

Appendix A: WSCC Correspondence

WEST SUSSEX COUNTY COUNCIL CONSULTATION

TO:	Mid Sussex District Council FAO: Steven King
FROM:	WSCC – Highway Authority
DATE:	10 February 2026
LOCATION:	Land At Borde Hill Lane Haywards Heath West Sussex
SUBJECT:	DM/25/3129 Outline planning application for the erection of up to 125 dwellings, together with the provision of landscaping, open space, and associated development works, with access from Balcombe Road. All matters reserved except for access.
DATE OF SITE VISIT:	4 February 2026
RECOMMENDATION:	More Information Required

This is the first WSCC Highways response to the above outline planning application for the erection of up to 125 dwellings, together with the provision of landscaping, open space, and associated development works, with access from Balcombe Road. All matters reserved except for access.

Site location and access.

The site is located to the north of Haywards Heath town centre. The site is bounded by fields to the north, the London to Brighton railway line to the east, residential properties to the south and Borde Hill Lane to the west. The site location is shown in Figure 1 found in the TA.

The Penland Farm residential development, to the west of Balcombe Road, was responsible for the construction of the existing three-arm roundabout (known as the 'South Lodge' roundabout) at the junction of Balcombe Road with Borde Hill Lane and Hanlye Lane to which this development proposal proposes to construct a 'fourth' arm for access purposes. Borde Hill Lane runs north towards Balcombe and Crawley, with Hanlye Lane running west from the site access towards Cuckfield. Balcombe Road generally runs south towards Haywards Heath town centre. Borde Hill Lane and Hanlye Lane are subject to the national speed limit, becoming 30mph on the approaches to the South Lodge roundabout. Balcombe Road, at this location, also has a 30mph speed limit.

Drawing SDP-XX-XX-DR-D-305 shows the layout of the proposed 4-arm roundabout. Additional geometric properties are shown on Drawing SDP-XX-XX-DR-D-352.

The TA states that a speed survey, conducted on the approaches to the Borde Hill Lane/Balcombe Road/Hanlye Lane roundabout, has been used to determine actual approach speeds. The 85th percentile approach speeds on all arms of the junction are shown to be predominantly below 35mph. The TA continues by saying that this information has been used to confirm the appropriate visibility requirements. Forward visibility splays are shown on the drawing for all approaches to the roundabout.

Drawings SDP-XX-XX-DR-D-353 to 355 show the swept path vehicle tracking for some vehicles for turning movements at the roundabout.

The design has been subject to a Stage 1 Road Safety Audit. Details of this can be found in Appendix D in the TA. Further comments about the Safety Audit are found below under sub-heading Road Safety.

With regard to the design of the roundabout, the Highway Authority requires the following additional information:

- 1. A design audit will be required to demonstrate that the geometry and visibility splays (including forward visibility splays and visibility at pedestrian and cycle crossing points, too) comply with DMRB and that there are no departures from standard.**
- 2. The design is for a roundabout with no over-runable areas. The swept paths show that a bin lorry and Ford Transit can traverse the roundabout without needing the overruns. However, further information is required about the traffic composition on Balcombe Road – whether it includes 16.5m HGVs or the like. Given that such vehicles could use the road, swept paths for them are required, too. Buses should be tracked, too.**
- 3. A tactile-paved pedestrian crossing should be provided on the northern arm of the roundabout. This will require the extension of the footway emerging from the north side of the development access arm up to the traffic island which is currently without provision for pedestrians to cross.**
- 4. Consideration to cycle facilities should be given at the roundabout to enable such users to enter and leave the development, including provision for entering and leaving the carriageway on Hanlye Lane and Balcombe Road (northern arm).**
- 5. The applicant should show details of how pedestrians and cyclists would be able to enter and leave the shared-use/emergency path shown emerging to the east of the proposed site access and where it meets both the spine road and Balcombe Road.**
- 6. There is a significant level difference between the roundabout and the field where the new access arm is proposed. There will need to be considerable earthworks to reduce the roundabout approach gradient on that arm. Significant approach gradient could mask give way markings at the roundabout. Applicant to provide further detail of this (a long section would assist here).**
- 7. Two of the traffic islands appear narrow, such that clearance to street furniture may be problematic. Designers to review and adjust if necessary.**
- 8. WSCC is currently planning to revise signage at and on the approaches to the roundabout based on its current three-arm design (currently planned for Q1 2026/27). As the applicant proposes changes to the roundabout, including provision of a fourth arm to access the proposed development, they will also need to revise signage at the roundabout. As such, they should liaise directly with Richard Humphrey (Richard.humphrey@westsussex.gov.uk) at WSCC to co-ordinate changes at this location and to ensure that any changes made as a consequence of the development do not prejudice delivery of the scheme (also see comment in point 7 above).**

Should any changes be made to the design of the roundabout, those changes should be put before the Road Safety Audit team for comment, with those comments being added to the RSA Decision Log and forwarded to the Highway Authority to review.

Proposed development.

The TA describes the application as follows:

"Outline planning application for the erection of up to 125 dwellings, together with provision of landscaping, open space, and associated development works, with access from Balcombe Road."

Traffic impact of development including trip distribution onto local road network.

Trip generation: -

The TRICS database (version 8) has been used by the applicant to estimate the likely trip generation for the proposed development. The full output from the TRICS database can be found in Appendix E.

The following criteria have been used when selecting appropriate sites from the database for the residential units:

- Land Use 03/A – Residential, Houses Privately Owned
- Sites in England and Wales, excluding Greater London
- Development sizes from 50 to 250 units
- Suburban and Edge of Town sites surveyed from 2016 onwards
- Population within 1-mile radius up to 10,000
- Population within 5-mile radius up to 100,000
- Weekday surveys
- Only latest surveys included where a site has been re-surveyed

Table 6.1 (taken from the TA and replicated below) shows the 'Total People' trip rates for the peak hours 08:00-09:00 and 17:00- 18:00:

	Trip Rate In	Trip Rate Out
08:00 - 09:00	0.188	0.669
17:00 - 18:00	0.525	0.265

Table 6.1

Table 6.2 (again, taken directly from the TA) shows the vehicle trip rates for the peak hours 08:00-09:00 and 17:00-18:00:

	Trip Rate In	Trip Rate Out
08:00 - 09:00	0.117	0.326
17:00 - 18:00	0.334	0.159

Table 6.2

The capacity analysis is based on a development proposal of 125 homes. Table 6.3, below) summarises the number of people and vehicle trips associated with a development of 125 homes using the trip rates in the tables above:

	Total People Trips			Two-way	Vehicle Trips		
	Trips In	Trips Out			Trips In	Trips Out	Two-way
08:00 - 09:00	24	84	108		15	41	56
17:00 - 18:00	66	33	99		42	20	62

Table 6.3

Table 6.4 shows the 12-hour weekday vehicle trip rates for 07:00-19:00. It is anticipated that a development of 125 homes would generate around 514 two-way trips in this twelve-hour period:

	Trip Rate In	Trip Rate Out	Two-way	Trips In	Trips Out	Two-way
07:00 - 19:00	2.045	2.067	4.112	256	258	514

Table 6.4

The applicant says that the anticipated method of travel to work presented in Figure 4.2 (found in the TA) has been used to estimate the number of trips by each travel mode. The trips by model of travel are summarised in Table 6.5, below:

	AM Peak Hour				PM Peak Hour		
	Modal Split	Trips In	Trips Out	Two-way	Trips In	Trips Out	Two-way
Driving a car or van	53.6%	13	45	58	35	18	53
Passenger in a car or van	2.6%	1	2	3	2	1	3
On foot	11.3%	3	9	12	7	4	11
Bicycle	1.3%	0	1	1	1	0	1
Train	28.2%	7	24	31	19	9	28
Bus, minibus, or coach	1.0%	0	1	1	1	0	1
Motorcycle or moped	0.7%	0	1	1	0	0	0
Taxi	0.3%	0	0	0	0	0	0
Other	0.9%	0	1	1	1	0	1

Table 6.5

The predicted number of vehicle trips in Table 6.5 for the AM peak hour is similar to the number of trips estimated by using the Vehicle Trips category in the TRICS database. The applicant says that the trip generation in Table 6.3 has been used in the capacity analysis to present a robust calculation of the vehicle trips from the proposed development.

Trip Distribution - The applicant has used the origin-destination data from the 2011 Census for the Mid Sussex 011 area to understand the likely trip distribution of traffic generated by the proposed development. They continue by saying that the number of journeys from Mid Sussex 011 to Super Output Areas (Mid Layer) in Mid Sussex, all other local authority districts in the South East region, and other regions in the UK has been collected and appropriate routing using the Google Maps journey planner applied to compile the proportion of trips travelling in each direction. They also say that where there are viable alternative routes available, the trips have been divided between these routes based on distance and journey time.

The trip distribution calculations are presented in Appendix F, found in the TA. Table 6.6 (below) summarises the proposed distribution to be used for the development's vehicle trips:

Route	Proportion
South via Balcombe Road	39%
North via Borde Hill Lane	30%
West via Hanlye Lane	31%

Table 6.6

Figure T2, at the end of the TA, shows the calculated proposed development traffic movements for 125 homes in the AM peak hour and PM peak hour.

Vehicular access to and from the proposed development will be via the new fourth arm on the enlarged and reconfigured roundabout.

The proposed development traffic flows shown in Figure T2 estimates that there will be more than 30 development trips in each peak hour using the site access junction.

