycling and public transport trips in addition to car trips. The ability for some of this travel demand to be 'internalised' within the boundary of the development may reduce the overall impact slightly by the provision of local community facilities as part of this mixed-use development, for example.

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10.2.4 As part of the study brief, RGP were tasked with developing several plausible trip generation scenarios to apply to the development scenarios in line with TRICs Decide and Provide guidance.

### Scenario Mode Shares

10.2.5 In assessing the impact of the development proposals, two mode share development scenarios have been assessed. In Scenarios 2 and 3, a proportion of vehicle trips have been reassigned to other modes to reflect the impact of the implementation of the Sustainable Transport Strategy (STS) on mode choice.

10.2.6 The reassignment of trips from vehicle trips to active travel modes and public transport reflects the following alternatives to travel by private car offered by the STS:

- i) Improved Downs Link route – improved surface material and potential for lighting;
- ii) On-site standard, folding and e-bike Hire, and e-bikes provided to new residents;
- iii) Shuttle bus service between the site and Shoreham station for residents and employees of the site;
- iv) Enhanced bus service – increased frequency of number 2 bus service from hourly to at least every 30 minutes;
- v) Use of on-site car clubs/car-pooling available to residents and employees of the site. On-site car sharing would also be promoted and incentivised.

10.2.7 Furthermore, a restrictive parking policy within the site would serve to encourage the greater take up of the on-site services and subsequently reduce the likelihood of trips being made by single occupancy private car use being the predominant mode choice.

10.2.8 The application of mode share proportions, trip generation associated with the proposed uses, trip type and the proportion of trips internal to the site is discussed in Section 11 of the TA report.

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### 11 PROPOSED TOTAL PERSON TRIP GENERATION

#### 11.1 Previous ADL Study

11.1.1 The ADL study presented a range of trip rates that were used across the four previous development scenarios in TN1 and the TA. A summary of the previously agreed vehicle trip rates are presented in **Figure 39**.

ADL Agreed Trip Rates	AM Peak			PM Peak		
	Arrivals	Departures	Two-Way	Departures	Arrivals	Two-Way
Residential	0.125	0.385	0.510	0.342	0.135	0.477
Employment (B1/B2/B8)	0.317	0.121	0.438	0.094	0.336	0.430
Local Shop (Use Class F2(a))	11.148	10.983	22.131	11.449	10.258	21.707
Office (Use Class E9g) (i))	1.182	0.138	1.320	0.079	0.843	0.922
Consumption of Food & Drink on Premises (Use Class E(b))	0.000	0.000	0.000	4.987	3.003	7.990

**Figure 39** Previously Agreed Trip Rates as part of the ADL Transport Study

11.1.2 RGP have reviewed the previously agreed trip rates that are relevant to the updated development quantum. RGP accept the use of the Residential TRICS assessment and retail and community use trip rates.

11.1.3 However, for the office land use whilst the trip rates utilised in the previous assessment were relevant at that time. Since the COVID 19 pandemic, travel behaviours have altered with home-based working becoming more prevalent. Therefore, since the previous study, there have been a number of TRICS surveys that have been undertaken which provide more relevant travel behaviours for the proposed Office Use Class.

11.1.4 Furthermore, the trip rates used for the other B1/B2 and B8 land uses are no longer appropriate, given that the proposed use classes are B2 and B8 and not B1.

#### 11.2 Revised Trip Generation Assessment – RGP Study

11.2.1 This Transport Study has assessed the following proposed development mix within the site:

- i) 400 dwellings (three-bed houses assumed as an average across the site)
- ii) 32,000 sqm of E(g) offices
- iii) 30,000 sqm of B2/B8 industrial/warehousing
- iv) 4,000 sqm of E(a-f) and F – retail, community space, and other facilities to support the on-site residents and employees.

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- 11.2.2 The combined proposed 62,000 sqm of office/commercial/employment uses would constitute a business park.
- 11.2.3 The 4,000 sqm of land use E and F would provide the typical services and amenities associated with a neighbourhood centre. RGP has assumed that this would consist of a café, small food retail shop, nursery (accommodating nursery age children associated with both residents and employees of the development), community hall, a pharmacy and non-food retail unit.
- 11.2.4 The neighbourhood centre shops and facilities would provide essential services for residents, employees and visitors to the site, and it is assumed that 100% of trips associated with these uses would be internal to the site or form part of a linked trip, e.g. work to home trip may call in at the on-site food shop as part of a commuting journey.

### 11.3 Traffic Impact Assessment Methodology

- 11.3.1 The trip generation associated with the development quantum detailed above in #### was previously calculated utilising a combination of trip rates utilised in the previous ADL study. Following discussions with WSCC, a total person trip rate for each of the land uses at the proposed development have been developed. Where appropriate the previous total person trip rates in the ADL study have been selected. RGP have also developed updated trip rates where RGP felt that the previous trip rates were not representative of the proposed land uses.
- 11.3.2 The trip rates outlined in this section have been agreed as per RGP Technical Note 1, and ongoing discussions between RGP, SDNPA, WSCC and NH.

### 11.4 Proposed Trip Rates

#### Residential Use Class

- 11.4.1 The residential total person trip rates developed as part of the previous ADL study have been utilised as part of this assessment. The TRICS report is provided in **Appendix K**.

#### Office Use Class

- 11.4.2 The development quantum seeks to provide up to 30,000sqm of Office space, an updated multi modal TRICS assessment has been undertaken to establish the total person office trip rates, based on the following parameters:

- Main Land Use: Employment
- Sub Land Use: Office
- Location: Edge of Town
- Population within 5 miles: 125,001 to 250,000
- Excluded Travel Plans

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- Other: Multi-modal surveys and sites that do not contain any of the B1/B2/B8 use classes.

11.4.3 The TRICS report is provided in **Appendix K**.

### Industrial Estate Use Class

11.4.4 The development quantum seeks to provide up to 30,000sqm of Office space, a multi modal TRICS assessment has been undertaken to establish the office trip rates, based on the following parameters:

- Main Land Use: Employment
- Sub Land Use: Industrial Estate
- Location: Edge of Town

11.4.5 A total of two sites were selected. The TRICS report is provided in Appendix K. The person trip rates are illustrated in **Figure 40**.

11.4.6 RGP initially sought to select a site within TRICS in a freestanding location to most accurately reflect the geographic location type of the site. Applying this search criteria yielded only one site within Yeovil from a survey undertaken in 2019 (reference SM-02-D-01).

11.4.7 Following discussions with Guy Parfect of WSCC Highways and a response from NH to TN01, a comparison of trip rates with those derived from the Edge of Town Industrial Estate sites indicated that the Yeovil site did produce lower trip rates than might ordinarily have been expected. As such, the TRICS assessment was revisited with Edge of Town only sites applied.

11.4.8 The TRICS report is provided in **Appendix K**.

### B8 Warehouse Use Class

11.4.9 The development quantum seeks to provide up to 15,000 sqm of Commercial warehousing floor space, a multi modal TRICS assessment has been undertaken to establish the warehousing trip rates, based on the following parameters:

- i) Main Land Use: Employment
- ii) Sub Land Use: Warehousing (Commercial)
- iii) Location: Edge of Town & Free-Standing

11.4.10 The TRICS report is provided in **Appendix K**. The total person trip rates are illustrated in **Figure 40**.

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- 11.4.11 To determine the proposed trip generation of the site, the total person trip rates derived from TRICS have been applied to the development quantum as set out in **Section 10.1**. The resultant total person trip generation is provided in **Figure 40**.
- 11.4.12 For the purposes of this exercise, it has been assumed that 50% of the combined 30,000 sqm floor space would be provided for an Industrial Estate land use and the remaining 50% as commercial warehousing.

### Total Person Trip Rates

- 11.4.13 A summary of the total person trips rates for each of the main proposed development land uses is provided in **Figure 40**. The trip generation calculations are contained in **Appendix L**

Time Period	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	Arr	Dep	2-way	Arr	Dep	2-way
Residential	0.196	0.769	0.965	0.611	0.227	0.838
Office	1.623	0.197	1.820	0.137	1.394	1.531
Industrial Estate	0.017	0.259	0.276	0.308	0.333	0.641
Warehouse	0.084	0.035	0.119	0.027	0.083	0.11

**Figure 40** Total Person Trip Rates

## 11.5 Proposed Trip Generation

- 11.5.1 As this assessment is focused upon trips that would impact the local highway network external to the site, the uses associated with the neighbourhood centre have been omitted from this assessment. The resultant total person trip generation is provided in **Figure 41**.

Time Period	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	Arr	Dep	2-way	Arr	Dep	2-way
Residential	78	308	386	244	91	335
Office	519	63	582	44	446	490
Industrial Estate	152	36	187	21	60	81
Warehouse	13	5	18	4	12	17
Total	762	411	1,173	313	609	923

**Figure 41 – Total Weekday Peak Hour Person Trips**

- 11.5.2 The development is therefore anticipated to generate 1,173 two-way people trips in the weekday AM peak hour and 923 in the weekday PM peak hour.

## 11.6 Mode Share

### Residential

- 11.6.1 In order to develop the trip generation of the development proposals, the mode share for each land use is to be established.

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- 11.6.2 For the residential land use, the mode share was developed by extracting the mode share percentage from the TRICS multi modal survey which was undertaken by ADL in the previous study. A summary of the mode share proportion is provided in **Figure 42**.

Mode	Mode Share
Underground, metro, light rail or tram	0%
Train	9%
Bus, minibus or coach	5%
Taxi	0%
Motorcycle, scooter or moped	1%
Driving a car or van	73%
Passenger in a car or van	5%
Bicycle	4%
On foot	1%
Other method of travel to work	1%
Total	100%

**Figure 42 – Residential - Mode Share Proportions – Derived from TRICS Surveyed Sites**

- 11.6.3 It is considered that the majority of residential-based trips undertaken during the weekday AM and PM peak hours would be associated with journeys to work. However, a small proportion of non-commuting based trips would also be anticipated such as education and to a lesser extent, leisure and retail-based trips.

