



Hampshire
County Council

**South Downs Local Plan
Site Allocations Highway Assessment
Additional Site Assessments
Highway Assessment Report**

Prepared by: **Steve Swain**Date: . . 20/03/2018

Checked by: **Iain Sloane.**Date: . . 22/03/2018

Approved by: **Andrew Tiffen**Date: . . 23/03/2018.

Project Reference R.J506339.01



Stuart Jarvis, Director of Environment, The Castle, Winchester



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April 2018

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Issue and Revision Record

Rev	Date	Originator	Checked	Approved	Issue
-	23/03/2018	Steve Swain	Iain Sloane	Andrew Tiffen	Draft
-	24/04/2018	Steve Swain	Nicola Waight	Dominic McGrath	Final with client revision

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1 Executive Summary

Hampshire County Council's (HCC) Engineering Consultancy was commissioned to carry out a Highways Assessment on behalf of the South Downs National Park Authority (SDNPA) to identify viable highway accesses to potential housing and gypsy sites within the SDNPA area. The highway assessment was based on a list of such sites issued by the Authority as part of the draft South Downs Local Plan to achieve a medium level of housing growth dispersed across the National Park area. Site visits were undertaken to determine whether the traffic flows generated by each site could safely access on to the local highway network. The assessment reviewed the existing highway geometry at each site to confirm the recommended visibility was achievable, and determined if any vegetation, road signs, road furniture etc. would require removal or reduction to optimise access arrangements. The requirements of pedestrians and cyclists have also been reviewed, and included in the assessment where relevant. Where it was deemed necessary alternative access arrangements have been suggested, and some assessment of the likely impact on the surrounding traffic flows has been carried out.

Accesses have been assessed in line with current highway standards, primarily in relation to Manual for Streets 2 (MfS2), with the Design Manual for Roads and Bridges (DMRB) as an additional reference document. The Roads in the South Downs document produced by the SDNPA has also been used as a reference point.

The feasibility of any suggested alternatives have been detailed in the report, but may be rejected due to issues outside the scope of the report such as the difficulty obtaining third party land. The assessment report does not include any specific detailed highway design input, and the various assessments have not been costed.

2 Introduction

2.1 Objectives of the study

The study will include a review and site survey of the proposed and/or identified access points to each site listed in Section 3 to ascertain the suitability of the various sites for the proposed housing development. If the current access is not deemed satisfactory then, where possible, alternative access points will be identified. The potential impact of the housing developments being looked at on the surrounding highway network due to increased vehicle movements will also be assessed, and any recommended improvements to the network highlighted. Locations and designs of accesses would need to be finalised through the Highways Development Planning process with the relevant Highway Authority.

2.2 Background Information

The policy approach of the SDNPA is to achieve safe and well-designed access for new development, which responds well to local context and character, and has regard to the Purposes of the National Park. Innovative and creative solutions are encouraged to support these objectives. As part of this policy the SDNPA is preparing a South Downs Local Plan (SDLP), which will include the allocation of sites for housing, Gypsies and Travellers and employment.

The emerging SDLP identifies a number of sites which are proposed to be taken forward as allocations. The current exercise seeks to provide additional evidence to confirm that there is a reasonable prospect of sites with potential access issues being achieved. A schedule of sites to be assessed was issued by SDNPA identifying specific issues that needed to be addressed as part of the assessment. This document should be read in conjunction with other reports supporting the draft Local Plan, including the transport assessment.

3 Site Highway Assessments

The assessment is based on a selection of potential sites from the Local Plan, where highway issues/access were considered by the SDNPA as most likely to present an issue. These sites include 19 housing sites and 2 gypsy/traveller sites, and the highway assessment carried out at each site includes visibility checks, provision for pedestrians and cyclists, any level difference issues, existing street furniture and vegetation. The impact the additional traffic generated by the proposed housing will have on existing vehicle movements on the surrounding network has been reviewed, including large commercial vehicles which may need to access the sites. The highway design criteria is based on Manual for Street 2 as well as referencing local design concepts included in the Roads in the South Downs document. The DMRB will be referenced only where design issues are deemed outside the scope of the MfS2.

In general a minimum visibility splay/stopping sight distance (SSD) of 2.4 x 40m has been applied for sites in a 30mph zone, as stated in MfS. In scenarios where observed traffic flows and speeds appear to be high, a commentary has also been provided in relation to DMRB requirements (SSD of 4.5 x 90m) pending more detailed work at pre-application stage to take account of detailed on-site surveys and appropriate design solutions for the context.