The West Sussex County Council Transport Assessment Methodology states:

"Generally the study area will include all junctions where there is a predicted increase in total entry flows of 30 or more vehicles in any hour – or if the junction already experiences peak period congestion an increase of 10 or more vehicles – as a result of the development proposals."

Whilst development traffic using Balcombe Road is predicted to be less than 30 vehicle movements in each of the peak hours, the applicants have also considered the junction of Balcombe Road/College Road/Mill Green Road for capacity in the peak hours as this junction is approaching capacity at peak times. The distribution of the development traffic flows at this junction is based on the existing turning proportions.

Highway Capacity Impact: -

South Lodge roundabout (site access).

The applicants have used the TRL Junctions 10 software package for future year of 2030 to model the site access junction, being five years from the year of application. The RFC values give the Ratio of Flow to Capacity (RFC), which indicates what proportion of each arm's total capacity is being utilised. RFC values above 0.85 signify that the arm is nearing capacity and RFC values over 1 indicate that the arm is at or exceeding capacity.

The TA says that 2030 traffic flows have been obtained by adding growth to the 2024 traffic flows using the NTM/TEMPro growth factor for Mid Sussex of 1.0693 for the AM peak and 1.0690 for the PM peak. The 2030 traffic flows are shown in Figure T3 in the TA without development and Figure T4 (again in the TA) with the development traffic included. The results of the analysis are summarised in Table 7.1 overleaf, with the full output presented in Appendix G, also found in the TA:

2030 with development	AM Peak Hour	Queue	PM Peak Hour	
	RFC		RFC	Queue
Site Access	0.04	0	0.02	0
Balcombe Road	0.48	1	0.42	1
Harvey Road	0.49	1	0.39	1
Borde Hill Lane	0.32	1	0.30	0

Table 7.1

The assessment shows that the roundabout operates well under-capacity in 2030, based on the traffic flows modelled and with the addition of the development traffic, with virtually no queuing on any of the arms of the roundabout.

Balcombe Road/College Road/Mill Green Road.

The existing priority junction has been modelled using the TRL Junctions 10 software package for the years 2024 and 2030. Table 7.2 summarises the operation of the priority junction based on the observed 2024 traffic flows:

2024 without development	AM Peak Hour	Queue	PM Peak Hour	
	RFC		RFC	Queue
Balcombe Road right turn	0.90	7	0.73	3
Mill Green Road	0.69	2	0.75	3

Table 7.2

Table 7.3 summarises the operation of the junction in 2030 without the proposed development traffic added:

2030 without development	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
Balcombe Road right turn	0.97	13	0.79	4
Mill Green Road	0.75	3	0.82	4

Table 7.3

Table 7.4 summarises the operation of the junction in 2030 with the proposed development traffic added. The applicants have said that the turning movements of the proposed development traffic has been assumed to be proportional to the existing turning proportions:

2030 with development	AM Peak Hour		PM Peak Hour	
	RFC	Queue	RFC	Queue
Balcombe Road right turn	0.99	15	0.80	4
Mill Green Road	0.76	3	0.84	4

Table 7.4

The addition of the proposed development traffic sees a marginal increase in the RFC values and a slight increase in queue lengths in the AM peak at the junction. However, the small increase in traffic at this junction does not result in a significant impact due to the proposed development traffic.

Vision-led assessment.

The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these should be applied. The Government published proposed reforms to the NPPF in July 2024. Following consultation, a revised version of the NPPF was adopted in December 2024.

Paragraph 115 states:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- (a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*
- (b) safe and suitable access to the site can be achieved for all users;*
- (c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 48 ; and*
- (d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach."*

No form of vision appears in the text of the TA, nor any targets, method of monitoring or penalties should measures in any vision-led approach not be achieved. Any such, the applicant should update the TA by including a vision for the scheme in accordance with current best practice, including measures to support the vision designed to reduce traffic impact of the development on the local road network plus additional measures should the vision not be fully realised. A monitoring strategy should also be provided. This is in addition to any Travel Plan measure that might be forthcoming for the development.

Road safety.

Stage 1 Road Safety Audit (RSA) – Seven ‘problems’ were identified by the RSA team based on the design as currently submitted. These are as follows:

3.1.1 PROBLEM

Location: Approaches to the proposed roundabout.

Summary: Inappropriate surfacing could lead to overshoot collisions or rear end shunts.

The proposals do not include the introduction of anti-skid surfacing or detail the Polished Stone Value (PSV) to be used on the approaches to the roundabout. Surfacing with an insufficient PSV could lead to overshoot or rear end shunt collisions. Further, vehicles approaching the roundabout may be straddling two different surface types and may experience differential braking, which under sudden severe braking conditions could lead to loss of control collisions.

RECOMMENDATION

It is recommended high friction surfacing or surfacing with a high PSV be provided on all the approaches to the roundabout.

3.1.2 PROBLEM

Location: Proposed roundabout.

Summary: Surface water on carriageway could lead to loss of control collisions.

Kerblines are proposed to be altered, where no details of the drainage proposal or carriageway profiles have been provided for assessment. Low or flat areas may cause ponding of surface water. This could be detrimental to road safety and could lead to loss of control accidents.

RECOMMENDATION

It is recommended drainage details and vertical profiles should be provided at Safety Audit Stage 2.

3.2.1 PROBLEM

Location: Approaches to proposed roundabout.

Summary: Lack of forward visibility may increase the risk of junction related or shunt type collisions at the roundabout.

Stopping Sight Distances have been provided for assessment, where there is concern that the forward visibility splays on all approaches, excluding Hanlye Lane pass over non-highway land. Vegetation in these splays could restrict visibility, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.

RECOMMENDATION

It is recommended that the forward visibility splays should be within the adoptable highway, or that a suitable covenant should be arranged to ensure that the splay is not obstructed by vegetation.

3.2.2 PROBLEM

Location: Proposed roundabout.

Summary: Insufficient space could lead to side swipe accidents.

The approaches to the roundabout are shown as having a two-lane entry with a two-lane circulatory carriageway, where the exits narrow to a wide single lane. There is concern that if two lanes of traffic decide to use the same exit then insufficient space or lack of lane designation markings and signage could lead side swipe collisions.

RECOMMENDATION

It is recommended that single lane approaches are installed or that the signage and lane destination markings be employed to avoid merging traffic issues at the exits.

3.4.1 PROBLEM

Location: Proposed pedestrian crossing points on Access Road and Balcombe Road at the roundabout.

Summary: Restricted visibility could lead to vehicle to pedestrian collisions.

No details relating to the pedestrian / traffic intervisibility splays at the crossings have been provided for assessment. There is concern that excess vegetation, particularly in the spring and summer months on the Access Road and Balcombe Road arms of the roundabout may restrict intervisibility. Restricted intervisibility could lead to vehicle to pedestrian collisions.

RECOMMENDATION

It is recommended that the vegetation be cut back and periodically maintained to retain visibility.

3.4.2 PROBLEM

Location: Proposed pedestrian refuge on Balcombe Road.

Summary: Restricted visibility could lead to vehicle to pedestrian collisions.

No details relating to the pedestrian / traffic intervisibility splays at the crossing have been provided for assessment. There is concern that excess vegetation, particularly in the spring and summer months on the northeastern side of the carriageway may restrict intervisibility. Restricted intervisibility could lead to vehicle to pedestrian collisions.

RECOMMENDATION

It is recommended that the vegetation be cut back and periodically maintained to retain visibility.

3.5.1 PROBLEM

Location: Proposed pedestrian refuge on Balcombe Road.

Summary: Absence of high mounted 'Keep left' signs and illuminated bollards could lead to loss of control collisions.

At this early stage in the design the proposed pedestrian refuge does not have signage, where the refuge is on a semi-rural road. There is concern that vehicle splay and detritus may obscure the bollards and may lead to the island being inconspicuous, where a lack

of conspicuity, particularly in conditions of poor visibility may cause kerb strikes and possible loss of control collisions.

RECOMMENDATION

It is recommended that 'Keep left' bollards should be installed and that high mast mounted signs to diagram 610 (Keep left) should also be installed, further that the signage aspect to diagram 610 should be illuminated e.g. solar powered.

Design Team's response to the RSA recommendations.

The Design Team has accepted all the recommendations.

A DRAFT of the Decision Log with WSCC highways (the 'Overseeing Organisation') comments attached to it, will need to be provided to the applicant for consideration, with the FINAL copy capturing the agreed course of actions as recommended in any FINAL RSA being made available to the planning case officer when completed. However, given that changes might need to be made to the roundabout because of the points made on page 2 of this response, the RSA Decision log should be held back in case it needs to be added to. If changes are made, then a revised version should be produced by the applicant and made available to the Highway Authority to add its parts.

Personal Injury Accidents (PIAs) - A review of the personal injury accident data in the vicinity of the site and reported since 1st January 2020 has been undertaken by interrogating the Crashmap and West Sussex County Council Collision Locations Map websites. Figure 4.3, found in the TA, shows the locations of one 'serious' incident (red) involving two vehicles, and one 'slight' incident (yellow) involving one vehicle, in the vicinity of the existing roundabout.

Sustainable/non-car access to development.

Walking and cycling – The TA includes walking and cycling isochrones to show the local area that can be reached in a 5, 10, 15 and 20-minute journey time from the site and can be found at the end of that document. Figure 2 (also in the TA) shows the walking isochrones and local facilities within a reasonable distance from the site. The TA says that Haywards Heath railway station and its surrounding facilities can be reached in 20 minutes on foot.