### Residential-based Education Trips

- 11.6.4 In terms of residential based education trips, it has been assumed that all nursery trips would be internalised within the site with the provision of a nursery associated with the neighbourhood centre.
- 11.6.5 The Department for Education (DfE) produces national pupil yields from housing development, which show that, across England, the average number of school age children per home is 0.25 primary and 0.13 secondary school pupils. For nursery age children, the DfE average estimate is 0.0631 per home.
- 11.6.6 An initial analysis of the anticipated number of school age children arising from the proposed 400 dwellings could result in circa 25 nursery age, 100 primary age and 52 secondary school age children. There is also the possibility that some employees of the site would also make use of the on-site nursery.
- 11.6.7 It is considered that approximately 80% of education-based trips would be undertaken by either shuttle bus/enhanced bus service, part of a linked car trip associated with home-work commute or involve lift sharing between families within the site.
- 11.6.8 It is anticipated that the shuttle bus service could also cater for school-based journeys within schools in Shoreham (St. Peter's Primary, Swiss Gardens Primary, Shoreham Beach Primary, Herons Dale Primary and Shoreham Academy Secondary schools).

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- 11.6.9 An enhanced number 2 bus service could also accommodate school trips within Upper Beeding, Steyning and Bramber. These include Upper Beeding Primary and Steyning (CoE) Primary in addition to Steyning Grammar School. It is noted that an existing school bus service (740) serves the bus stops outside the SCW site and is associated with Steyning Grammar School.
- 11.6.10 The remaining 20% of vehicle trips amounting to circa 30 two-way vehicle trips would be dedicated primary trips which would form part of the main residential based vehicle trips undertaken during the weekday AM Peak only. The school related pick-up trips would typically occur between 3pm-4pm, which is outside of the weekday PM network Peak (1700-1800).

### Employment – Office

- 11.6.11 For the employment office land use, the mode share was developed by extracting the mode share percentage from the Office multi-modal TRICS assessment, which was developed by RGP. A summary of the mode share proportion is provided in **Figure 43**.

Mode	Mode Share
Underground, metro, light rail or tram	0%
Train	5%
Bus, minibus or coach	6%
Taxi	0%
Motorcycle, scooter or moped	1%
Driving a car or van	74%
Passenger in a car or van	7%
Bicycle	6%
On foot	1%
Other method of travel to work	1%
Total	100%

**Figure 43 – Office - Mode Share Proportions – Derived from TRICS Surveyed Sites**

### Employment – B2/B8 (Industrial Estate/Commercial Warehousing)

- 11.6.12 For the proposed B2/B8 land use, the mode share was developed by extracting the mode share percentage from the TRICS assessment which equated to an 80% for car driver. The TRICS data however did not include all modes.
- 11.6.13 Therefore, to determine a mode share for all uses, the mode share for the office use has been extrapolated, to reflect the higher car/van driver mode share, with a proportionate reduction of 6% across the other modes relative to the office mode share proportions.
- 11.6.14 A summary of the mode share proportion is provided in **Figure 44**.

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Mode	Mode Share
Underground, metro, light rail or tram	0%
Train	4%
Bus, minibus or coach	4%
Taxi	0%
Motorcycle, scooter or moped	0%
Driving a car or van	80%
Passenger in a car or van	6%
Bicycle	5%
On foot	1%
Other method of travel to work	0%
Total	100%

**Figure 44 – Mode Share – Industrial Estate/Warehousing**

### Scenario Mode Shares

- 11.6.15 As referenced within Section 10, to assess the impact of the development proposals, two mode share development scenarios have been assessed. In Scenarios 2 and 3, a proportion of vehicle trips have been reassigned to other modes to reflect the impact of the implementation of the Sustainable Transport Strategy (STS) on mode choice.
- 11.6.16 As mentioned in **Section 10**, to assess the impact of the development proposals, a number of scenarios have been developed. Scenarios 2 and 3, sees a proportion of vehicle trips reassigned to other modes to reflect the impact of the implementation of the Sustainable Transport Strategy (STS) on mode choice. The resultant reductions are illustrated in **Figures 45 and 46**.

Mode	Residential	Office Employment	B2/B8 Employment
<b>Scenario 2</b>			
Underground, metro, light rail or tram	0%	0%	0%
Train	14%	10%	9%
Bus, minibus or coach	17%	18%	16%
Taxi	0%	0%	0%
Motorcycle, scooter or moped	1%	1%	0%
Driving a car or van	53%	49%	55%
Passenger in a car or van	5%	12%	11%
Bicycle	7%	9%	8%
On foot	1%	1%	1%
Other method of travel to work	1%	1%	0%
Total	100.0%	100%	100%

## Transport Assessment

**Figure 45 – Proposed Reassignment of Mode Share - “Best Realistic Case Scenario” (Scenario 2)**

Mode	Residential	Office Employment	B2/B8 Employment
<b>Scenario 3</b>			
Underground, metro, light rail or tram	0%	0%	0%
Train	13%	8%	8%
Bus, minibus or coach	7%	14%	14%
Taxi	0%	0%	0%
Motorcycle, scooter or moped	1%	1%	0%
Driving a car or van	61%	59%	60%
Passenger in a car or van	7%	10%	10%
Bicycle	6%	7%	7%
On foot	1%	1%	1%
Other method of travel to work	1%	1%	0%
Total	100%	100%	100%

**Figure 46 - Proposed Reassignment of Mode Share – “Moderate Realistic Case Scenario” (Scenario 3)**

11.6.17 The resultant multi modal trip generation for each land use by Scenario is illustrated in **Figures 47 to 50**, by applying the respective mode shares in **Figures 45 and 46** to the total person trip generation in **Figure 41**.

Residential Trip Generation by Mode	AM Peak			PM Peak		
	Arrival	Departure	2-way	Arrival	Departure	2-way
<b>Scenario 2</b>						
Underground, metro, light rail or tram	0	1	1	1	0	1
Train	11	43	54	34	13	47
Bus, minibus or coach	13	53	66	42	16	58
Taxi	0	1	1	1	0	1
Motorcycle, scooter or moped	1	4	5	3	1	4
Driving a car or van	42	164	206	130	48	179
Passenger in a car or van	4	16	20	12	5	17
Bicycle	5	21	27	17	6	23
On foot	1	3	4	2	1	3

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Other method of travel to work	1	3	4	3	1	4
<b>Total</b>	<b>78</b>	<b>308</b>	<b>386</b>	<b>244</b>	<b>91</b>	<b>335</b>
<b>Scenario 3</b>						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	10	41	51	32	12	45
Bus, minibus or coach	6	23	28	18	7	25
Taxi	0	0	0	0	0	0
Motorcycle, scooter or moped	1	5	6	4	1	5
Driving a car or van	48	188	237	150	56	205
Passenger in a car or van	6	23	28	18	7	25
Bicycle	5	18	23	14	5	20
On foot	1	5	6	4	1	5
Other method of travel to work	1	5	6	4	1	5
<b>Total</b>	<b>78</b>	<b>308</b>	<b>386</b>	<b>244</b>	<b>91</b>	<b>335</b>

Figure 47 – Residential Trips by Mode by Scenario

Office Trip Generation by Mode	AM Peak			PM Peak		
	Arrival	Departure	2-way	Arrival	Departure	2-way
<b>Scenario 2</b>						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	50	6	56	4	43	47
Bus, minibus or coach	92	11	103	8	79	87
Taxi	1	0	1	0	1	1
Motorcycle, scooter or moped	6	1	7	1	5	6
Driving a car or van	253	31	284	21	218	239
Passenger in a car or van	62	8	69	5	53	58
Bicycle	45	6	51	4	39	43
On foot	5	1	6	0	4	5
Other method of travel to work	5	1	6	0	4	5
<b>Total</b>	<b>519</b>	<b>63</b>	<b>582</b>	<b>44</b>	<b>446</b>	<b>490</b>

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Scenario 3						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	40	5	45	3	35	38
Bus, minibus or coach	75	9	84	6	64	70
Taxi	1	0	1	0	1	1
Motorcycle, scooter or moped	5	1	6	0	4	5
Driving a car or van	305	37	342	26	262	288
Passenger in a car or van	50	6	56	4	43	47
Bicycle	37	4	41	3	32	35
On foot	4	1	5	0	4	4
Other method of travel to work	4	1	5	0	4	4
<b>Total</b>	<b>519</b>	<b>63</b>	<b>582</b>	<b>44</b>	<b>446</b>	<b>490</b>

Figure 48 – Office Trips by Mode by Scenario

Industrial Estate Trip Generation by Mode	AM Peak			PM Peak		
	Arrival	Departure	2-way	Arrival	Departure	2-way
Scenario 2						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	14	3	17	2	5	7
Bus, minibus or coach	24	6	30	3	10	13
Taxi	0	0	0	0	0	0
Motorcycle, scooter or moped	0	0	0	0	0	0
Driving a car or van	83	20	103	11	33	45
Passenger in a car or van	17	4	21	2	7	9
Bicycle	12	3	15	2	5	6
On foot	2	0	2	0	1	1
Other method of travel to work	0	0	0	0	0	0
<b>Total</b>	<b>152</b>	<b>36</b>	<b>187</b>	<b>21</b>	<b>60</b>	<b>81</b>
Scenario 3						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	12	3	15	2	5	6
Bus, minibus or coach	22	5	27	3	9	12
Taxi	0	0	0	0	0	0
Motorcycle, scooter or moped	0	0	0	0	0	0

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Driving a car or van	91	21	112	13	36	49
Passenger in a car or van	15	3	18	2	6	8
Bicycle	11	3	13	1	4	6
On foot	1	0	2	0	1	1
Other method of travel to work	0	0	0	0	0	0
<b>Total</b>	<b>152</b>	<b>36</b>	<b>187</b>	<b>21</b>	<b>60</b>	<b>81</b>

Figure 49 – Industrial Estate Trips by Mode by Scenario

B8 Warehousing Trip Generation by Mode	AM Peak			PM Peak		
	Arrival	Departure	2-way	Arrival	Departure	2-way
<b>Scenario 2</b>						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	1	0	2	0	1	1
Bus, minibus or coach	2	1	3	1	2	3
Taxi	0	0	0	0	0	0
Motorcycle, scooter or moped	0	0	0	0	0	0
Driving a car or van	7	3	10	2	7	9
Passenger in a car or van	1	1	2	0	1	2
Bicycle	1	0	1	0	1	1
On foot	0	0	0	0	0	0
Other method of travel to work	0	0	0	0	0	0
<b>Total</b>	<b>13</b>	<b>5</b>	<b>18</b>	<b>4</b>	<b>12</b>	<b>17</b>
<b>Scenario 3</b>						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	1	0	1	0	1	1
Bus, minibus or coach	2	1	3	1	2	2
Taxi	0	0	0	0	0	0
Motorcycle, scooter or moped	0	0	0	0	0	0
Driving a car or van	8	3	11	2	7	10
Passenger in a car or van	1	1	2	0	1	2
Bicycle	1	0	1	0	1	1
On foot	0	0	0	0	0	0
Other method of travel to work	0	0	0	0	0	0
<b>Total</b>	<b>13</b>	<b>5</b>	<b>18</b>	<b>4</b>	<b>12</b>	<b>17</b>

Figure 50 – Commercial Warehousing Trips by Mode by Scenario

## Transport Assessment

### 11.7 Internalisation

11.7.1 Due to the overall mixed nature of the development proposals, including retail, community and commercial land uses, a proportion of the trips will remain internal to the site. The proposed levels of internalisation have been discussed SDNPA, WSCC and NH. WSCC considered the internalisation rates acceptable. Following initial discussions and the internalisation rates provided in TN01, amendments have been made and the resultant internalisation rates that have been applied are as follows:

- (i) Scenario 2 – 10% applied to both residential and employment uses;
- (ii) Scenario 3 - 5% applied to both residential and employment uses.