3.1 SD64 – Land south of London Road, Coldwaltham

The site is located on the southern side of the A29 on the western edge of Coldwaltham. The A29 is a busy 'A' road between Pulborough and Bognor Regis, and is subject to a 30mph speed limit. However, observation of the traffic flows in the location of the existing site access would indicate actual vehicle speeds in excess of 30mph. The site is bounded on the eastern side by a small residential development, with mainly open fields around the rest of the site. There is a small sewage works adjacent to the southern corner of the site, with a railway line further south. Beyond the railway line is the River Arun, with the site gradient falling uniformly from the access point southwards towards the river. The land is currently under agricultural use, with evidence of cattle grazing.

3.1.1 Proposed Access

It is proposed to locate the new site access at the existing field access point, as this location is likely to suit the proposed development being central to the developable area of the site. There is good visibility in both directions along the A29, with a visibility splay of 4.5m x 90m easily achievable in both directions, although minor cutting back of the existing hedge in both directions will be required. Although speeds and volumes of traffic would need to be confirmed by detailed on-site surveys at the pre-application stage (as stated in Section 3), the higher visibility requirement has been based on the DMRB standards to reflect the expectation that the 85th speed percentile is higher than the posted limit; use of the DMRB standard reflects a worst case scenario. A bus lay-by and shelter is located to the east of the existing access point, but is at limit of the 90m splay point and would not affect driver visibility.

3.2 SD89 – Pulens Lane, Sheet, East Hants

This site has been assessed as part of the original Highway assessment, and was rated poor due to the narrow access into the main site development area. The useable width of the access track is approximately 3.2m although it may be possible to widen the access by removing the band of vegetation along the northern edge. The track currently provides access for five properties off Pulens Lane, however this potential additional strip of land is unlikely to provide sufficient width to accommodate two-way traffic for the additional 30–32 properties. There was also the issue of the horizontal alignment of the proposed access around number 22 Pulens Lane. Due to the lack of width in this corner of the site the existing track cannot be widened sufficiently to provide adequate forward visibility for approaching traffic.

3.2.1 Site Access – Option 1

The original Highway Assessment study did not investigate any options requiring the purchase of third party land. However, if this is now a viable option an alternative access could be constructed along the southern boundary of the site. With the purchase and demolition of a single property in either Copse or Rother Close an access road could be built into the site from to Geddes Way, connecting via Pulens Crescent to the main B2199 Pulens Lane. The junction arrangement between the new access and Rother and Copse Close would be redesigned to give priority to the development to reflect the likely higher traffic flows and speeds. One of the advantages of this option is that it connects to an existing road network with easy access to the main B2199. The additional vehicle movements generated by 30-32 properties proposed for the site are unlikely to impact significantly on the existing traffic flows within the residential area, although traffic modelling may be required to confirm this.

A direct access on to Pulens Lane from the site by demolishing a single existing property was assessed and is feasible.

3.2.2 Site Access – Option 2

To achieve a nominal 6m wide access road into the site one option would be to purchase a strip of third party land alongside the existing track from numbers 16 and 18 Pulens Lane. By acquiring this strip of land approximately 3m wide a 6m access road with a 0.6m safety strip and a 1.5m minimum width footway could be constructed from the main road to the gated access into the proposed development area. This additional land would also allow the access road to be widened locally around the bend adjacent to number 22 to improve visibility for approaching traffic. The junction with Pulens Lane could be constructed to full DMRB standards, with 10m bell mouth radii allowing safe access and egress for large commercial vehicles such as refuse wagons and emergency vehicles. This will reduce the likelihood of shunt collisions when turning into the proposed development, and the necessity of large commercial vehicles such as refuse wagons and emergency vehicles crossing into the opposing lane when turning out.

The land take requirement from number 18 would result in the demolition of an existing garage, although it would be possible to re-build the garage within the existing plot area. There would be no requirement to demolish the property. However, for number 16 the property would require complete demolition or possibly partial demolition depending on the existing structure layout and the commercial viability of the remaining building.

3.3 SD73 – Petersfield Road, Greatham, East Hants

The proposed development site is currently occupied by Liss Forest Nursery, located off Petersfield Road, with a majority of the area covered by greenhouses and sheds. There is a property in the western corner of the site in which the owner resides, adjacent to the existing access which runs along the south western boundary. Adjacent to the site entrance is a BT telephone exchange building, which shares the site access, and on the other side of the exchange is the Greatham Primary School. On the opposite side of Petersfield Road from the site is the Greatham Village Hall and car park. The section of Petersfield Road through the village is subject to traffic calming measures, with various features including priority build-outs, pinch point sections and road markings. There is a short section of dedicated cycle route along the south west bound carriageway, starting with a cycle by-pass lane through the pinch point feature opposite the village hall, and terminating at the build out to the south of the school.