Balcombe Road and Penland Road are promoted by Mid Sussex District Council and Haywards Heath Town Council as suitable routes for cycling and useful for connecting the town centre with the Borde Hill Estate. Figure 3 in the TA shows the cycling isochrones. The TA says that Haywards Heath, as well as destinations including Lindfield, Cuckfield, Balcombe and Ardingly can be reached with a 20-minute cycle ride.

Public transport (buses) - The nearest bus stops to the site are located on Penland Road, approximately 300m to the south of the site. The timetable for local buses is appended to the TA in Appendix B and the frequency of services summarised in Table 4.1, found below:

Service Number	Route	Monday-Friday		Saturday		Sunday	
		Daytime	Evening	Daytime	Evening	Daytime	Evening
31A	Cuckfield – Haywards Heath – N Chailey – Newick – Uckfield	120 minutes	.	120 minutes	.	.	.

Table 4.1

As the frequency of services is low (one bus every two hours and not all day), the applicant should explore with the local operator (Compass Travel*) ways of improving this to provide a higher frequency. Evidence of discussions with them should be provided. Additionally, commitment should be given to providing improvements at local bus stops in the form of real time passenger information, shelters and seats (and show where these stops are). If no stops are nearby (which appears to be the case), then the applicant should look where new stops could be located close to the site.

(*Compass Travel - Chris Chatfield cchatfield@compass-travel.co.uk or Michael Bishop mbishop@compass-travel.co.uk)

Public transport (railways) - The nearest railway station is Haywards Heath. The station is approximately 1.5km from the site and can be reached via Balcombe Road and Burrell Road. Frequent services operate to London Victoria via Gatwick Airport, Littlehampton, Hove, Worthing, Brighton, Hove, London Bridge, Bedford and Cambridge. On weekdays during the daytime there are 20 services per hour.

Travel Plan.

The Travel Plan needs to be updated in accordance with current WSCC guidance* and also include the following:

- 1. Commitment to £150 travel vouchers for each household**
- 2. A series of additional measures should trip reduction targets within the Travel Plan are not achieved**

Both the Travel Plan and its associated monitoring fee would need to be secured by S106 Agreement.

(*This can be made available on request).

Parking.

The TA says that parking at the proposed development will conform to WSCC guidance for new developments.

Car parking - The site is located at the boundary of Parking Behaviour Zone 1, as set out in the WSCC parking guidance note. Parking Behaviour Zone 3 is immediately to the south of the site, with Parking Behaviour Zone 4 to the southwest, incorporating the Penland Farm residential development.

Table 5.1 (extract taken from the TA and found below) shows the Residential Parking Demand (spaces per dwelling) for various sizes of homes:

Number of bedrooms	Number of Habitable Rooms	PBZ1	PBZ3	PBZ4
1	1 to 3	1.5	0.9	0.9
2	4	1.7	1.3	1.1
3	5 to 6	2.2	1.8	1.7
4+	7 or more	2.7	2.5	2.2

Table 5.1

Cycle parking - One cycle space will be provided for 1 & 2-bedroom homes and 2 cycle spaces for 3+ bedroom homes. 1 & 2-bedroom flats will have 0.5 spaces per home, and 3+ bedroom flats will have 1 space provided in communal storage.

EV parking is not mentioned. This and the overall parking provision for the development, would be checked again at any detailed reserved matters/discharge of condition stage.

Internal road layout.

While it is acknowledged that the proposal only seeks detailed consideration of the access arrangements to and from the development, the Highway Authority has the following observations to make based on the illustrative layout of the internal road layout which the applicant is requested to note of (list should not be considered exhaustive):

1. In-line with Active Travel England's aspirations and LTN 1/20 guidance, priority at junctions should be considered for pedestrians and cyclists throughout the development.
2. Improved permeability for walking and cycling should be made throughout the scheme.
3. Some of the internal roads appear to give a 'mixed message' regarding priority for users, e.g. some roads have different surfacing shown (denoting shared surface arrangements) but still include a footway running alongside one side of the carriageway (the latter which should not be provided if a shared surface environment is proposed). This should be re-examined should the scheme move to the next stage of design. WSCC provides standard details by using the following link: - [Road agreements - West Sussex County Council](#)
4. Lack of service margins in places could make adoption under S38 not possible.

Conclusion.

Additional information is required, details of which can be found in the main body of this response in **highlighted green text** and summarised below. When replies are available, the case officer should re-consult the Highway Authority, at which time it will consider the proposal further:

1. A design check of the roundabout to be provided.
2. A plan should be provided to show amendments to the roundabout and providing the additional information as set-out in points 1-8 on page 2 of this response.
3. Provision of a Vision-Led TA for the development, including details of mitigation to support the vision, additional measures should the vision not be fully realised plus a monitoring strategy (this should be separate to any Travel Plan for the site).
4. Provision of a further version of the Road Safety Audit Decision Log with the design team's responses captured on the same plus any additions as a result of any changes as referred to in points 1-8 on page two of this response.

5. Evidence of discussions with local bus provider – namely Compass Buses – to explore increased service frequency of service, plus commitment to improved or new stops with real time passenger information, shelters and seating.
6. Travel Plan update.

Response ends.

Tim Townsend
West Sussex County Council – Planning Services

Appendix B: Speed Survey Information

Technical Note – Speed Surveys

February 2026

Introduction

This Technical Note provides information on the speed surveys undertaken to review requirements for visibility at the proposed roundabout. The pre-application response from WSCC Planning Services requested the speed survey to determine actual approach speeds such that the suitable visibility could be demonstrated.

Speed Surveys

Automatic traffic counts (ATCs) were undertaken for a period of seven days from Wednesday 3rd November to Tuesday 9th November 2021 on each of the approaches to the roundabout. The ATCs recorded vehicle speeds in both directions on each of the roads surveyed.

The speed surveys were conducted in a neutral month during school term time. There were no significant adverse weather conditions during the duration of the surveys.

The locations of the ATCs are shown in Figure 1. The ATCs on Borde Hill Lane and Hanlye Lane are approximately 50m from the junction. The ATC on Balcombe Road is approximately 85m from the junction. The location of the surveys allowed free-flow traffic speeds to be recorded.



Figure 1 – ATC speed survey locations

Figures 2 to 4 show the ATC loops installed on the junction approaches.



Figure 2 – Speed survey location on Borde Hill Lane (view looking north)



Figure 3 – Speed survey location on Balcombe Road (view looking south)



Figure 4 – Speed survey location on Hanlye Lane (view looking east)

Technical Note – Speed Surveys
February 2026

Figures 5 to 7 show the recorded speeds for each arm of the junction.