11.7.2 A summary of the resultant multi-modal trip generation for the residential, total employment and total development for both Scenario 2 and Scenario 3 are provided in **Figures 51 and 52.**

Scenario 2	AM Peak			PM Peak		
	Arrival	Departure	2-way	Arrival	Departure	2-way
<b>Total Residential</b>						
Underground, metro, light rail or tram	0	1	1	0	0	1
Train	10	39	48	31	11	42
Bus, minibus or coach	12	48	60	38	14	52
Taxi	0	1	1	0	0	1
Motorcycle, scooter or moped	1	3	4	3	1	4
Driving a car or van	38	148	185	117	44	161
Passenger in a car or van	4	14	18	11	4	15
Bicycle	5	19	24	15	6	21
On foot	1	3	3	2	1	3
Other method of travel to work	1	3	4	2	1	3
<b>Total</b>	<b>71</b>	<b>277</b>	<b>347</b>	<b>220</b>	<b>82</b>	<b>302</b>
<b>Total Employment</b>						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	58	9	67	6	44	50
Bus, minibus or coach	107	16	123	11	82	92
Taxi	1	0	1	0	1	1
Motorcycle, scooter or moped	6	1	6	0	5	5
Driving a car or van	309	48	357	32	232	263
Passenger in a car or van	72	11	83	7	55	62
Bicycle	53	8	61	5	40	46

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On foot	6	1	7	1	5	5
Other method of travel to work	5	1	5	0	4	4
<b>Total</b>	<b>616</b>	<b>94</b>	<b>710</b>	<b>62</b>	<b>468</b>	<b>530</b>
<b>Total Development</b>						
Underground, metro, light rail or tram	0	1	1	0	0	1
Train	68	47	115	36	56	92
Bus, minibus or coach	119	63	182	48	96	144
Taxi	1	1	2	1	1	2
Motorcycle, scooter or moped	6	4	10	3	6	9
Driving a car or van	347	195	542	149	275	424
Passenger in a car or van	76	25	100	18	59	77
Bicycle	58	27	85	20	46	66
On foot	7	4	11	3	5	8
Other method of travel to work	5	4	9	3	5	8
<b>Total*</b>	<b>687</b>	<b>370</b>	<b>1057</b>	<b>282</b>	<b>550</b>	<b>831</b>

Figure 51 - Scenario 2 – Net Person Trips by Mode

Scenario 3	AM Peak			PM Peak		
	Arrival	Departure	2-way	Arrival	Departure	2-way
<b>Total Residential</b>						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	10	39	49	31	11	42
Bus, minibus or coach	5	22	27	17	6	24
Taxi	0	0	0	0	0	0
Motorcycle, scooter or moped	1	4	5	3	1	5
Driving a car or van	46	179	225	142	53	195
Passenger in a car or van	5	22	27	17	6	24
Bicycle	4	17	22	14	5	19
On foot	1	4	5	3	1	5
Other method of travel to work	1	4	5	3	1	5
<b>Total</b>	<b>74</b>	<b>291</b>	<b>366</b>	<b>231</b>	<b>86</b>	<b>317</b>
<b>Total Employment</b>						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	51	8	59	5	39	44

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Bus, minibus or coach	93	14	107	9	71	80
Taxi	1	0	1	0	1	1
Motorcycle, scooter or moped	5	1	5	0	4	4
Driving a car or van	384	58	442	39	291	329
Passenger in a car or van	63	10	72	6	48	54
Bicycle	46	7	53	5	35	40
On foot	5	1	6	1	4	5
Other method of travel to work	4	0	4	0	3	4
<b>Total</b>	<b>652</b>	<b>99</b>	<b>751</b>	<b>65</b>	<b>495</b>	<b>560</b>
<b>Total Development</b>						
Underground, metro, light rail or tram	0	0	0	0	0	0
Train	61	47	107	36	50	86
Bus, minibus or coach	99	36	134	26	77	104
Taxi	1	0	1	0	1	1
Motorcycle, scooter or moped	6	5	11	4	5	9
Driving a car or van	429	238	667	181	343	524
Passenger in a car or van	68	31	100	23	54	77
Bicycle	<b>51</b>	<b>24</b>	<b>75</b>	<b>18</b>	<b>40</b>	<b>58</b>
On foot	6	5	12	4	5	9
Other method of travel to work	5	5	10	4	5	8
<b>Total*</b>	<b>726</b>	<b>390</b>	<b>1,116</b>	<b>297</b>	<b>581</b>	<b>878</b>

**Figure 52 - Scenario 3 – Net Person Trips by Mode**

11.7.3 The resultant total vehicle trip generation for Scenarios 2 and 3 with the internalisation applied is demonstrated within **Figure 53**.

Time Period	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	Arrival	Departure	2-way	Arrival	Departure	2-way
<b>Scenario 2</b>						
Residential	42	165	208	131	49	180
Office	290	35	326	25	249	274
Industrial Estate	90	21	111	12	36	48
Warehouse	7	3	11	2	7	10
<b>Total</b>	<b>430</b>	<b>225</b>	<b>655</b>	<b>171</b>	<b>341</b>	<b>512</b>
<b>Scenario 3</b>						
Residential	52	205	257	163	61	223
Office	343	42	385	29	295	324

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Industrial Estate	101	24	124	14	40	54
Warehouse	8	3	12	3	8	11
<b>Total</b>	<b>504</b>	<b>274</b>	<b>778</b>	<b>208</b>	<b>403</b>	<b>612</b>

**Figure 53 - Vehicle Trips by Land Use by Scenario**

### 11.8 Development Trips by Sustainable Modes

11.8.1 The number of arrival and departure trips undertaken by sustainable modes of transport has been quantified based upon the mode share assumptions as set out within Scenarios 2 and 3.

#### Bus Trips

11.8.2 In Scenario 2 during the weekday AM Peak, it is anticipated that the development would generate/attract at total of 119 arrival bus trips and 63 departure bus trips. In the weekday PM Peak the development is anticipated to generate/attract at total of 48 arrival bus trips and 96 departure bus trips.

11.8.3 In Scenario 3 during the weekday AM Peak, it is anticipated that the development would generate/attract at total of 99 arrival bus trips and 36 departure bus trips. In the weekday PM Peak the development is anticipated to generate/attract at total of 26 arrival bus trips and 77 departure bus trips.

11.8.4 It is noted that the majority of the bus trips would be associated with the employment uses and would be accommodated by the proposed shuttle bus service.

#### Rail Trips

11.8.5 In Scenario 2 during the weekday AM Peak, it is anticipated that the development would generate/attract at total of 68 arrival rail trips and 47 departure rail trips. In the weekday PM Peak the development is anticipated to generate/attract at total of 36 arrival rail trips and 56 departure rail trips.

11.8.6 In Scenario 3 during the weekday AM Peak, it is anticipated that the development would generate/attract at total of 61 arrival rail trips and 47 departure rail trips. In the weekday PM Peak the development is anticipated to generate/attract at total of 36 arrival rail trips and 50 departure rail trips.

#### Cycle Trips

11.8.7 In Scenario 2 during the weekday AM Peak, it is anticipated that the development would generate/attract at total of 58 arrival cycle trips and 27 departure cycle trips. In the weekday PM Peak the development is anticipated to generate/attract a total of 20 arrival and 46 departure cycle trips.

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11.8.8 In Scenario 3 during the weekday AM Peak, it is anticipated that the development would generate/attract at total of 51 arrival and 24 departure cycle trips. In the weekday PM Peak the development is anticipated to generate/attract at total of 18 arrival and 40 departure cycle trips.

### Walking Trips

11.8.9 In Scenario 2 during the weekday AM Peak, it is anticipated that the development would generate/attract at total of 7 arrival walking trips and 4 departure walking trips. In the weekday PM Peak the development is anticipated to generate/attract a total of 3 arrival and 5 departure walking trips.

11.8.10 In Scenario 3 during the weekday AM Peak, it is anticipated that the development would generate/attract at total of 6 arrival and 5 departure walking trips. In the weekday PM Peak the development is anticipated to generate/attract at total of 4 arrival and 5 departure walking trips.

11.8.11 The relatively low walking mode share and resultant walking trips is reflective of the local population catchment area outside of the site. There is however greater potential beyond this conservative estimate for walking trips to/from the site from nearby Upper Beeding, Steyping and the northern areas within Shoreham for those prepared to walk distances in excess of 2km via the improved section of the Downs Link.

## Transport Assessment

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### 12 TRIP DISTRIBUTION AND ASSIGNMENT

- 12.1.1 ADLs previous trip distribution and assignment methodology was discussed and agreed within their TN1 and TA submission documents. A joint approach utilising 2011- Census OD data and Mobile Network Data (MND) were used.
- 12.1.2 For residential trips, appropriate split for Census desired journey to work trips and MND desired home-based trips (HBO) would be used. For employment trips, appropriate split for Census desired journey to work trips and MND desired other trips (NHB) would be as advised by WSCC within the ADL study.
- 12.1.3 RGP agree with the use of the 2011- Census OD data and the MND. However, on review of the MSOA areas that were utilised within the previous assessment, RGP conclude that for employment trips, the use of more than just the Adur 007A MSOA should be used. On review of the census data, the Adur 007A MSOA provides a distribution which favours travel to and from Worthing and Lancing, over travel from Shoreham and Portslade. RGP feel that more than one MSOA area should be used to determine a more comprehensive distribution and assignment for employment trips.
- 12.1.4 RGP suggest that MSOA areas Adur 002, Adur 005 and Adur 007 are also included within this assessment. Adur 002 accounts for Shoreham Hospital and the Tesco / Marks and Spencer superstores as key employment areas. Adur 005 accounts for Shoreham town centre and the industrial area located along the A259 and River Adur. The Adur 007 MSOA provides key employment distribution data for Brighton City Airport and the business parks located adjacent.