Traffic speeds through the village appear to be adhering to the 30mph speed limit, possibly as a result of the traffic calming measures. However, due to the presence of the school there is considerable increase in traffic around the site access at the drop off and pick up times. A majority of parents pick up their children park in the village hall car park, although this becomes congested and some parents park in the telephone exchange access and along the verges either side of the school.

3.3.1 Existing Access

The existing access is approximately 3.8m wide and will need to be widened to accommodate the proposed site traffic. However, the close proximity of the telephone exchange access and traffic calming features either side of the access could compromise any proposed widening. Visibility is good to the northeast of the existing access, although the 2.4 x 40m sightline is partially obscured by the railings outside the school to the southwest. There is also possible conflict with vehicles exiting the development blocking the existing

cycle lane which runs across the access. Implications for the cycle lane would need to be fully considered as part of the planning application stage i.e. through a transport assessment. The main advantage of using the existing access is that it is at grade with Petersfield Road. Northeast from the access just beyond the pinch point feature the road drops in level along the site frontage towards the junction with Bakersfield, although the site remains generally level, resulting in the difference in level between northern corner of the site and the carriageway of approximately 3m.

3.3.2 Alternative Site Access

A possible compromise solution would be to move the access further away from the school to reduce conflict with the school traffic, but at a location where the level difference to the carriageway would not greatly impact on the construction of the access. At a point approximately 60m to the northeast of the existing access the level difference to the carriageway is approximately 1.8m, which would result in a more manageable earthworks requirement. Visibility is good in both directions, and a more centralised location on the site frontage is likely to provide a more efficient road layout within the development site.

3.4 SD76 – Itchen Abbas House, Itchen Abbas, Winchester CC

The site at Itchen Abbas House is situated on the B3047 at the eastern edge of Itchen Abbas village. The B3047 joins the A33 north of Winchester and runs eastwards to Alresford and the A31. It provides a cut through for drivers leaving north out of Winchester to the A31, thus avoiding the often congested Junction 9 on the M3, resulting in traffic flows higher than would be expected for this type of road. The carriageway is generally narrow, below 5m in places, and is subject to a 30mph speed limit. The River Itchen flows east to west just south of the B3047, and the section of the carriageway adjacent to the House is prone to flooding during heavy rainfall. The development site currently forms part of the garden to the House, and is laid mainly to lawn falling downwards towards the road.

3.4.1 Site Access – Option 1

An existing track runs southwards along the eastern boundary of the site terminating in a wide tarmac bell mouth on the north side of the B3047 opposite the Fish Farm Bungalow. This track provides access to Clock Cottage and Itchen Cottage, and is also a Public Right of Way (PRoW). The current access to Itchen Abbas House exits on to this track approximately 20m back from the road, and forms the southern boundary to the proposed development area. This access point provides good visibility on to the B3047 in both directions and would be the preferred access for the proposed development. The existing track could be widened approximately 35m back from the channel line to allow an entrance point into the proposed development that could accommodate the required turning movements for large commercial vehicles such as refuse wagons. The access on to the B3047 has good visibility in both directions, easily achieving the required 2.4 x 40m sightlines.

3.4.2 Site Access – Option 2

An alternative access point could be created by cutting through the existing vegetation strip between the current Itchen House drive and the B3047. This strip contains several mature trees, some of substantial size, set in an embankment approximately 2m high. The resulting earthworks extent will almost certainly require the removal of two trees, with the associated landscape impact. An arboricultural survey will be required to ascertain the full impact on the tree line. This proposed access will result in a section of the existing house drive to the east of the proposed access, becoming redundant (as the existing drive will require realignment to connect into the new layout), and can therefore be used to mitigate the landscape loss. This option will provide good visibility in both directions and has the advantage of avoiding any conflict with the existing track access and the PRow.

3.5 SD63 – Land south of the A272 at Hinton Marsh, Cheriton/Kilmiston, Winchester CC

The proposed development consists of two private dwellings numbers 18 & 22 on the A272 Petersfield Road adjacent to the Hinton Arms public house on the eastern boundary of the Hinton Marsh Village. The A272 is a busy 'A' road between the M3 and A3 at Petersfield, and this stretch of road is subject to the 30mph limit. However, the existing accesses to the two properties suffered from reduced visibility due to the narrow existing verge width, with both below the 2.4 x 40m standard required for this type of location. There are also two electricity poles located in the verge which further compromise the visibility.