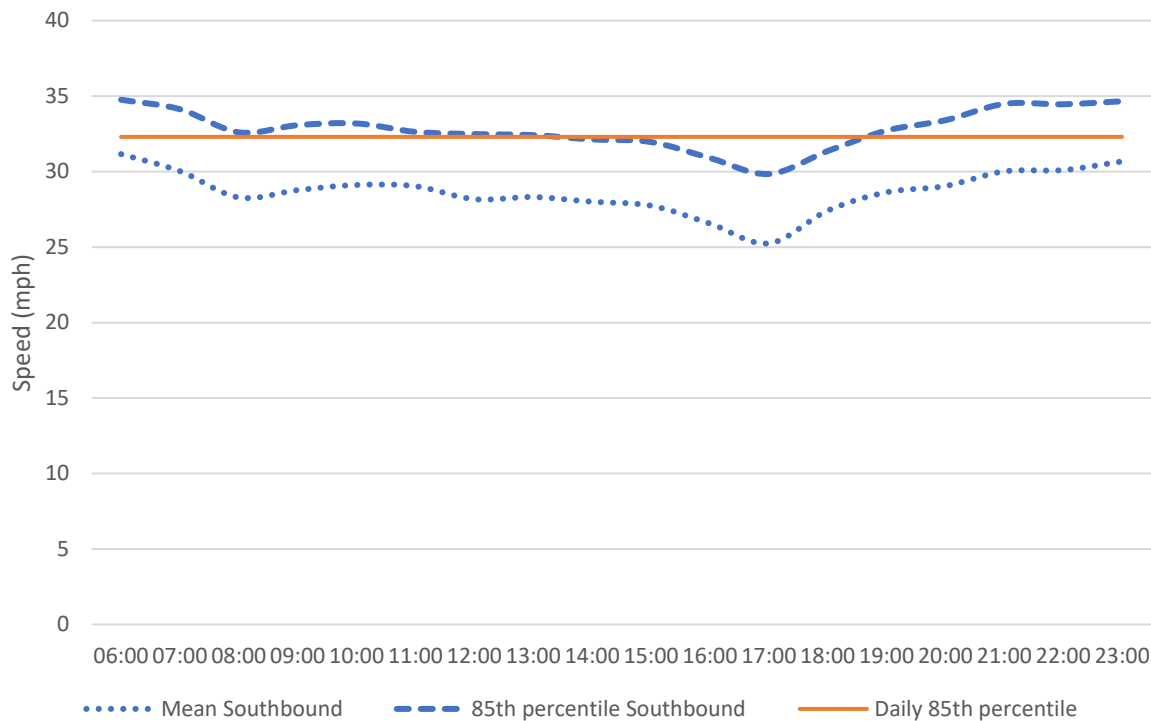


Figure 5 – Mean and 85th percentile speeds recorded on Borde Hill Lane

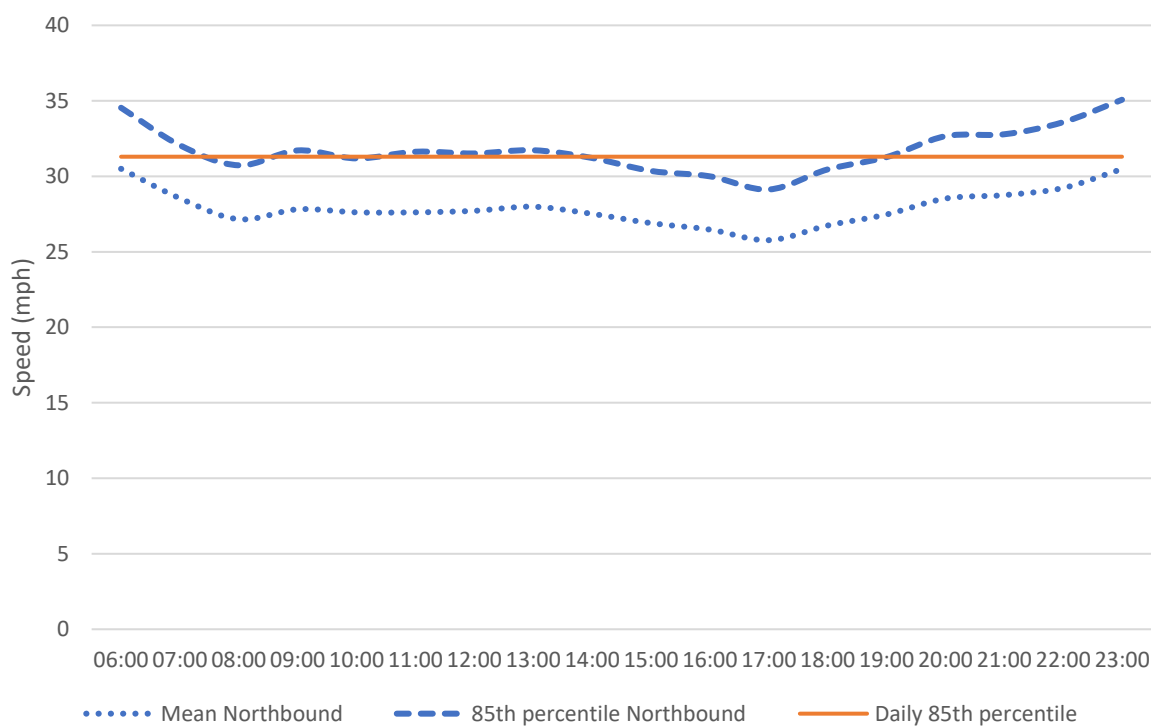


Figure 6 – Mean and 85th percentile speeds recorded on Balcombe Road

Technical Note – Speed Surveys

February 2026

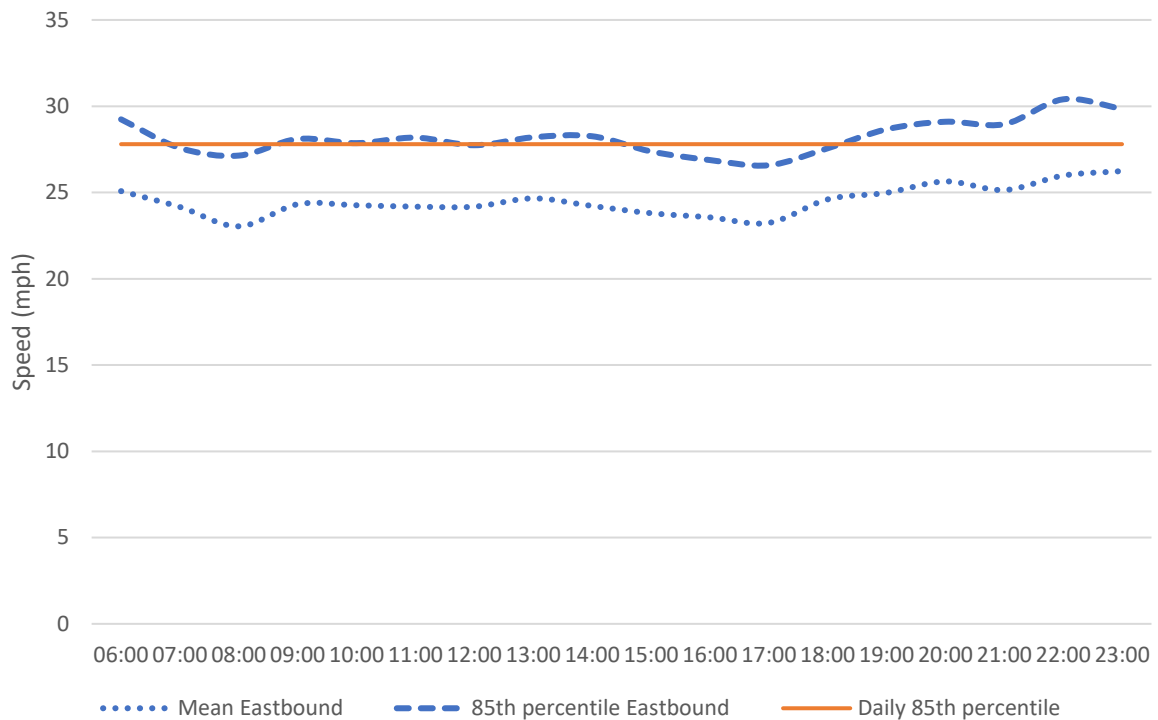


Figure 7 – Mean and 85th percentile speeds recorded on Hanlye Lane

The average 85th percentile speeds on the approach to the roundabout are summarised below for each arm of the junction:

- Borde Hill Lane: 32.3mph
- Balcombe Road: 31.3mph
- Hanlye Lane: 27.8mph

This collated speed information has been used to inform the requirements for visibility at the proposed junction based on current technical guidance and standards.

Appendix C: Design Audit



SDP

Design Audit Proposed Access Design

Land north of Balcombe Road,
Haywards Heath

April 2026

Contents

1 Introduction.....2

1.1 Overview 2

2 Design of the Access3

2.1 Compact Roundabout Design 3

2.2 Pedestrian and Cycle Access 5

3 Conclusions7

3.1 Summary 7

Document Details:

Revision	Date	Filename	Author	Check / Review
1	April 2026	SDP-DA-070426-01	NM	SDP

No person other than the client may copy (in whole or in part) use or rely on the contents of this document, without the prior written permission of SDP. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole.

© SDP 2026

1 Introduction

1.1 Overview

- 1.1.1 This design audit has been carried out with regards to the proposed access arrangements serving the 'Land north of Balcombe Road' residential development in Haywards Heath.
- 1.1.2 The design audit should be read in conjunction with drawing SDP-XX-XX-DR-D-305/P7, which shows the proposed roundabout layout and drawing SDP-XX-XX-DR-D-352/P5 which illustrates the roundabout geometry. Drawing SDP-XX-XX-DR-D-310/P5 shows the vertical profile of the development access.
- 1.1.3 The roundabout has been assessed based on guidance contained within the National Highways document CD 116: Geometric design of roundabouts. The access arrangements also take account of guidance in the National Planning Policy Framework (NPPF), Manual for Streets, Inclusive Mobility and Cycle Infrastructure Design (LTN 1/20).
- 1.1.4 The speed limit at the junction is 30mph. Approach speeds have been confirmed by speed surveys. A design speed of 50kph is appropriate for the main arms of the junction.

2 Design of the Access

2.1 Compact Roundabout Design

- 2.1.1 A 'compact' roundabout design uses narrower entry and exit lanes and tighter entry and exit radii to achieve slower approach and circulating speeds. Paragraph 2.3.3. of CD 116 states that either a compact or a normal roundabout may be provided for roads with a posted speed limit of 40 mph or below.
- 2.1.2 The single lane entries, circulating lane and exits give little opportunity for passing or weaving and a greater need for drivers to stop and give way. Vehicle paths are constrained and easier to anticipate making junctions potentially safer for pedestrians and cyclists. Therefore, in line with paragraph 115 of the NPPF, access arrangements are prioritised towards sustainable transport modes.
- 2.1.3 Drawing SDP-XX-XX-DR-D-305/P7 shows the proposed compact roundabout layout. The design incorporates an overrun area that large vehicles such as buses and articulated lorries are required to use. All other vehicles are expected to use the single circulating lane.
- 2.1.4 Drawing SDP-XX-XX-DR-D-352/P5 provides details of the roundabout geometry and visibility to the give-way lines on all arms. A 43m forward visibility profile is shown, consistent with Manual for Streets requirements for 30mph vehicle speeds, as identified by the speed surveys. Forward visibility profiles of 70m, consistent with DRRB requirements, are also shown along the main approaches.
- 2.1.5 Drawing SDP-XX-XX-DR-D-310/P5 shows the vertical profile of the development access. This shows that the give-way line at the roundabout can be seen from a driver's eyeline when approaching the junction.
- 2.1.6 The following sections describe the geometric requirements for a compact roundabout with reference to CD 116 and other relevant documents.
- Inscribed circle diameter
- 2.1.7 The minimum value of the ICD of a compact roundabout shall be 28m and should not exceed 36m (CD 116 para 3.5-3.5.1). The proposed roundabout has an ICD of 33.2m.