#### 12.2 Trip Assignment

- 12.2.1 Following a review of the trip distribution and assignment methodology applied within the ADL Transport Study within TN1, RGP note that it was acknowledged that the Google map routing had been based traffic levels (recorded at the time), which were affected by COVID restrictions. On review of the trip distribution assignment diagrams provided in Appendix 10 of the ADL TA, RGP conclude that a number of westbound trips were routed west along the A27 bypass.
- 12.2.2 A number of MSOA destinations for journeys to work can be made by routing north and using the A24 Horsham Road to then head south to MSOA areas such as Worthing 001, 002, 003, 006, 007 and 013. Appendix C of TN01 demonstrates snapshots from Google Maps showing the journey times to those destinations which show routing to the north to avoid the queuing and delays experienced at along the A27 by-pass / Sompting By-pass and A27 within the north of Worthing.
- 12.2.3 On review of the 2011 Census data for Employment trips, using all three MSOA areas, RGP conclude that an 18% assignment of employment trips north would be more representative of vehicle route choice in comparison to the ADL study that applied a 10% assignment of vehicle trips north and 90% south. The additional 8% of trips assigned to the north is the combination of re-routed traffic that heads to West Worthing and the Arun District.

## Transport Assessment

- 12.2.4 On review of the Horsham 016 MSOA Residential JTW data, RGP conclude that an additional 3% of development related vehicular trips be assigned to the north of the A283 from the site access. These trips would subsequently be expected to route southbound along the A24 Horsham Road via the A283/A24 Washington Roundabout for trips made to West Worthing that were previously routed along the A27 Bypass.
- 12.2.5 A plan of the proposed reassignment of traffic within the local highway network is indicated in **Figure 54**.

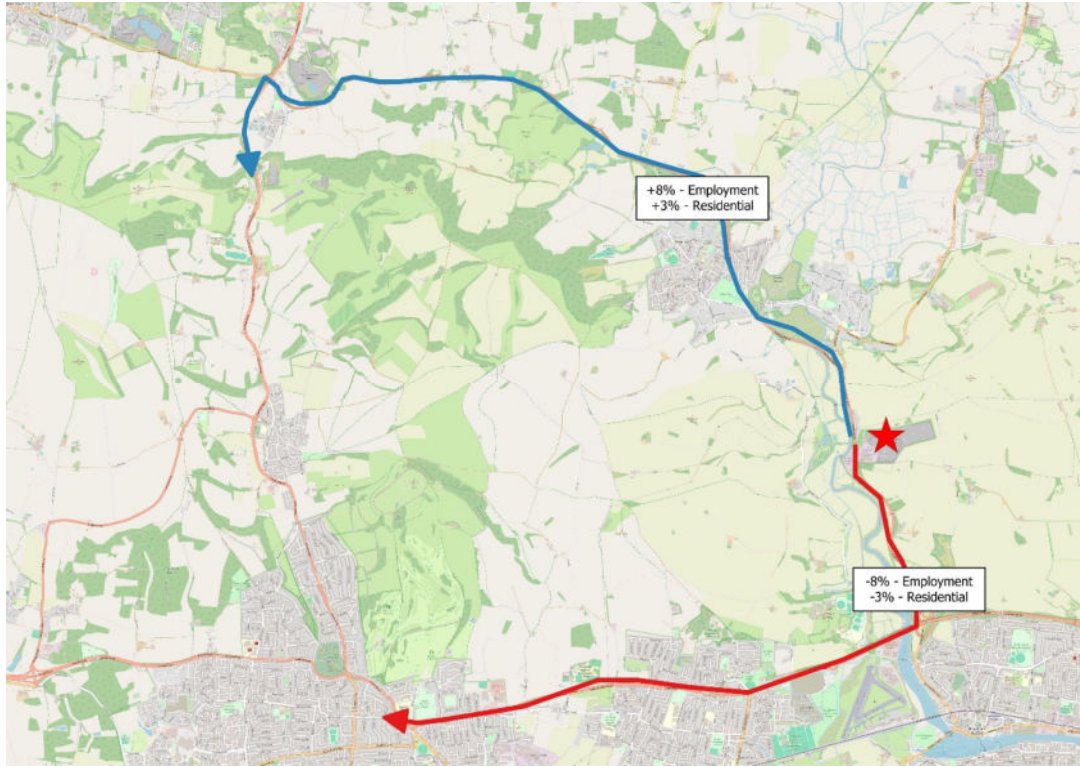


Figure 54 - Proposed Reassignment of vehicle trips to/from Site

## Transport Assessment

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### 13 PROPOSED SITE ACCESS ARRANGEMENTS

#### 13.1 Access Arrangements

- 13.1.1 The ADL Transport Study was predicated on worst-case scenario vehicular development traffic flows and background traffic growth forecasts. This approach subsequently resulted in the design of a very large (60m ICD) four-arm roundabout design with dedicated left-turn lanes from both the northern and southern approaches of the A283 and two lane exits from either side of the site access exit approaches.
- 13.1.2 RGP would assert that this represents a very much over-engineered solution on the premise of the "Predict and Provide" worst-case scenario assessment methodology. The disbenefits of this access option are manifold and can be summarised below:
- i) Requirement for considerable land take and hardstanding;
  - ii) Due to the topography of the site and A283, there would be a requirement for considerable cut and fill in re-grading the area required to construct the roundabout;
  - iii) The lighting requirements of a large at-grade roundabout which would adversely affect the sensitive National Park setting.
  - iv) Construction works would negatively impact the National Park and the ecology within it; and
  - v) The construction costs could be reassigned to deliver active travel and sustainable transport benefits instead.
- 13.1.3 It is understood that the option of retaining the existing left-in/ left-out junction arrangements was not investigated by ADL on the assumption that widening works to the tunnel would be required. ADL cited that calculating the cost implications of widening of the tunnel was beyond their scope of works.
- 13.1.4 RGP are of the view that the retention of the existing site access arrangements should be fully explored as this would offer the most cost-effective and least ecologically intrusive access design option.
- 13.1.5 RGP consider the most appropriate site access strategy in terms of minimising cost, disruption to the operation of the local highway network and the environmental ecology impacts arising from construction works, is to seek to retain the existing access arrangements subject to slight modification.
- 13.1.6 A site visit and meeting was arranged and undertaken on 20th November 2025 in order to record geometric measurements and observe the existing operation of the site access arrangements including the use of the link road underpass.
- 13.1.7 As part of the junction modelling assessment work, RGP have undertaken a review of the site access proposals, based upon the retention of the left-in/left-out option and use of the on-site underpass link beneath the A283.

## Transport Assessment

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13.1.8 The junction modelling assessment assigns traffic as discussed within Section 5 of this Technical Note and applies the Junctions10 software in relation to the priority-controlled accesses with the A283.

13.1.9 The use of the underpass link with no widening proposed has been assessed initially using LINSIG 3 to assess a simple one-way shuttle operation along the 25m long link road.

### Proposed A283 Speed Reduction

13.1.10 As discussed in Section 3, the A283 currently operates under a 60mph speed limit adjacent to the site which changes to a 40mph speed limit at a distance of approximately 270m to the north of the northern site access junction (eastern section of site).

13.1.11 It is anticipated that the change in speed limit from 60mph to 40mph would be relocated approximately 700m to the south of the current location and approximately 100m south of the southern (western) site access junction with the A283. The change in speed limit would be demarcated with roundels within the carriageway and a signed gateway feature on the northern approach. The process of extending the 40mph speed limit would be via a Traffic Regulation Order (TRO) to be agreed with WSCC.

13.1.12 The northern left-in/left-out arrangement would be retained with little if any highway modifications required to this junction.

13.1.13 With respect to the southern site access junction, there is potential to implement further junction modification in providing physical restrictions to ensure the proposed left-in/left-out junction arrangements are adhered to.

13.1.14 The costs of implementing minor works to the southern access junction and the provision for extending the 40mph speed limit further to the south on the A283 under a TRO application is discussed in **Section 16**.

### A283 Shoreham Road/A283 Steining Bypass/A2037 Shoreham Road Roundabout

13.1.15 The A283/A2037 Shoreham Road roundabout is located approximately 1km to the north of the Shoreham Cement Works site. This junction provides access to the village of Upper Beeding from the A283.

13.1.16 In terms of the masterplan layout, it is anticipated that the section of the site to the west of the A283 would consist of residential units to capture the views of the Adur valley and convenient access to the Downs Link. The Business Park comprising a mix of office, warehousing/logistics and light industrial units would be provided within the larger land parcel to the east of the A283 along with the neighbourhood centre and a portion of housing.

13.1.17 In proposing the retention of the left-in/left-out access strategy along both sides of the A283, it will be important to consider the implications that this access arrangement would have on vehicle trips by larger delivery vehicles and large commercial vehicles. RGP would recommend that large vehicles (HGVs) associated with the B2/B8 land use operators would avoid accessing the western section of the site where possible.

## Transport Assessment

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- 13.1.18 Large commercial vehicles accessing the site eastern section of the site from the north would simply enter the site via the existing left-in/left-out access arrangements.
- 13.1.19 For large commercial vehicles entering the site from the south along the A283, the warehouse/industrial unit operators would instruct commercial vehicle drivers to instead continue north beyond the site before performing a U-turn at the junction of the A283/A2037 Shoreham Road roundabout. Vehicles would subsequently access the site in the same way as vehicles accessing from the north. This would seek to minimise larger vehicles from entering the western section of the site and being required to access the east of the site via the A283 underpass link road.
- 13.1.20 During the site visit, it was observed that large commercial vehicles associated with the existing site operation follow this vehicular access procedure with all commercial vehicles required to access the eastern site access junction via the A283/A2037 junction, as necessary.
- 13.1.21 In the interests of quantifying and assessing the ability for the A283/A2037 Shoreham Road roundabout to accommodate U-turning vehicles in accessing the SCW site, RGP have undertaken a junction modelling assessment of this junction in assessing the associated U-turn movements.