3.5.1 Site Access – Option 1

To provide an access on to the A272 the best option would be to locate it approximately at the current boundary between the two properties (18 and 22). However, if the proposed access is located at the current access of number 22 then the 2.4 x 40m visibility splay is possible, assuming the current landowner is in agreement. Both options would require the removal of an existing fence line and a number of mature trees. It is likely the two electricity poles would need to be re-located further back from the carriageway edge to provide clear sightlines.

3.5.2 Site Access – Option 2

To avoid any visibility and possible safety issues that may arise from an access directly on to the busy A272, an alternative option on the western boundary via Hopton's Retreat has been assessed. This would have the advantage of requiring less onerous visibility splays, and the access would be via the less trafficked Kilmeston Road. Hopton's Retreat currently serves six recently constructed properties off Kilmeston Road terminating in a courtyard area at the western boundary of the development site. The horizontal alignment of the accessway is narrow with tight bends, typical of a cul-de-sac to a small development. There is a pinch point at the western end of the cul-de-sac with an available width of only 3.8m. This is likely to be unacceptable for an access serving an additional 15 properties. It may be possible to reduce this pinch point by acquiring land from the corner of the garden to Elm Cottage to the south of the access, and cutting back the hedge on the northern side. This could provide an accessway of 5.0m with a 0.8m safety strip, although a more robust survey of the site would be required to confirm whether this could be achieved. The access junction with Kilmeston Road is wide with good visibility in both directions, and the required 2.4 x 40m visibility splays for this junction can easily be achieved.

From the pinch point eastwards the existing access way's horizontal alignment is virtually straight to number 3, with a 4m wide unmade compacted gravel construction reinforced with a Geogrid matting. Along the northern edge is a landscape strip which could be utilised to provide a widened carriageway, and allow the access to be moved away from the frontages of numbers 1, 2 & 3. The access then follows a sharp 'S' bend alignment passed number 4 and terminates in the garage forecourt between numbers 5 & 6. To gain access into the proposed development the two existing double garages would have to be demolished, with the possibility of providing additional land for both property owners within the development to accommodate new garages and drives. The main issue with providing access through the estate is negotiating the 'S' bend section, as this section will need to be widened to accommodate passing vehicles manoeuvring around the bends. It is difficult to ascertain without more detailed land ownership information the extent of each property boundary, and the individual rights each resident has over the accessway and landscape areas. However, by utilising the landscape areas it may be possible to provide localised widening, possibly constructed as over run areas, to allow vehicles to negotiate the bends, and provide sufficient forward visibility in both directions. Vehicle speeds are likely to be low along this section of the access, especially if a junction is introduced immediately inside the development area.

3.6 SD77 – Castelmer Fruit Farm, Kingston-near-Lewes, Lewes

The site access is via a narrow strip of land approximately 12m wide and 100m long off Ashcombe Lane on the northern edge of Kingston Village. Ashcombe Lane connects with the main A27 dual carriageway, and is used as a cut through between the A27 and the Newhaven docks area. As a result the traffic flows are higher than would be expected for a narrow village road, and vehicle speeds appear generally in excess of the 30mph limit. The land falls quite steeply from north to south across the site and this section of the village, and the site access forms part of a staggered crossroads with Ashcombe lane and The Avenue opposite. There is good visibility to the right up the hill, with a 2.4 x 40m sightline easily achievable, but the visibility to the left is obscured by

vegetation around the driveway to the property adjacent to the site access. It would appear planting has taken place on highway land and technically could be removed to improve the sightline. However, amendments to the junction layout may be required depending on the results of traffic surveys carried out at more detailed assessment stages.

3.6.1 Existing Access

There is an asphalt drive approximately 5m wide running from the junction with Ashcombe Lane into the main part of the site with an electrical sub station about 12m back from the junction. There is a clear width between the sub station and the site boundary of 7.6m, so a widened access road could be accommodated within this strip of land. There are two properties with accesses off the drive, with the main site property 'Appletrees' located at the end of the drive within the main body of the site. Due to the steep gradient across the site the drive falls away to the south by Appletrees, and terminates at a forecourt surrounded by old farm buildings. The site owner currently runs a small garage workshop from these farm buildings, and there are three private properties with access across the forecourt area to the main drive. The main area of the site stretches eastwards behind the farm buildings and currently contains rows of mature fruit trees.

3.6.2 Proposed Access

There is sufficient width to provide a 6m access into the site with 0.8m safety strips on either side, although due to the level differences substantial earthworks may be required should it be necessary to provide a maximum 15% gradient from the drive into the main site area. It is likely retaining structures will be required as the level of the proposed access decreases past 'Badgers' to protect the existing three private properties, and their current access arrangement may have to be realigned to suit any proposed site road system. Due to access requirements by large commercial vehicles, including refuse wagons and emergency vehicles a bell mouth radius of 10m at the junction with Ashcombe Lane is recommended by DMRB.