Circulatory carriageway

- 2.1.8 The width of the circulatory carriageway shall be between 1.0 and 1.2 times the maximum entry width, excluding any overrun area (CD 116 para 3.6) and should not exceed 6m (CD 116 para 3.6.7). The proposed roundabout has a circulatory carriageway with of 5.4m excluding overrun (1.2 times the proposed entry width of 4.5m).

Central island

- 2.1.9 Table 3.8 of CD 116 gives the turning widths required for compact roundabouts. The proposed design complies with this and allows the design vehicle to complete turning movements.

Entry widths

- 2.1.10 Lane widths at the give way line for compact roundabouts shall be no greater than 4.5m (CD 116 para 3.14) and should be 4.5m for single lane entries (CD 116 para 3.14.1). Maximum entry widths of 4.5m are proposed.

Entry angle

- 2.1.11 The entry angle should be no less than 20 degrees and no greater than 60 degrees (CD 116 para 3.18.1). The proposed layout complies with this.

Entry kerb radius

- 2.1.12 The entry kerb radius should not be less than 10m or greater than 100m (CD 116 para 3.19.1-3.19.2). The proposed entry radii range from 13m to 18m.

Entry path radius

- 2.1.13 The entry path radius shall not exceed 70m (CD 116 para 3.24). The entry path radii for the proposed roundabout range from 25m to 64m.

Exit width

- 2.1.14 For compact roundabouts, exit widths should be similar to entry widths (CD 116 para 3.28.11). This methodology has been adopted in the proposed design.

Forward visibility on approach

- 2.1.15 Visibility on the approach to the roundabout shall conform to CD 109 (CD 116 para 3.46). The layout provides 70m stopping site distance on Balcombe Road, Hanlye Lane and Borde Hill Lane. The site access arm has been shown with a 43m stopping site distance based on Manual for Streets guidance and the anticipated speed on the approach to the roundabout. However, by ensuring that planting on the inside of the curve is kept at a low-level, a longer visibility splay compliant with CD 109 can be provided.

Forward visibility at entry

- 2.1.16 For roundabouts with an ICD of less than 40m, drivers should be able to see the circulating carriageway for the whole junction from a distance of 15m back from the give way line (CD 116 para 3.49). The roundabout geometry drawing confirms that all arms comply with this requirement.

Pedestrian crossing visibility

- 2.1.17 At the give way line, drivers shall be able to see the full width of a pedestrian crossing across the next exit if it is within 20m of the give way line on that arm (CD 116 para 3.59). The layout confirms that visibility is achieved from all give way lines to the crossings on the next exit.

Suitability of compact roundabouts for cyclists

- 2.1.18 LTN 1/20 states that compact roundabouts are appropriate for cycling in mixed traffic conditions where traffic volumes and speeds are (or can be made) low, and the lane widths are narrow so that with other traffic cyclists can safely share the single lane entries, exits and the circulatory carriageway in the primary position.

2.2 Pedestrian and Cycle Access

- 2.2.1 Details of the proposed pedestrian and cycle link are shown on Drawing SDP-XX-XX-DR-D-305/P7, showing the visibility at this access and for pedestrians using the refuge island crossing.

Path widths

- 2.2.2 The proposed layout shows a 2m pedestrian path and 3m width two-way cycle lane (LTN 1/20 Table 5-2).

Access controls

- 2.2.3 LTN 1/20 para 8.3.5 promotes the use of bollards at a minimum of 1.5m spacing, which allows users to approach in a straight line whilst permitting all types of cycle and mobility scooter to gain access. Removeable bollards are proposed that would allow access by adapted cycles when in place, and by emergency vehicles when removed.

Visibility

- 2.2.4 Visibility splays at the pedestrian crossing are shown on Drawing SDP-XX-XX-DR-D-305/P7 from the back of the footway to a distance of 43m along the carriageway (Manual for Streets Table 7.1).

3 Conclusions

3.1 Summary

- 3.1.1 This design audit assesses the proposed access arrangements for the Land north of Balcombe Road residential development and details design standards and confirms that the design complies with these.
- 3.1.2 The proposed layout has also been subject to an independent road safety audit to highlight any safety issues associated with the proposed design.

Appendix D: Compass Travel Correspondence

Neal Murphy

From: Chris Chatfield <>
Sent: 13 February 2026 16:48
To: Neal Murphy - SDP
Cc: Michael Bishop
Subject: RE: Bus facility provision enquiry - Mid Sussex DM/25/3129 Land at Borde Hill Lane, Haywards Heath

Hi Neal

Thank you for contacting us about this. As you may be aware most of our bus services in mid-Sussex are operated under contract to WSCC so we would need to work closely with them regarding any service changes or improvements.

I do need to explain that this service 31/31A operates a loop in both directions via Hanlye Lane and Cuckfield. This effectively provides an hourly service to/from Haywards Heath – albeit one way takes slightly longer via Cuckfield. Whilst an increase to half-hourly (hourly in each direction) would be great I don't really think the cost could be justified and it is certainly unlikely to ever be viable without a large subsidy. This is also likely to be the case regarding an evening or Sunday service on this route.

Improved and additional bus stops are always a good investment and additional stops at the point you mention would be good. These were in fact proposed in the past but have never been forthcoming.

Please keep me in the loop and if I can be of any further help please let me know.

Regards
Chris

Chris Chatfield
Managing Director



Pilgrim House | 51-63 St. Dunstan's Road | Worthing | West Sussex | BN13 1AA
Tel: 01903 690025 | www.compass-travel.co.uk

Compass Travel (Sussex) Ltd registered in England No. 04096610 – Pilgrim House, 51-63 St Dunstan's Road, Worthing. BN13 1AA.

The information in this email is privileged, confidential and protected from disclosure. If you are not the intended recipient please email us immediately upon receipt and delete the email and any attachments from your computer. Whilst we have endeavoured to ensure that this email and any attachments are free from viruses, we cannot be held liable. It is the recipient's responsibility to scan any attachments before opening.

From: Neal Murphy - SDP <>
Sent: 12 February 2026 13:06
To: Chris Chatfield <>; Michael Bishop <>
Subject: Bus facility provision enquiry - Mid Sussex DM/25/3129 Land at Borde Hill Lane, Haywards Heath

Good afternoon Chris / Michael,

I'm writing in relation to Mid Sussex planning application DM/25/3129 Land at Borde Hill Lane, Haywards Heath. We have been asked by WSCC Planning Services to explore any potential improvements to the current bus service provision that may be possible through this application for up to 125 homes.

The nearest bus stops to the potential development are located on Penland Road, to the south of the site. We are keen to explore whether there would be support for an addition pair of stops, potentially on Hanlye Lane in the vicinity of the South Lodge roundabout / Coniston Avenue. This would reduce the walking time from the proposed development to bus stops and also provide greater accessibility for the existing Penlands development and the forthcoming 'Reinventing Borde Hill' proposals. The attached plan shows the proposed development along with the locations of the existing bus stops and potential additional stop location.

I'd be grateful if you could also advise on any future proposals for changes / improvements to the current two-hourly 31A service which uses Hanlye Lane / Balcombe Road, and whether an increased frequency of service is thought to be beneficial or achievable based on your knowledge of the existing service.

I look forward to hearing from you. In the meantime, if you have any queries that I can assist with please do get in touch.

Many thanks for your help.

Kind regards

Neal Murphy

Transport Planner CTPP MCIHT

SDP

Appendix E: Junction Assessment

Junctions 10											
ARCADY 10 - Roundabout Module											
Version: 10.0.3.1598 © Copyright TRL Software Limited, 2021											
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com											
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution											

Filename: Site access 2026.j10
Path: C:\Jobs\Sugworth Farm\Junction Analysis
Report generation date: 02/04/2026 13:49:42

- »2030 with dev, AM
- »2030 with dev, PM
- »2030 with dev less 10%, AM
- »2030 with dev less 10%, PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2030 with dev											
Arm 1	D23	0.1	5.22	0.05	A	50 % [Arm 3]	D24	0.0	4.59	0.02	A	76 % [Arm 2]
Arm 2		1.5	6.68	0.60	A			1.1	5.60	0.53	A	
Arm 3		1.4	7.48	0.59	A			0.8	5.69	0.46	A	
Arm 4		0.5	5.61	0.35	A			0.5	5.09	0.33	A	
	2030 with dev less 10%											
Arm 1	D25	0.0	5.19	0.05	A	50 % [Arm 3]	D26	0.0	4.58	0.02	A	77 % [Arm 2]
Arm 2		1.5	6.66	0.60	A			1.1	5.59	0.53	A	
Arm 3		1.4	7.46	0.59	A			0.8	5.67	0.46	A	
Arm 4		0.5	5.60	0.35	A			0.5	5.07	0.32	A	

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	04/02/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SDP\NealMurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75					✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2024	AM	DIRECT	08:00	09:00	60	15			
D2	2024	PM	DIRECT	17:00	18:00	60	15			
D3	Dev	AM	DIRECT	08:00	09:00	60	15			
D4	Dev	PM	DIRECT	17:00	18:00	60	15			
D5	2030	AM	DIRECT	08:00	09:00	60	15		Simple	D1 *1.0693
D6	2030	PM	DIRECT	17:00	18:00	60	15		Simple	D2*1.0690
D23	2030 with dev	AM	DIRECT	08:00	09:00	60	15	✓	Simple	D5+D3
D24	2030 with dev	PM	DIRECT	17:00	18:00	60	15	✓	Simple	D6+D4
D25	2030 with dev less 10%	AM	DIRECT	08:00	09:00	60	15	✓	Simple	D5+(D3*.9)
D26	2030 with dev less 10%	PM	DIRECT	17:00	18:00	60	15	✓	Simple	D6+(D4*.9)