## Transport Assessment

### 14 SITE ACCESS CAPACITY ASSESSMENT

- 14.1.1 A junction capacity assessment has been undertaken for each of two site accesses, assessed as part of this transport study for the year 2042 using industry standard modelling software, such as TRL's Junctions 10 (for priority junctions and roundabouts) and JCT's LinSig V3 (for signalised junctions).
- 14.1.2 Scenario 1 has been tested against the 2042 future year flow (with growth rate of 1.073) and Scenarios 2 and 3 have been tested against the 2042 future year flow (with growth rate of 1.026).
- 14.1.3 WSCC state that drivers tend to notice delay over 30 seconds. Delay over two minutes (120 seconds) represents a congested situation, and one should avoid delay over three minutes (180 seconds).

#### 14.2 Northern Site Access

- 14.2.1 The northern site access has been modelled in TRL's Junctions 10 software as a left in left out access. The proposed site access arrangement for the northern site access is detailed above in **Section 13**. A PICADY model output for Scenarios 1, 2 and 3 are provided in **Appendix M**, and the results summarised in **Figure 55**.

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>Scenario 1</b>								
Stream B-AC	0.1	11.25	0.08	B	0.2	11.51	0.14	B
Stream C-B	0	0	0	A	0	0	0	A
<b>Scenario 2</b>								
Stream B-AC	0.6	18.59	0.4	C	1.9	32.22	0.66	D
Stream C-B	0	0	0	A	0	0	0	A
<b>Scenario 3</b>								
Stream B-AC	0.9	21.61	0.49	C	3.5	50.86	0.8	F
Stream C-B	0	0	0	A	0	0	0	A

**Figure 55 - Northern Site Access - Junction Modelling Results**

- 14.2.2 The proposed left in left out junction arrangement for the northern access, would operate within capacity and there would not be an unacceptable level of congestion at this junction.

#### 14.3 Southern Site Access

- 14.3.1 The southern site access has been modelled in TRL's Junctions 10 software as a left in left out access. The proposed site access arrangement for the northern site access is detailed above in **Section 13**. A PICADY model output for Scenarios 1, 2 and 3 are provided in **Appendix M**, and the results summarised in **Figure 56**.

## Transport Assessment

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>Scenario 1</b>								
Stream B-AC	0.3	11.31	0.24	B	0.2	14.92	0.2	B
Stream C-B	0	0	0	A	0	0	0	A
<b>Scenario 2</b>								
Stream B-AC	0.3	11.09	0.22	B	0.2	14.25	0.2	B
Stream C-B	0	0	0	A	0	0	0	A
<b>Scenario 3</b>								
Stream B-AC	0.4	12.42	0.28	B	0.3	14.55	0.2	B
Stream C-B	0	0	0	A	0	0	0	A

**Figure 56 - Southern Site Access - Junction Modelling Results**

14.3.2 The proposed left in left out junction arrangement for the northern access, would operate within capacity and there would not be an unacceptable level of congestion at this junction.

### 14.4 Underpass Shuttle Signal

14.4.1 The internal workings of the site would require a new signalised shuttle arrangement to be implemented to control the flow of traffic through the underpass between the two, left in left out arrangements.

14.4.2 A LINSIG model has been developed to test the operation of a signalised shuttle arrangement. The junction modelling results are provided in **Figure 57**.

	AM				PM			
	Deg Sat (%)	Total Delay (pcu/Hr)	MMQ	PRC	Deg Sat (%)	Total Delay (pcu/Hr)	MMQ	PRC
<b>Scenario 2</b>								
East Entry (Ahead)	10.4%	0.2	0.4	102.7	11.7%	0.2	0.5	657.7
West Entry (Ahead)	44.4%	1.0	2.5		12.0%	0.2	0.4	
<b>Scenario 3</b>								
East Entry (Ahead)	12.7%	0.2	0.4	68.8	17.6%	0.3	0.8	390.8
West Entry (Ahead)	53.3%	1.3	3.2		18.3%	0.3	0.8	

**Figure 57 - Signalised Tunnel Underpass - Modelling Results**

## Transport Assessment

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- 14.4.3 The results demonstrate that the proposed one-way signalised shuttle arrangement at the underpass can be designed and optimised to ensure that there are very minimal delays of below 5 seconds.

## Transport Assessment

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### 15 OFF-SITE JUNCTION CAPACITY ASSESSMENT

#### Extent of Highway Network to be Assessed

- 15.1.1 The extent of highway network assessed within the ADL report included a total of 12 off-site junctions assessed. Of these 12 junctions, the ADL report assessed the impact and provided subsequent cost estimates for highway capacity improvement works to seven of these junctions.
- 15.1.2 The seven junctions to which the ADL TA report assessed and identified as requiring highway capacity mitigation works would be compared and framed against the overall lower traffic volumes associated with the new growth expectations and trip scenario options. Physical junction capacity enhancements would only be considered when the practical implementation of sustainable travel mitigation measures had been exhausted.
- 15.1.3 The seven off-site junctions which are numbered as per the ADL report, include the following:
- i) Junction 1 – Washington Roundabout;
  - ii) Junction 2 – A283/Water Lane Junction;
  - iii) Junction 4 – A283/Clays Hill Junction;
  - iv) Junction 8 – A283/A27 Slips;
  - v) Junction 9 – A283/Upper Shoreham Road;
  - vi) Junction 10 – A283/A259 Roundabout; and
  - vii) Junction 12 – A27/A2025 (Lancing Roundabout).
- 15.1.4 It is noted that WSCC and NH have previously indicated that it may be undesirable for those junctions situated to the south of the A27 (Junctions 9 and 10), to undergo junction capacity improvement works. WSCC have confirmed that this remains the position that impacts here should be addressed by sustainable transport measures only.
- 15.1.5 Whilst RGP would not consider infrastructure works necessary, junction capacity assessments of these junctions will be undertaken to ascertain the development impact.
- 15.1.6 It is understood that improvement works to include a road safety scheme are programmed at the Washington Roundabout. Notwithstanding this, a junction modelling exercise in testing the development scenario has been undertaken.
- 15.1.7 As discussed in TN01, the highway mitigation strategy associated with capacity improvements at the Lancing Manor junction may not be feasible due to third party land constraints. Based upon the proposed reassignment of traffic and overall lower future base flows and development flows, RGP do not propose to undertake a junction modelling appraisal of the Lancing Manor junction.

## Transport Assessment

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15.1.8 As with Junction 2 (A283/Water Lane), the proportional impact of development traffic associated with the SCW site has been assessed and presented below.

### A283/Water Lane Junction

15.1.9 The proportional development impact in terms of total traffic flows at the junction when compared to Scenario 1:

- i) Scenario 2 - 5.32% impact in the AM / 3.40% impact in the PM
- ii) Scenario 3 - 6.53% impact in the AM / 3.90% impact in the PM

### Lancing Manor Roundabout

15.1.10 The proportional development impact in terms of total traffic flows at the junction when compared to Scenario 1:

- i) Scenario 2 – 2.06% impact in the AM / 1.65% impact in the PM
- ii) Scenario 3 - 2.62% impact in the AM / 2.11% impact in the PM

15.1.11 Of the seven off-site junctions referenced above, junctions 1, 4, 8, 9 and 10 have been assessed in addition to the A283/A2037 junction (referenced as Junction 5).

### Highway Network Assessment Summary

15.1.12 As discussed above, RGP propose to undertake a junction modelling assessment of the following off-site junctions based upon the three development scenarios as set out in paragraph 4.5:

- i) Junction 1 – Washington Roundabout;
- ii) Junction 4 – A283/Clays Hill Junction;
- iii) Junction 5 – A283/A2037 roundabout;
- iv) Junction 8 – A283/A27 Slips;
- v) Junction 9 – A283/Upper Shoreham Road; and
- vi) Junction 10 - A283/A259 Roundabout.

15.1.13 In summary, a total of 6 off-site junctions have been assessed using the industry standard modelling software Junctions 10 for unsignalised junctions and LINSIG where a signalised junction arrangement exists or is proposed. Junction modelling of the proposed site access junction arrangements have also been undertaken with the results presented below.

## Transport Assessment

### Junction Capacity Assessments

- 15.1.14 A junction capacity assessment has been undertaken for each of the junctions assessed as part of this transport study for the year 2042 using industry standard modelling software, such as TRL's Junctions 10 (for priority junctions and roundabouts) and JCT's LinSig V3 (for signalised junctions).
- 15.1.15 Scenario 1 has been tested against the 2042 future year flow (with growth rate of 1.073) and Scenarios 2 and 3 have been tested against the 2042 future year flow (with growth rate of 1.026).
- 15.1.16 WSCC state that drivers tend to notice delay over 30 seconds. Delay over two minutes (120 seconds) represents a congested situation, and one should avoid delay over three minutes (180 seconds).

### 15.2 Junction 1 – A283 / A24 (Washington Roundabout)

- 15.2.1 The A283 / A24 Washington Roundabout has been assessed for capacity using TRL's Junctions 10 software. The ARCADY model output for the roundabout is provided in **Appendix N**. The results of the capacity assessment are summarised in **Figure 58**.

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>2025</b>								
1 - A24 North	3	7.67	0.75	A	13.6	28.13	0.95	D
2 - A283 East	1.5	7.25	0.61	A	2	9.93	0.67	A
3 - A24 South	2.2	5.45	0.69	A	1.1	3.1	0.52	A
4 - A283 West	3.5	13.13	0.79	B	2.7	8.85	0.74	A
<b>2042</b>								
1 - A24 North	4.5	10.87	0.82	B	53.1	88.09	1.04	F
2 - A283 East	2.1	9.49	0.68	A	2.9	13.55	0.75	B
3 - A24 South	3.2	7.26	0.76	A	1.3	3.48	0.57	A
4 - A283 West	6.9	24.75	0.89	C	4.2	12.84	0.81	B
<b>Scenario 1</b>								
1 - A24 North	4.5	10.97	0.83	B	53.4	88.46	1.04	F
2 - A283 East	2.1	9.52	0.69	A	2.9	13.59	0.75	B
3 - A24 South	3.2	7.29	0.76	A	1.3	3.48	0.57	A
4 - A283 West	7	25.01	0.89	D	4.2	12.89	0.81	B
<b>Scenario 2</b>								
1 - A24 North	3.9	9.63	0.8	A	32.4	59.56	1	F
2 - A283 East	2.2	9.34	0.69	A	3	14	0.76	B
3 - A24 South	3	6.95	0.75	A	1.2	3.34	0.55	A
4 - A283 West	5.5	20.04	0.86	C	3.5	11.02	0.78	B

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Scenario 3								
1 - A24 North	4	9.87	0.8	A	35.1	63.57	1.01	F
2 - A283 East	2.3	9.67	0.7	A	3	13.97	0.76	B
3 - A24 South	3.1	7.16	0.76	A	1.2	3.35	0.55	A
4 - A283 West	5.8	21.02	0.86	C	3.6	11.11	0.79	B

**Figure 58 – Washington Roundabout - Junction Modelling Results**

15.2.2 The junction in the 2042 future year operates beyond its capacity with RFC of greater than 1 on the A24 North Arm in the PM peak hour, with a delay of 88 seconds. The addition of the proposed development in Scenario 2 sees an improvement to the operation of the junction with the delay reducing on the A24 North Arm in the PM peak.