3.7 SD58 – Former Allotments, Alfriston, Wealden

The assessment for this site has already been completed in March 2017 and found that the two access points off North Street and via River Lane on to Waterloo Square were poor for various reasons. The North Street access is too narrow for two-way traffic, and cannot cater for large commercial or emergency vehicles without acquiring third party land from either side of the access. River Lane currently serves several properties but is less than 5m wide, and could not accommodate two-way traffic with a safety strip for pedestrians. Sightlines are restricted at the entry point into the site on the southeast corner, and the recommended visibility splay of 2.4 x 40m is unachievable at the junction with Waterloo Square without the purchase and demolition of third party properties. It would be possible to use either access as an emergency exit point during periods of flooding, but an alternative facility would be needed to allow emergency vehicles into the development.

3.7.1 Site Access – Option 1

The original assessment suggested possible alternative access points into the site. The simplest option in highway design terms would be to utilise the existing coach park and access road. The exit point from the development would be at the northeast corner, with the site access running across the existing coach park forecourt area to join the existing coach accessway and out to North Street. The southern coach bay may need to be moved approximately 5m eastwards towards the existing toilet block to allow the required alignment of the site access without conflicting with the coach manoeuvres. Provision would be required to accommodate pedestrians using the existing Public Right of Way (PRoW) across the access. This option has the advantage of good visibility, most of the route infrastructure already exists, and it takes the site traffic away from the congested town centre.

3.7.2 Site Access – Option 2

An alternative option would be to utilise the existing PRow north from the corner of the site, alongside The Willows, connecting into the existing property access road to North Street. Although viable this option has some disadvantages compared with Option 1. To provide a 6m wide access road would require a strip of the landscape area approximately 3m wide, including the removal of several mature trees. Between the site and the car park the access runs along the route of the existing PRow, which would ideally be diverted alongside the access requiring an additional 2m strip of the landscape area. This would require the existing coach bays to be moved approximately 4m to accommodate the new PRow route. The route runs alongside The Willow, and access from the property will be required via the new route.

4 Conclusions

A highway assessment has been carried out on the seven potential housing sites listed in the Site Assessment Table below, including two re-assessments from the original study, and each site has been rated Good, Average, or Poor. The rating is based on the ability to access/exit the various sites, the visibility splays available for exiting vehicles, level differences, the location of existing street furniture and services. The predicted impact the additional traffic generated by the proposed housing has on traffic flows along any existing access points, and on the surrounding road network in the area, may also affect the rating. It should be noted that detailed surveys, designs, property land searches or traffic modelling and transport assessments have not been carried out, and the assessment is based on site measurements and observations. A Poor rating does not necessarily discount a site, but indicates a series of issues that could make developing the site challenging.

Site Assessment Table

Site Ref.	Site Name	Comments	Rating
SD64	Land south of London Road, Coldwaltham, Horsham	Easy access on to the A29 with good visibility in both directions.	Good
SD89	Pulens Lane, Sheet, East Hants	A re-assessment of the existing report findings with the additional option now of purchasing third party land, providing the opportunity to improve the existing access	Good
SD73	Petersfield Road, Greatham, East Hants	Existing access is close to the adjacent local school. Alternative access provides a better option away from the school but would require earthworks.	Average

SD76	Itchen Abbas House, Itchen Abbas, Winchester CC	Utilising the existing drive provides a good access into the site. However, if this is not possible the alternative access option will require earthworks and possible landscape mitigation.	Good Average
SD63	Land south of the A272 at Hinton Marsh, Cheriton/Kilmiston, Winchester CC	If assessed via Manual for Streets the access option on to the A272 is Good. Hampshire as Highways Authority has indicated that the DMRB sightline standard may be more appropriate given the flows of traffic on this road. In this scenario the access is more challenging, and rated Average, with a requirement for an easement over third party land. The alternative through Hopton's Retreat is also challenging with a tight alignment and requirement for third party land.	Average
SD77	Castelmer Fruit Farm, Kingston-near-Lewes, Lewes	The proposed access into the site has few issues. Under a Manual for Streets assessment the access is Good. However, if the Highway Authority (West Sussex) deemed DMRB sightline standard was more appropriate given the flows of traffic on this road, the access is more challenging, and rated Average as the main junction would require third party land or carriageway realignment.	Average
SD58	Former Allotments, Alfriston, Wealden	The Poor rating for the original access options still stands. However Proposed Option 1 (through the coach park) provides a virtually ready made route connecting outside the main village centre.	Good