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2030 with dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D23 - 2030 with dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.76	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	50	Arm 3	6.76	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Site Access		
2	Balcombe Road		
3	Hanlye Lane		
4	Borde Hill Lane		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.00	4.50	11.0	13.0	33.2	20.0		
2	4.00	4.50	16.0	18.0	33.2	20.0		
3	3.60	4.50	19.0	16.0	33.2	20.0		
4	3.20	4.50	16.0	18.0	33.2	20.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1	0.562	308.920
2	0.600	347.307
3	0.591	339.361
4	0.586	329.936

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D23	2030 with dev	AM	DIRECT	08:00	09:00	60	15	✓	Simple	D5+D3

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

08:00 - 08:15

		To			
From		1	2	3	4
	1	0.00	3.72	2.96	2.86
	2	1.33	0.00	122.97	74.85
	3	1.06	93.03	0.00	16.04
	4	1.03	51.33	12.83	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
From		1	2	3	4
	1	0.00	3.72	2.96	2.86
	2	1.33	0.00	113.35	72.71
	3	1.06	139.01	0.00	28.87
	4	1.03	67.37	17.11	0.00

Demand (Veh/TS)

08:30 - 08:45

		To			
From		1	2	3	4
	1	0.00	3.72	2.96	2.86
	2	1.33	0.00	113.35	69.50
	3	1.06	143.29	0.00	16.04
	4	1.03	39.56	7.49	0.00

Demand (Veh/TS)

08:45 - 09:00

		To			
From		1	2	3	4
	1	0.00	3.72	2.96	2.86
	2	1.33	0.00	86.61	54.53
	3	1.06	95.17	0.00	10.69
	4	1.03	34.22	4.28	0.00

Vehicle Mix

Heavy Vehicle Percentages

08:00 - 08:15

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	2	1
	3	0	2	0	0
	4	0	4	0	0

Heavy Vehicle Percentages

08:15 - 08:30

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	1	1
	3	0	2	0	0
	4	0	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	1	0
	3	0	1	0	7
	4	0	5	0	0

Heavy Vehicle Percentages

08:45 - 09:00

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	1	0	10
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.05	5.22	0.1	A	9.54	38.16
2	0.60	6.68	1.5	A	178.30	713.19
3	0.59	7.48	1.4	A	136.59	546.37
4	0.35	5.61	0.5	A	59.57	238.29

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	9.54	9.54	156.34	218.61	0.044	9.49	3.40	0.0	0.0	4.302	A
2	199.15	199.15	18.56	330.96	0.602	197.67	147.28	0.0	1.5	6.680	A
3	110.13	110.13	78.46	286.77	0.384	109.51	137.77	0.0	0.6	5.060	A
4	65.19	65.19	94.88	264.36	0.247	64.86	93.09	0.0	0.3	4.504	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	9.54	9.54	222.66	181.93	0.052	9.53	3.42	0.0	0.1	5.220	A
2	187.39	187.39	22.88	329.85	0.568	187.54	209.30	1.5	1.3	6.333	A
3	168.94	168.94	76.94	287.77	0.587	168.16	133.48	0.6	1.4	7.478	A
4	85.50	85.50	140.77	245.57	0.348	85.30	104.33	0.3	0.5	5.608	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	9.54	9.54	190.62	199.33	0.048	9.54	3.42	0.1	0.1	4.743	A
2	184.18	184.18	13.37	337.40	0.546	184.30	186.80	1.3	1.2	5.883	A
3	160.39	160.39	73.76	289.90	0.553	160.52	123.91	1.4	1.3	6.967	A
4	48.08	48.08	145.70	233.07	0.206	48.35	88.57	0.5	0.3	4.880	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	9.54	9.54	134.37	232.76	0.041	9.55	3.43	0.1	0.0	4.033	A
2	142.48	142.48	10.12	341.22	0.418	142.97	133.80	1.2	0.7	4.550	A
3	106.92	106.92	58.91	298.61	0.358	107.62	94.18	1.3	0.6	4.730	A
4	39.52	39.52	98.18	271.71	0.145	39.61	68.34	0.3	0.2	3.878	A

2030 with dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D23 - 2030 with dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.50	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	76	Arm 2	5.50	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D24	2030 with dev	PM	DIRECT	17:00	18:00	60	15	✓	Simple	D6+D4

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:00 - 17:15

		To			
From		1	2	3	4
	1	0.00	1.81	1.44	1.40
	2	3.81	0.00	96.21	76.97
	3	3.03	111.18	0.00	20.31
	4	2.93	65.21	17.10	0.00

Demand (Veh/TS)

17:15 - 17:30

		To			
From		1	2	3	4
	1	0.00	1.81	1.44	1.40
	2	3.81	0.00	104.76	56.66
	3	3.03	87.66	0.00	9.62
	4	2.93	51.31	24.59	0.00

Demand (Veh/TS)

17:30 - 17:45

		To			
From		1	2	3	4
	1	0.00	1.81	1.44	1.40
	2	3.81	0.00	80.18	52.38
	3	3.03	79.11	0.00	20.31
	4	2.93	60.93	10.69	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
From		1	2	3	4
	1	0.00	1.81	1.44	1.40
	2	3.81	0.00	57.73	34.21
	3	3.03	86.59	0.00	11.76
	4	2.93	69.49	4.28	0.00

Vehicle Mix

Heavy Vehicle Percentages

17:00 - 17:15

		To				
From		1	2	3	4	
	1	0	0	0	0	
	2	0	0	0	0	
	3	0	0	0	0	
	4	0	0	0	0	

Heavy Vehicle Percentages

17:15 - 17:30

		To				
From		1	2	3	4	
	1	0	0	0	0	
	2	0	0	0	0	
	3	0	0	0	0	
	4	0	0	4	0	

Heavy Vehicle Percentages

17:30 - 17:45

		To				
From		1	2	3	4	
	1	0	0	0	0	
	2	0	0	0	0	
	3	0	0	0	0	
	4	0	0	0	0	

Heavy Vehicle Percentages

17:45 - 18:00

		To				
From		1	2	3	4	
	1	0	0	0	0	
	2	0	0	0	0	
	3	0	0	0	0	
	4	0	2	0	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.02	4.59	0.0	A	4.65	18.60
2	0.53	5.60	1.1	A	143.58	574.33
3	0.46	5.69	0.8	A	109.66	438.65
4	0.33	5.09	0.5	A	78.83	315.32

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	4.65	4.65	192.32	200.78	0.023	4.63	9.71	0.0	0.0	4.588	A
2	176.99	176.99	19.83	335.41	0.528	175.89	177.12	0.0	1.1	5.605	A
3	134.52	134.52	81.67	291.06	0.462	133.67	114.05	0.0	0.8	5.687	A
4	85.24	85.24	117.27	261.24	0.326	84.76	98.06	0.0	0.5	5.087	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	4.65	4.65	163.89	216.18	0.022	4.65	9.78	0.0	0.0	4.254	A
2	165.23	165.23	27.40	330.24	0.500	165.32	141.14	1.1	1.0	5.462	A
3	100.31	100.31	62.00	302.69	0.331	100.66	130.72	0.8	0.5	4.461	A
4	78.83	78.83	94.77	270.82	0.291	78.90	67.89	0.5	0.4	4.692	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	4.65	4.65	150.83	224.11	0.021	4.65	9.78	0.0	0.0	4.102	A
2	136.37	136.37	13.61	339.14	0.402	136.70	141.87	1.0	0.7	4.452	A
3	102.45	102.45	57.68	305.25	0.336	102.44	92.63	0.5	0.5	4.437	A
4	74.55	74.55	86.00	279.55	0.267	74.60	74.13	0.4	0.4	4.393	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	4.65	4.65	160.31	218.20	0.021	4.65	9.77	0.0	0.0	4.214	A
2	95.74	95.74	7.15	343.02	0.279	96.03	157.81	0.7	0.4	3.647	A
3	101.38	101.38	39.54	315.98	0.321	101.41	63.64	0.5	0.5	4.194	A
4	76.69	76.69	93.42	271.54	0.282	76.67	47.53	0.4	0.4	4.618	A

2030 with dev less 10%, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D23 - 2030 with dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.75	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	50	Arm 3	6.75	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D25	2030 with dev less 10%	AM	DIRECT	08:00	09:00	60	15	✓	Simple	D5+(D3*.9)

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

08:00 - 08:15

	To				
From		1	2	3	4
	1	0.00	3.35	2.66	2.57
	2	1.20	0.00	122.97	74.85
	3	0.95	93.03	0.00	16.04
	4	0.93	51.33	12.83	0.00

Demand (Veh/TS)

08:15 - 08:30

	To				
From		1	2	3	4
	1	0.00	3.35	2.66	2.57
	2	1.20	0.00	113.35	72.71
	3	0.95	139.01	0.00	28.87
	4	0.93	67.37	17.11	0.00

Demand (Veh/TS)

08:30 - 08:45

		To			
From		1	2	3	4
	1	0.00	3.35	2.66	2.57
	2	1.20	0.00	113.35	69.50
	3	0.95	143.29	0.00	16.04
	4	0.93	39.56	7.49	0.00

Demand (Veh/TS)