15.2.3 However, the junction still operates beyond capacity with an RFC of 1. The congested operation of the junction on the A24 North is an existing issue, which is not exacerbated by the development. Therefore, no further investigation is required, and improvements to junction performance is beholden to WSCC as the local highway authority.

### 15.3 Junction 2 – A283 / A2037 Roundabout

15.3.1 The A283 / A2037 Roundabout has been assessed for capacity using TRL's Junctions 10 software. The ARCADY model output for the roundabout is provided in **Appendix N**. The results of the capacity assessment are summarised in **Figure 59**.

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>2025</b>								
1 - A2037	1.3	7	0.55	A	1.4	7.17	0.58	A
2 - A283 South	2	5.7	0.65	A	2.8	7.28	0.74	A
3 - A283 North	2.5	7.85	0.71	A	1.8	6.12	0.64	A
<b>2042</b>								
1 - A2037	1.7	8.51	0.61	A	1.8	8.88	0.65	A
2 - A283 South	2.5	6.74	0.7	A	3.9	9.55	0.8	A
3 - A283 North	3.4	10.05	0.77	B	2.3	7.33	0.7	A
<b>Scenario 1</b>								
1 - A2037	1.7	8.65	0.62	A	1.8	8.89	0.65	A
2 - A283 South	2.5	6.74	0.7	A	3.9	9.67	0.8	A
3 - A283 North	3.6	10.46	0.77	B	2.3	7.38	0.7	A
<b>Scenario 2</b>								
1 - A2037	1.9	9.46	0.64	A	1.9	9.38	0.66	A
2 - A283 South	2.8	7.35	0.73	A	4.3	10.47	0.82	B
3 - A283 North	4.1	11.57	0.8	B	2.5	7.87	0.71	A
<b>Scenario 3</b>								

## Transport Assessment

1 - A2037	2	10.08	0.66	B	2	9.73	0.67	A
2 - A283 South	3.1	8	0.75	A	4.4	10.62	0.82	B
3 - A283 North	4.5	12.63	0.81	B	2.6	8.15	0.72	A

**Figure 59 – A283/A2037 Roundabout – Junction Modelling Results**

15.3.2 The modelling results demonstrate that the junction performs within capacity in all scenarios. Therefore, no further analysis or investigation is required.

### 15.4 Junction 3 – Clays Hill Roundabout

15.4.1 The A283 / A24 Washington Roundabout has been assessed for capacity using TRL's Junctions 10 software. The ARCADY model output for the roundabout is provided in **Appendix N**. The results of the capacity assessment are summarised in **Figure 60**.

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>2025</b>								
1 - A283 South	5.1	17.17	0.83	C	29.8	80.31	1.01	F
2 - Maudlin Lane	0	6.27	0.03	A	0	7.71	0.03	A
3 - Clays Hill	2	13.58	0.67	B	0.8	9.03	0.45	A
4 - A283 North	2.2	10.18	0.67	B	2.7	10.47	0.73	B
5 - Castle Lane	0.2	8.02	0.18	A	0.1	6.7	0.09	A
6 - The Street	0.3	5.61	0.23	A	0.3	5.45	0.24	A
<b>2042</b>								
1 - A283 South	8.4	27.32	0.9	D	71.8	166.29	1.09	F
2 - Maudlin Lane	0	6.9	0.03	A	0	7.97	0.03	A
3 - Clays Hill	3	18.74	0.75	C	1	9.88	0.49	A
4 - A283 North	2.9	12.71	0.73	B	3.7	13.56	0.79	B
5 - Castle Lane	0.3	9.17	0.21	A	0.1	7.43	0.11	A
6 - The Street	0.3	6.2	0.26	A	0.4	6.01	0.28	A
<b>Scenario 1</b>								
1 - A283 South	8.5	27.34	0.9	D	72.2	166.26	1.09	F
2 - Maudlin Lane	0	6.92	0.03	A	0	7.97	0.03	A
3 - Clays Hill	3	19.01	0.76	C	1	9.87	0.49	A
4 - A283 North	2.9	12.38	0.73	B	3.7	13.63	0.79	B
5 - Castle Lane	0.3	9.24	0.21	A	0.1	7.44	0.11	A
6 - The Street	0.4	6.23	0.26	A	0.4	6.01	0.28	A
<b>Scenario 2</b>								
1 - A283 South	10.1	31.92	0.92	D	76.3	174.39	1.1	F
2 - Maudlin Lane	0	7.03	0.03	A	0	7.97	0.04	A

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3 - Clays Hill	3	19.17	0.76	C	0.9	9.83	0.48	A
4 - A283 North	3.3	13.65	0.76	B	4	14.43	0.8	B
5 - Castle Lane	0.3	9.54	0.22	A	0.1	7.51	0.1	A
6 - The Street	0.3	6.36	0.25	A	0.4	6.03	0.27	A
<b>Scenario 3</b>								
1 - A283 South	11.3	35.26	0.93	E	77.8	177.55	1.1	F
2 - Maudlin Lane	0	7.15	0.03	A	0	7.97	0.04	A
3 - Clays Hill	3.2	20.08	0.77	C	0.9	9.86	0.48	A
4 - A283 North	3.5	14.37	0.77	B	4.2	15.03	0.81	C
5 - Castle Lane	0.3	9.74	0.22	A	0.1	7.61	0.1	A
6 - The Street	0.3	6.44	0.26	A	0.4	6.1	0.27	A

**Figure 60 – Clays Hill Roundabout – Junction modelling Results**

- 15.4.2 The junction in the 2025 base year and 2042 future year operate well beyond its capacity with RFC of greater than 1 on the A283 South Arm in the PM peak hour. With the delay in 2042 increasing to 166 seconds.
- 15.4.3 The addition of the proposed development in Scenario 2 and 3 slightly exacerbates the level of delay and vehicle queuing experienced on the A283 South Arm in the PM peak. The congested operation of the junction on the A283 South is an existing issue, to which the proposed development would slightly exacerbate.
- 15.4.4 Highway capacity improvements to junction performance is beholden to WSCC as the local highway authority. RGP have not proposed any highway capacity improvement works at this junction other than the proposed tactile paving improvements as set out within **Sections 7 and 8** of this report.

### 15.5 Junction 4 – A283 / A27 East and West Slips

- 15.5.1 The A283 / A207 Roundabout has been assessed for capacity using TRL's Junctions 10 software. The ARCADY model output for the roundabout is provided in **Appendix N**. The results of the capacity assessment are summarised in **Figure 61**.

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>2025</b>								
1 - A27 Westbound Slips	0.9	3.6	0.47	A	3.6	8.63	0.78	A
2 - A283 South	4.8	19.09	0.83	C	5.5	23.92	0.86	C
3 - A283 North	2.5	7.52	0.72	A	1.9	5.85	0.66	A
4 - A27 Eastbound Slips	0.3	2.81	0.25	A	0.3	2.73	0.22	A
<b>2042</b>								

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1 - A27 Westbound Slips	1.1	3.98	0.51	A	5.6	12.8	0.85	B
2 - A283 South	9	34.23	0.91	D	12	49.44	0.95	E
3 - A283 North	3.5	9.7	0.78	A	2.5	7.03	0.71	A
4 - A27 Eastbound Slips	0.4	2.94	0.27	A	0.3	2.85	0.24	A
<b>Scenario 1</b>								
1 - A27 Westbound Slips	1.1	4.05	0.52	A	6.2	14.1	0.86	B
2 - A283 South	12.4	45.97	0.95	E	13.6	55.31	0.96	F
3 - A283 North	3.8	10.39	0.79	B	3	8.13	0.74	A
4 - A27 Eastbound Slips	0.4	3.04	0.29	A	0.3	2.94	0.25	A
<b>Scenario 2</b>								
1 - A27 Westbound Slips	1.3	4.53	0.56	A	6.7	15.74	0.87	C
2 - A283 South	46.3	139.57	1.07	F	14.5	59.33	0.96	F
3 - A283 North	5.2	13.21	0.84	B	4.7	11.69	0.82	B
4 - A27 Eastbound Slips	0.5	3.4	0.35	A	0.4	3.26	0.29	A
<b>Scenario 3</b>								
1 - A27 Westbound Slips	1.4	4.76	0.58	A	7.7	17.88	0.89	C
2 - A283 South	66.9	193.92	1.11	F	8.2	36.65	0.91	E
3 - A283 North	5.7	14.34	0.86	B	5.1	12.27	0.84	B
4 - A27 Eastbound Slips	0.6	3.5	0.36	A	0.4	3.35	0.3	A

**Figure 61 - A283 / A27 East and West Slips – Junction Modelling Results**

- 15.5.2 The modelling results demonstrate that the junction does operate with some level of congestion in the 2042 future year with delays of greater than 30 seconds on the A283 South arm in both the AM and PM peak periods. With the addition of the develop proposals in Scenario 2 the junction performs beyond capacity.
- 15.5.3 The A283 South operates with an RFC of 1.07 and a delay of 139 seconds. Therefore it can be deemed that the development proposals have a detrimental impact on the operation of the junction and therefore mitigation is required to ensure that the junction can perform without severe delay when the development is fully built. The mitigation option and resulting junction modelling is provided in **Section 16**.

### 15.6 Junction 5 – A283 / Upper Shoreham Road

- 15.6.1 The A283 / Upper Shoreham Road Roundabout has been assessed for capacity using TRL's Junctions 10 software. The ARCADY model output for the roundabout is provided in **Appendix N**. The results of the capacity assessment are summarised in **Figure 62**.