08:45 - 09:00

		To			
From		1	2	3	4
	1	0.00	3.35	2.66	2.57
	2	1.20	0.00	86.61	54.53
	3	0.95	95.17	0.00	10.69
	4	0.93	34.22	4.28	0.00

Vehicle Mix

Heavy Vehicle Percentages

08:00 - 08:15

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	2	1
	3	0	2	0	0
	4	0	4	0	0

Heavy Vehicle Percentages

08:15 - 08:30

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	1	1
	3	0	2	0	0
	4	0	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	1	0
	3	0	1	0	7
	4	0	5	0	0

Heavy Vehicle Percentages

08:45 - 09:00

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	0	0
	3	0	1	0	10
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.05	5.19	0.0	A	8.59	34.34
2	0.60	6.66	1.5	A	178.16	712.66
3	0.59	7.46	1.4	A	136.49	545.94
4	0.35	5.60	0.5	A	59.47	237.88

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8.59	8.59	156.35	218.61	0.039	8.55	3.06	0.0	0.0	4.284	A
2	199.02	199.02	17.98	331.30	0.601	197.54	146.91	0.0	1.5	6.659	A
3	110.02	110.02	78.05	287.01	0.383	109.41	137.48	0.0	0.6	5.050	A
4	65.09	65.09	94.65	264.49	0.246	64.76	92.81	0.0	0.3	4.499	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8.59	8.59	222.66	181.93	0.047	8.58	3.07	0.0	0.0	5.191	A
2	187.26	187.26	22.30	330.19	0.567	187.40	208.94	1.5	1.3	6.312	A
3	168.83	168.83	76.52	288.01	0.586	168.06	133.18	0.6	1.4	7.456	A
4	85.40	85.40	140.53	245.71	0.348	85.20	104.05	0.3	0.5	5.600	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8.59	8.59	190.62	199.33	0.043	8.59	3.08	0.0	0.0	4.720	A
2	184.05	184.05	12.79	337.75	0.545	184.16	186.42	1.3	1.2	5.866	A
3	160.28	160.28	73.34	290.14	0.552	160.41	123.62	1.4	1.3	6.948	A
4	47.98	47.98	145.46	233.19	0.206	48.24	88.28	0.5	0.3	4.872	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8.59	8.59	134.37	232.76	0.037	8.59	3.08	0.0	0.0	4.014	A
2	142.34	142.34	9.54	341.57	0.417	142.84	133.42	1.2	0.7	4.539	A
3	106.81	106.81	58.49	298.85	0.357	107.51	93.89	1.3	0.6	4.721	A
4	39.42	39.42	97.94	271.85	0.145	39.51	68.05	0.3	0.2	3.876	A

2030 with dev less 10%, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D23 - 2030 with dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.48	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	77	Arm 2	5.48	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D26	2030 with dev less 10%	PM	DIRECT	17:00	18:00	60	15	✓	Simple	D6+(D4*.9)

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:00 - 17:15

		To			
From		1	2	3	4
	1	0.00	1.63	1.30	1.26
	2	3.43	0.00	96.21	76.97
	3	2.73	111.18	0.00	20.31
	4	2.64	65.21	17.10	0.00

Demand (Veh/TS)

17:15 - 17:30

		To			
From		1	2	3	4
	1	0.00	1.63	1.30	1.26
	2	3.43	0.00	104.76	56.66
	3	2.73	87.66	0.00	9.62
	4	2.64	51.31	24.59	0.00

Demand (Veh/TS)

17:30 - 17:45

		To			
From		1	2	3	4
	1	0.00	1.63	1.30	1.26
	2	3.43	0.00	80.18	52.38
	3	2.73	79.11	0.00	20.31
	4	2.64	60.93	10.69	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
From		1	2	3	4
	1	0.00	1.63	1.30	1.26
	2	3.43	0.00	57.73	34.21
	3	2.73	86.59	0.00	11.76
	4	2.64	69.49	4.28	0.00

Vehicle Mix

Heavy Vehicle Percentages

17:00 - 17:15

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Heavy Vehicle Percentages

17:15 - 17:30

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	4	0

Heavy Vehicle Percentages

17:30 - 17:45

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Heavy Vehicle Percentages

17:45 - 18:00

		To			
From		1	2	3	4
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.02	4.58	0.0	A	4.19	16.74
2	0.53	5.59	1.1	A	143.20	572.80
3	0.46	5.67	0.8	A	109.36	437.44
4	0.32	5.07	0.5	A	78.54	314.15

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	4.19	4.19	192.33	200.78	0.021	4.16	8.74	0.0	0.0	4.577	A
2	176.61	176.61	19.55	335.58	0.526	175.51	176.94	0.0	1.1	5.585	A
3	134.21	134.21	81.15	291.37	0.461	133.37	113.91	0.0	0.8	5.668	A
4	84.95	84.95	116.59	261.63	0.325	84.47	97.93	0.0	0.5	5.067	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	4.19	4.19	163.89	216.18	0.019	4.19	8.80	0.0	0.0	4.246	A
2	164.85	164.85	27.11	330.41	0.499	164.94	140.96	1.1	1.0	5.444	A
3	100.01	100.01	61.48	303.00	0.330	100.35	130.57	0.8	0.5	4.450	A
4	78.54	78.54	94.08	271.20	0.290	78.60	67.75	0.5	0.4	4.676	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	4.19	4.19	150.83	224.11	0.019	4.19	8.80	0.0	0.0	4.091	A
2	135.99	135.99	13.33	339.31	0.401	136.32	141.69	1.0	0.7	4.442	A
3	102.14	102.14	57.16	305.56	0.334	102.14	92.48	0.5	0.5	4.424	A
4	74.26	74.26	85.31	279.95	0.265	74.31	73.99	0.4	0.4	4.378	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	4.19	4.19	160.31	218.20	0.019	4.18	8.80	0.0	0.0	4.204	A
2	95.36	95.36	6.86	343.19	0.278	95.65	157.63	0.7	0.4	3.639	A
3	101.08	101.08	39.02	316.28	0.320	101.10	63.49	0.5	0.5	4.184	A
4	76.40	76.40	92.73	271.92	0.281	76.37	47.39	0.4	0.4	4.602	A

Appendix F: Road Safety Audit



Road Safety Audit Stage 1

Sugworth Farm

Proposed Access Arrangement

Borde Hill Lane / Balcombe Road / Hanlye Lane

Haywards Heath

West Sussex

Date: March 2026

Report produced for: SDP

Report produced by: M & S Traffic

DOCUMENT CONTROL SHEET

M&S Traffic has prepared this report in accordance with the instructions from SDP. M&S Traffic shall not be liable for the use of any information contained herein for any purpose other than the sole and specific use for which it was prepared.

Report Title:	Sugworth Farm Road Safety Audit Stage 1
Document reference:	SDP/26/SugFrm/1/MM
Prepared by:	M & S Traffic
On behalf of:	West Sussex County Council

Record of Issue

Status	Prepared (Name)	by:	Checked by: (Name)	Approved by (Signature)	Date Approved
1	Martin Morris		Alex Allen		17 th March 2026

Distribution

Organisation	Contact	Copies
SDP	Neal Murphy	-

CONTENTS

Document Control Sheet	2
Contents	3
1 Introduction	4
2 Safety issues raised at previous Audits	6
3 Items raised at the Stage 1 Audit	7
4 Issues identified during the Stage 1 Audit that are outside the terms of reference	12
5 Auditors Statement	13

Appendix A..... List of drawings

Appendix B..... Comment location drawing

Appendix C..... Designer's Response

1 INTRODUCTION

1.1 This report describes a Stage 1 Road Safety Audit carried out on a proposed roundabout associated with a circa 120-unit residential development to the north-east of the existing three-arm roundabout at Balcombe Road / Hanlye Lane / Borde Hill Lane, Haywards Heath, as detailed below:

- A 4-armed roundabout with pedestrian crossing points on the Access Road, Balcombe Road and Hanlye Lane.
- A 3.7m wide pedestrian / emergency access linking the Access Road to Balcombe Road.
- A pedestrian refuge on Balcombe Road.

The Audit was requested by the design organisation, SDP, Buncton Barn, Buncton Lane, Bolney, West Sussex, RH17 5RE, on behalf of West Sussex County Council, as the Overseeing Organisation.

1.2 The Audit Team membership was as follows:

Martin Morris, PGD, MCIHT, MSoRSA – Audit Team Leader
National Highways Approved RSA Certificate of Competency

Alex Allen, AMIHE - Audit Team Member
RoSPA Cert. of Professional Competency

1.3 The audit was undertaken following the principles of GG 119, The Design Manual for Roads and Bridges. The documents available at the time the report was compiled are detailed in Appendix A.

1.4 The Audit took place at the Gillingham offices of M&S Traffic in March 2026 and comprised an examination of the documents provided as listed in Appendix A. A joint visit and inspection was undertaken on the 12th March 2026 between 10:15 and 11:00. Weather conditions at the time were overcast and the road surfaces were dry. Traffic flows and free flow speeds were moderate. There were low pedestrian flows, and no cyclist movements observed during the site visit.

1.5 The report has been compiled, only with regards to the safety implications for road users of the layout presented in the supplied drawings. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any “Technical Check” function on these proposals. It is assumed that the Project Sponsor is satisfied that such a “Technical Check” has been successfully completed prior to requesting this safety audit.