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	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>2025</b>								
1 - Upper Shoreham Road	3.1	15.85	0.76	C	3.9	19.68	0.8	C
2 - A283 South	9.8	69.31	0.94	F	10.7	70.48	0.95	F
3 - A283 North	15.4	75.66	0.98	F	128.4	586.04	1.28	F
<b>2042</b>								
1 - Upper Shoreham Road	4.3	20.96	0.82	C	5.6	27.12	0.86	D
2 - A283 South	26	153.99	1.06	F	27.4	152.28	1.06	F
3 - A283 North	32.7	137.9	1.05	F	197.7	871.93	1.38	F
<b>Scenario 1</b>								
1 - Upper Shoreham Road	4.5	21.8	0.83	C	5.7	27.64	0.86	D
2 - A283 South	33.7	190.26	1.09	F	28.2	155.82	1.06	F
3 - A283 North	34.1	142.54	1.06	F	210.6	926.54	1.4	F
<b>Scenario 2</b>								
1 - Upper Shoreham Road	4.3	21.29	0.82	C	5.4	26.76	0.86	D
2 - A283 South	65.4	345.51	1.21	F	23	131.1	1.04	F
3 - A283 North	27	116.3	1.03	F	243.5	1086.6 9	1.45	F
<b>Scenario 3</b>								
1 - Upper Shoreham Road	4.5	22.14	0.83	C	5.6	27.65	0.86	D
2 - A283 South	78.7	435.56	1.26	F	24.1	135.9	1.04	F
3 - A283 North	27.7	118.38	1.03	F	265.4	1195.2 9	1.48	F

**Figure 62 - A283 / Upper Shoreham Road – Junction Modelling Results**

15.6.2 The modelling results demonstrate that the junction operates well beyond capacity with RFCs of greater than 1 and delays of greater than 180 seconds on the A283 North Arm in 2025, this is further exacerbated in 2042. In the 2042 future year both the A283 North and South Arms operate with congestion with delays of greater than 150 seconds in both peak hours for the A283 south Arm and for the A283 North Arm delays are greater than 850 seconds, which is seen as severe delay. As the junction operates beyond capacity in 2025 and in the 2042 future base year, this highlights a pre-existing junction capacity and congestion issue.

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15.6.3 Whilst the introduction of the development proposals in Scenario 2 results in slight improvements to the Upper Shoreham Road and A283 South with reduced delay, the A283 North would result in a small increase to delay in the PM peak. Any capacity and congestion improvements to this junction is beholden to WSCC as the local highway authority, and the development proposals would not warrant in providing highway mitigation to resolve the pre-existing capacity and congestion issues.

### 15.7 Junction 6 – A283 / A295 Roundabout

15.7.1 The A283 / A295 Roundabout has been assessed for capacity using TRL's Junctions 10 software. The ARCADY model output for the roundabout is provided in **Appendix N**. The results of the capacity assessment are summarised in **Figure 63**.

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>2025</b>								
1 - A259 East	5.2	24.72	0.83	C	179	769	1.43	F
2 - A259 West	130.1	428.53	1.22	F	11.6	43	0.94	E
3 - A283	1.1	8.3	0.51	A	4.4	23.57	0.83	C
<b>2042</b>								
1 - A259 East	9.2	41.59	0.91	E	273.7	1198.3	1.6	F
2 - A259 West	208.5	673.64	1.31	F	25.7	82.61	1.01	F
3 - A283	1.3	8.89	0.55	A	8.9	44.99	0.92	E
<b>Scenario 1</b>								
1 - A259 East	9.4	42.17	0.92	E	277.6	1209.8	1.62	F
2 - A259 West	221.9	715.34	1.33	F	221.2	696.17	1.31	F
3 - A283	1.3	8.89	0.55	A	3.7	17.63	0.79	C
<b>Scenario 2</b>								
1 - A259 East	10.4	46.99	0.93	E	261.7	1181.35	1.59	F
2 - A259 West	244.9	790.45	1.36	F	23.3	76.63	1	F
3 - A283	1.3	8.5	0.56	A	12.7	58.05	0.96	F
<b>Scenario 3</b>								
1 - A259 East	12.3	54.62	0.95	F	269.4	1221.58	1.6	F
2 - A259 West	265.4	855.23	1.38	F	25.5	82.36	1.01	F
3 - A283	1.3	8.7	0.57	A	14.6	65.05	0.97	F

**Figure 63 - A283 / A295 – Junction Modelling Results**

15.7.2 The modelling results demonstrate that the junction operates well beyond capacity with RFCs of greater than 1 and delays of greater than 180 seconds on the A259 in all scenarios. The addition of the proposed development in Scenario 2 sees an improvement to the operation of the junction with the delay reducing on the A259 West Arm in the AM peak and A259 East arm in the PM peak.

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- 15.7.3 The junction still operates beyond capacity and the congested operation of the junction on the A283 South Arm is an existing issue, which is not exacerbated by the development. Therefore, no further investigation is required, and improvements to junction performance is beholden to WSCC as the local highway authority.

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### 16 PROPOSED OFF-SITE INFRASTRUCTURE MITIGATION & COST ESTIMATES

#### Junction 4 – A283 / A27 East and West Slips – Mitigation Option

- 16.1.1 As demonstrated in Section 15, the proposed development is forecast to have a detrimental impact on the operation of the A283 / A27 East and West Slips Roundabout. A mitigation option has been developed, which can be seen in **Appendix O**. The mitigation option proposes the following:
- i) Widening of the entry of the A283 South Arm, to provide greater stacking capacity for vehicles entering the junction in both lanes.
  - ii) Regrading and resurfacing of the carriageway
  - iii) Providing white line marking on the roundabout approaches and circulatory lanes to facilitate better vehicle lane discipline.
- 16.1.2 The widening of the A283 (South) approach would provide increased vehicle stacking capacity behind the stopline in accommodating the increase in weekday AM Peak trips associated with employment arrival trips to the site from trips originating from Shoreham.
- 16.1.3 Improving the condition of the carriageway surface and providing lane markings to assist driver decision making and lane discipline would serve to improve both highway safety and the overall efficiency in the operation of the junction in highway capacity terms.
- 16.1.4 The mitigation option for the A283 / A207 Roundabout has been assessed for capacity using TRL's Junctions 10 software. The ARCADY model output for the roundabout is provided in **Appendix P**. The results of the capacity assessment are summarised in **Figure 64**.

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	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
<b>Scenario 2</b>								
1 - A27 Westbound Slips	1.3	4.53	0.56	A	6.7	15.74	0.87	C
2 - A283 South	1.6	5.31	0.62	A	1.2	4.85	0.55	A
3 - A283 North	5.6	14.33	0.85	B	4.7	11.83	0.83	B
4 - A27 Eastbound Slips	0.5	3.42	0.35	A	0.4	3.27	0.29	A
<b>Scenario 3</b>								
1 - A27 Westbound Slips	1.4	4.76	0.58	A	7.7	17.88	0.89	C
2 - A283 South	1.8	5.75	0.64	A	1.1	4.54	0.51	A
3 - A283 North	6.5	16.42	0.87	C	5.1	12.33	0.84	B
4 - A27 Eastbound Slips	0.6	3.53	0.37	A	0.4	3.35	0.3	A

**Figure 64 – A27/A283 – Highway Mitigation Modelling Result**

16.1.5 The modelling results demonstrate that the junction would operate within its maximum capacity with an RFC of 1 and does not experience delay beyond 30 seconds on any arm. Whilst it is acknowledged that the junction does operate beyond the practical threshold (RFC of 0.85), the mitigation option provides a betterment in terms of operation in comparison to the existing arrangement.

16.1.6 The highway mitigation design improves delay across the junction in comparison to the existing layout design in 2042 as shown in **Figure 64**. Therefore, this mitigation option can be deemed as a positive intervention that accommodates the development impact and provides improved junction performance with reduced delay in comparison to forecasted 2042 operation.

## 16.2 Highway Mitigation Cost Estimate

16.2.1 A cost estimate of the highway works is provided in **Appendix Q**.

16.2.2 The cost estimate is **£20,600** but does not include the costs associated with white line marking and general carriageway surface improvement within the junction as a whole. The cost estimate also does not fully account for traffic management and the possibility of temporary lane running.

16.2.3 As such, an overall conservative cost estimate of **£50,000** has been assumed associated with the proposed minor highway works to the A27/A283 junction.

16.2.4 Furthermore, the costs of reducing the speed limit, by extending the 40mph speed limit approximately 700m further south via a TRO process and minor works to the southern site access junction have been costed conservatively at up to **£50,000**. The combined highway mitigation costs have therefore been estimated at circa **£100,000**.

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### 17 SUMMARY & CONCLUSIONS

#### 17.1 Summary

- 17.1.1 The Shoreham Cement Works site extends to approximately 44 hectares and is divided into two parcels by the A283 Steyning Road. It comprises a former cement works, inactive chalk quarry, temporary recycling operations, and other interim uses. The site lies around 5 km north of Shoreham-by-Sea and 2 km south of Upper Beeding and Steyning, wholly within the South Downs National Park and in single ownership by the Dudman Group.
- 17.1.2 Cement production ceased in 1991, although an extant mineral permission allows chalk extraction until 2042, aligning with the Transport Study assessment year. The site is accessed via two junctions onto the A283: a left-in/left-out northern access, which serves as the primary access, and a restricted southern access. The two land parcels are linked by an underpass tunnel beneath the A283.
- 17.1.3 The A283 provides north–south connectivity to Shoreham, Steyning, and the wider network, with links to the A27 and A24, which form key strategic routes.

#### 17.2 Highway Safety Review

- 17.2.1 Collision data for the five-year period to 30 September 2025 was obtained from West Sussex County Council for the A283 corridor between the Washington Roundabout and the A27 junction. A total of 156 collisions were recorded, the majority resulting in slight injuries, with 45 serious injuries and five fatalities. No pedestrian injuries were recorded, while a small number of cyclist injuries occurred.
- 17.2.2 Collision clusters, as defined by the Adur Local Plan, were identified at the A283/A27 slips and the Washington Roundabout, where collisions were primarily attributed to driver error, including misjudgement and careless driving. A smaller cluster was also noted at the Clays Hill roundabout, again largely associated with driver behaviour rather than road layout.
- 17.2.3 Collision activity near the site accesses was limited, with only isolated incidents recorded. An increase in collisions at the Washington Roundabout has been identified, and WSCC is progressing a safety improvement scheme at this location.

#### 17.3 Permitted Development Trips

- 17.3.1 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. These trips have previously been accepted by SDNPA, WSCC and NH.

#### 17.4 Accessibility by Sustainable Modes

- 17.4.1 A review of local transport infrastructure shows the site has reasonable accessibility by walking, cycling, and public transport, consistent with national and local policy objectives. A range of local amenities are available within 2 km walking and 6–8 km cycling distance, including schools, shops, healthcare, and services in Upper Beeding, Steyning, Lancing, and Shoreham.

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- 17.4.2 The site benefits from extensive pedestrian and cycle infrastructure, including the Downs Link, South Downs Way, and surrounding public rights of way, although some routes have variable surfacing and limited footway provision along the A283. The western boundary directly abuts the Downs Link, providing a key traffic-free route.
- 17.4.3 Bus stops are located adjacent to the northern site access on the A283, serving multiple routes linking the site to Shoreham, Lancing, Worthing, Hove, and Steyning, though service frequencies are generally hourly. Shoreham-by-Sea railway station, approximately 4.4 km south, provides regular regional and London rail services. Overall, the site offers opportunities to support sustainable travel and reduce reliance on the private car.
- 17.4.4 An Active Travel Zone (ATZ) Assessment has been undertaken to review walking, cycling and equestrian connections, as the A283 is not part of the Strategic Road Network and a full GG142 WCHAR assessment is not required. The assessment focuses on the site underpass, Downs Link, South Downs Way, and surrounding public rights of way.
- 17.4.5 The underpass currently provides a constrained pedestrian environment, and options to widen the footway or provide a shared pedestrian/cycle route have been identified, subject to further feasibility work. The western site boundary directly abuts the Downs Link, presenting opportunities for direct pedestrian and cycle access. While the Downs Link provides a high-quality traffic-free route, although the existing surface quality varies and limits accessibility for some users.
- 17.4.6 Improvements are proposed to bus stop access, pedestrian crossings, footway continuity, tactile paving, and Downs Link surfacing, alongside enhancements to informal footpaths and crossings near Upper Beeding and Clays Hill. Collectively, these measures would significantly improve active travel connectivity and safety around the site.

### 17.5 Sustainable Transport Strategy

- 17.5.1 The Shoreham Cement Works development aims to reduce private car use by promoting sustainable transport options. A comprehensive strategy includes restricted parking, with one space per household and prioritized spaces for car sharers. Public transport will be enhanced with an increased frequency of the Number 2 bus service and a dedicated shuttle bus linking the site to nearby hubs.
- 17.5.2 Active travel is prioritized, with improvements to the Downs Link, a cycle hire scheme (including e-bikes), and a mobility hub offering bike parking and EV charging. A carpool fleet will be available, with free membership for residents for three years. Estimated costs for implementing the strategy total £2,031,600, covering infrastructure, transport services, and bike provisions. This sustainable approach aims to minimize car ownership, reduce traffic, and foster a community-oriented, eco-friendly environment.

### 17.6 Traffic Data Analysis:

- 17.6.1 This section discusses the analysis of traffic volumes along the A283, incorporating both past and projected traffic data for the Shoreham Cement Works development.
- 17.6.2 A comparison of DfT traffic counts from 2016 to 2024 shows a 12.6% reduction in traffic volumes. Further data from WSCC traffic counts for 2025 indicated an 11% reduction from 2016, supporting the assumption of no traffic growth between 2019 and 2025.

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- 17.6.3 A 7.3% increase in traffic is forecasted between 2025 and 2042, based on national growth projections applying the core scenario using TEMPro 8.
- 17.6.4 For traffic modelling, the impact of the development on future traffic growth was removed by applying the alternative the alternative assumptions assessment within the TEMPro/NTEM calculations to avoid double-counting.
- 17.6.5 ATC surveys were conducted in November 2025 near site access points, but data was compromised due to equipment tampering. Despite limited data, southern survey results indicated 663 vehicles northbound and 943 vehicles southbound during the AM and PM peak hours.

### 17.7 Development Proposals and Scenario Testing

- 17.7.1 The Shoreham Cement Works development would include circa 400 homes, 62,000 sqm of employment floorspace, and 4,000 sqm for retail and community services. A "neighbourhood centre" will offer amenities like a café, small food retail shop, pharmacy, and nursery.
- 17.7.2 The transport strategy promotes sustainable travel with walking, cycling, and public transport options, including enhanced bus services, a shuttle bus, car-sharing, and e-bike facilities. The development aims to reduce car trips through a restrictive parking policy, the internalisation of a proportion of trips through the provision of complementary land uses and the implementation of a comprehensive number of measures and services as part of the Sustainable Transport Strategy. Mode share scenarios reflect reduced car use due to these initiatives.
- 17.7.3 An assessment of the traffic impact associated with a proposed development comprising 400 dwellings, 32,000 sqm of office space, 30,000 sqm of industrial/warehousing, and 4,000 sqm of retail/community space has been undertaken. The appraisal included the application of multi-modal trip generation rates in comparing two mode shift scenarios based upon the relative success of the Sustainable Transport Strategy.
- 17.7.4 The Sustainable Transport Strategy (STS) promotes alternatives to single occupancy car use like cycling, walking, bus, and rail, aiming to reduce car dependence. Scenario 2, with higher sustainable transport mode adoption, results in fewer car trips and more bus, rail, and cycling trips, helping mitigate traffic impacts.

### 17.8 Site Access Strategy and Junction Modelling Appraisal

- 17.8.1 The ADL Transport Study used 2011 Census OD data and Mobile Network Data (MND) for trip distribution and assignment, with residential trips split between Census journey-to-work and MND home-based data, and employment trips based on Census journey-to-work and MND other trips.
- 17.8.2 RGP has adopted a slightly adapted version of this previously agreed methodology by using multiple MSOA areas (Adur 002, 005, 007) for more accurate employment trip distribution, as Adur 007A alone favours travel to Worthing and Lancing over Shoreham and Portslade.
- 17.8.3 The ADL Transport Study proposed a large four-arm roundabout with significant land take and construction impact based on a worst-case traffic scenario.

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- 17.8.4 RGP assert that this represents a very much over-engineered solution on the premise of the "Predict and Provide" worst-case scenario assessment methodology, highlighting issues like high construction costs, environmental impact, and the National Park's sensitive setting.
- 17.8.5 The retained use of the existing left-in/left-out junction arrangements were subsequently assessed as a more cost-effective and ecologically sensitive option.
- 17.8.6 RGP conducted a site visit and traffic modelling exercise to assess the feasibility of this approach, including using the underpass link beneath the A283 and evaluating traffic flow with LINSIG software.
- 17.8.7 It is recommended that larger commercial vehicles would be rerouted from the south to avoid the western site in minimising disruption. The ability of the A283/A2037 roundabout in accommodating the associated U-turning movements was assessed and was confirmed as being a feasible access arrangement.
- 17.8.8 The transport study assessed junction capacity for the two site accesses in 2042, using industry-standard software. Both the northern and southern accesses, modelled with left-in/left-out arrangements, showed minimal delays and no significant congestion.
- 17.8.9 The northern access had a peak delay of 51 seconds (Scenario 3), with a LOS of F, while the southern access maintained a LOS of B. A signalised one-way shuttle operation for the underpass was also tested, indicating delays of under 5 seconds. The results indicate the proposed access designs could accommodate the projected future traffic flows effectively.

### 17.9 Junction Modelling Results Summary

#### Washington Roundabout (Junction 1):

- 17.9.1 Existing congestion in 2042, especially on the A24 North (PM peak), with delays of 88 seconds. Development traffic has minimal impact.

#### A283/A2037 Roundabout (Junction 2):

- 17.9.2 Operates within capacity in all scenarios. No further action required.

#### Clays Hill Roundabout (Junction 3):

- 17.9.3 Severe congestion on the A283 South arm in 2042. Development exacerbates delays slightly. No proposed capacity improvements, only tactile paving enhancements.

#### A283/A27 Slips (Junction 4):

- 17.9.4 Significant congestion expected on A283 South by 2042. Mitigation is required for the development's impact, as detailed in **Section 16**.

#### A283/Upper Shoreham Road (Junction 5):

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- 17.9.5 Already over capacity in 2025, worsening by 2042, with severe delays. Development has a minor impact, but no mitigation is required from the development.

### A283/A259 Roundabout (Junction 6):

- 17.9.6 Severe congestion on the A259, worsened by development. Development does not worsen congestion on the A283 South arm significantly. Local highway authority responsible for improvements.

### Junction Modelling Conclusion

- 17.9.7 The development minimally impacts congestion, but some junctions, such as the Washington Roundabout, A283/A27 Slips, and A283/Upper Shoreham Road, require mitigation due to pre-existing issues. Local highway authority (WSCC) is responsible for further capacity improvements.

- 17.9.8 To mitigate the impact of the proposed development on the A283 / A27 East and West Slips Roundabout, the following measures are proposed:

- i) Widening of the A283 South approach to increase vehicle stacking capacity.
- ii) Regrading and resurfacing the carriageway for better road conditions.
- iii) Lane markings to improve lane discipline and traffic flow.
- iv) Capacity testing shows that the junction will perform within capacity and experience delays of less than 30 seconds.

- 17.9.9 The proposed mitigation works are estimated to cost £50,000, including road widening, resurfacing, and lane markings.

## **17.10 Overall Conclusion**

- 17.10.1 Overall, the conclusion of this study is that delivery of the proposed development scenarios is feasible from a transport perspective, but this will require significant highway improvement measures coupled with reduction in private car mode share.

- 17.10.2 The conclusion of this Transport Study is that the delivery of the proposed development mix within the Shoreham Cement Works is feasible from a transport and highways perspective. The implementation of the Sustainable Transport Strategy at a cost of circa £2 million will be critical to the success of achieving the levels of mode shift sought by embedding sustainable travel behaviours to journeys made to and from the site by residents, employees and visitors from the outset.

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- 17.10.3 The traffic junction modelling has demonstrated that the proposed left-in/left-out site access arrangements can accommodate future traffic with minimal delays, while junctions already experiencing congestion will be managed through targeted mitigation. Overall, the development is expected to have a limited impact on the local highway network, with sustainable transport and other supporting measures reducing reliance on single occupancy private car journeys.



**RGP - Transport Planning and Infrastructure Design Consultants**

[enquiries@rgp.co.uk](mailto:enquiries@rgp.co.uk)

[www.rgp.co.uk](http://www.rgp.co.uk)

**Surrey Office** Old Mill Studios, Fry's Yard, 37-40 Bridge Street, Godalming GU7 1HP  
**London Office** 10 York Road, London SE1 7ND

T: 01483 861 681  
T: 020 7078 9662