1.6 The auditors have not been informed of any Departures from Standards in this scheme construction.

- 1.7 All comments and recommendations are referenced to the detailed drawings and the locations have been detailed relating to the plans supplied with the audit brief, Appendix B.

2 SAFETY ISSUES RAISED AT PREVIOUS AUDITS

- 2.1 A previous iteration of the scheme was subject to Audit in February 2025 by M&S Traffic.
- 2.2 Items 3.1.1, 3.1.2, 3.2.1, 3.2.2, 3.4.1, 3.4.2 and 3.5.1 remain a cause for concern and are repeated in paragraphs 3.1.1, 3.1.2, 3.2.1, 3.2.2, 3.4.1, 3.4.2 and 3.5.1 of this report.

3 ITEMS RAISED AT THE STAGE 1 AUDIT

3.1 General

3.1.1 PROBLEM

Location: Approaches to the proposed roundabout.

Summary: Inappropriate surfacing could lead to overshoot collisions or rear end shunts.

The proposals do not include the introduction of anti-skid surfacing or detail the Polished Stone Value (PSV) to be used on the approaches to the roundabout. Surfacing with an insufficient PSV could lead to overshoot or rear end shunt collisions. Further, vehicles approaching the roundabout may be straddling two different surface types and may experience differential braking, which under sudden severe braking conditions could lead to loss of control collisions.

RECOMMENDATION

It is recommended high friction surfacing or surfacing with a high PSV be provided on all the approaches to the roundabout.

3.1.2 PROBLEM

Location: Proposed roundabout.

Summary: Surface water on carriageway could lead to loss of control collisions.

Kerblines are proposed to be altered, where no details of the drainage proposal or carriageway profiles have been provided for assessment. Low or flat areas may cause ponding of surface water. This could be detrimental to road safety and could lead to loss of control accidents.

RECOMMENDATION

It is recommended drainage details and vertical profiles should be provided at Safety Audit Stage 2.

3.1.3 PROBLEM

Location: Proposed roundabout.

Summary: Inappropriate construction could increase the risk of loss of control collisions.

It appears that a central overrun area around the centre island is proposed, where construction of the over-run area has not been provided for assessment. A low upstand could present a hazard, particularly to powered two-wheel riders. Additionally, previous experience has shown that due to impact loadings, these kerbs can work loose and stand higher than expected, which could lead to kerb strikes and loss of control collisions.

RECOMMENDATION

It is recommended that the over-run area have sufficient contrast and that details are provided for assessment.

3.1.4 PROBLEM

Location: Development arm of the roundabout.

Summary: Lack of containment barrier could increase severity of a loss of control collision.

There is a pronounced level difference from the access road and possibly the roundabout to the surrounding land and this may require the installation of a containment barrier. Lack of a suitable containment barrier could increase the severity of a loss of control collision.

RECOMMENDATION

It is recommended that a Road Restraints Risk Assessment Process (RRRAP) or similar assessment should be undertaken to determine the aggressiveness of the slope, and that suitable barriers should be installed as required, or that the height difference is altered, and that details are supplied for assessment.

3.2 Local Alignment

3.2.1 PROBLEM

Location: Approaches to proposed roundabout.

Summary: Lack of forward visibility may increase the risk of junction related or shunt type collisions at the roundabout.

Stopping Sight Distances have been provided for assessment, where there is concern that the forward visibility splays on approaches, could pass over non-highway land. Vegetation in these splays could restrict visibility, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.

RECOMMENDATION

It is recommended that the forward visibility splays should be within the adoptable highway, or that suitable covenants should be arranged to ensure that the splay is not obstructed by vegetation.

3.2.2 PROBLEM

Location: The proposed roundabout.

Summary: Inappropriate construction could lead to loss of control collisions.

No horizontal or vertical alignment details have been provided where the proposed roundabout is on a topographical area where there is a pronounced slope to the south. Whilst the Audit is not a design check CD 116 states:

“Longitudinal gradients on the approach to a roundabout should not exceed 2% over a distance of at least 20 metres, measured from the give way or stop line.”

There is concern that excessive slopes on the vertical alignments could increase the risk of vehicle loss of control collisions.

RECOMMENDATION

It is recommended that the geometric parameters of the roundabout be fully compliant with DMRB and be supplied for assessment.

3.2.3 PROBLEM

Location: Development approach to proposed roundabout.

Summary: Lack of forward visibility may increase the risk of junction related or shunt type collisions at the roundabout.

Stopping Sight Distances have been provided for assessment, where the object height at the roundabout is shown as 0.6m and this should be 0.26m, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.

RECOMMENDATION

It is recommended that the forward visibility splay should be to CD109.

3.3 Junctions

3.3.1 PROBLEM

Location: At the proposed Roundabout.

Summary: Insufficient capacity may lead to rear end shunts or side impact collisions.

No modeling results were provided for assessment, where the existing two-lane approaches are being reduced to a single lane entry. Further, there is a crest on Balcombe Road and should and the forward visibility of a queue could be reduced. Excessive queuing at the roundabout could lead

to driver frustration and the use of inappropriate gaps, which may lead to rear end shunts or side impact collisions.

RECOMMENDATION

It is recommended that the roundabout should operate without excessive queueing and that modelling results should be provided for assessment.

3.4 Non-Motorised User Provision

3.4.1 PROBLEM

Location: Proposed pedestrian crossing points on Access Road and Balcombe Road at the roundabout.

Summary: Restricted visibility could lead to vehicle to pedestrian collisions.

No details relating to the pedestrian / traffic intervisibility splays at the crossings have been provided for assessment. There is concern that excess vegetation, particularly in the spring and summer months on the Access Road and Balcombe Road arms of the roundabout may restrict intervisibility. Restricted intervisibility could lead to vehicle to pedestrian collisions.

RECOMMENDATION

It is recommended that intervisibility splays should be suitable for approach speeds and that vegetation be cut back and periodically maintained to retain visibility.

3.4.2 PROBLEM

Location: Proposed pedestrian refuge on Balcombe Road.

Summary: Restricted visibility could lead to vehicle to pedestrian collisions.

No details relating to the pedestrian / traffic intervisibility splays at the crossing have been provided for assessment. There is concern that excess vegetation, particularly in the spring and summer months on the northeastern side of the carriageway may restrict intervisibility. Restricted intervisibility could lead to vehicle to pedestrian collisions.

RECOMMENDATION

It is recommended that the vegetation be cut back and periodically maintained to retain visibility.

3.4.3 **PROBLEM**

Location: At the cycle link.

Summary: Lack of cycle connectivity could compromise cycle safety.

Shared use cycleway facilities that start and end and do not appear to connect with other networks or have facilities to leave or rejoin the carriageway. This could lead to cyclists riding on the footways and possible cycle to pedestrian collisions.

RECOMMENDATION

It is recommended that cycle facilities should link or that facilities should be introduced to allow cyclists to leave and rejoin the carriageway.

3.5 **Road Signs, Carriageway Markings and Lighting**

3.5.1 **PROBLEM**

Location: Proposed pedestrian refuge on Balcombe Road.

Summary: Absence of high mounted 'Keep left' signs and illuminated bollards could lead to loss of control collisions.

The proposed pedestrian refuge does not have signage, where the refuge is on a semi-rural road. There is concern that vehicle spray and detritus may obscure the bollards and may lead to the island being inconspicuous, where a lack of conspicuity, particularly in conditions of poor visibility may cause kerb strikes and possible loss of control collisions.

RECOMMENDATION

It is recommended that 'Keep left' bollards should be installed and that high mast mounted signs to diagram 610 (Keep left) should also be installed, further that the signage aspect to diagram 610 should be illuminated.

3.5.2 **PROBLEM**

Location: Proposed roundabout.

Summary: Insufficient street lighting could increase the risk of side impact collisions or vehicle to pedestrian/cyclist collisions.

No details of street lighting have been provided for assessment. Insufficient street lighting may reduce the visibility of other vehicles or pedestrians/cyclists during the hours of darkness, particularly at the roundabout junction or crossing points. This could increase the risk of side impact collisions or vehicle to pedestrian/cyclist collisions.

RECOMMENDATION

It is recommended that the roundabout be lit and a plan showing the light distribution be provided for assessment.

4 ISSUES IDENTIFIED DURING THE STAGE 1 AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

- 4.1 Any issues that the Audit Team wish to bring to the attention of the Client Organisation, which are not covered by the road safety implications of this audit have been included in the following section. These issues could include maintenance items, operational issues or poor existing provision. It should be understood however, that in raising these issues, the Audit Team do not warrant that a full review of the existing highway environment has been undertaken beyond the scope of the audit.
- 4.2 The Audit Team has no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

5.1 We certify that this audit has been carried out following the principles of GG 119.

Audit Team Leader

Martin Morris
PGD, MCIHT, MSoRSA
National Highways Approved RSA Certificate of Competency

Signed:  Date: 17/03/2026

Audit Team Member

Alex Allen
AMIHE
RoSPA Cert. of Professional Competency

Signed:  Date: 17/03/2026

M & S Traffic

Aeolus House
32 Hamelin Road
Gillingham
Kent ME7 3EX



+44 (0) 1634 307 498



contact@mstraffic.co.uk



www.mstraffic.co.uk

APPENDIX A

List of drawings and documentation submitted for auditing:

Drawing Number

305 Site Access P6

310 Access Road Profile P4

311 Cross-sections P2

352 Roundabout Geometry P3

353 Swept Path Analysis 1 P3

354 Swept Path Analysis 2 P4

355 Swept Path Analysis 3 P3

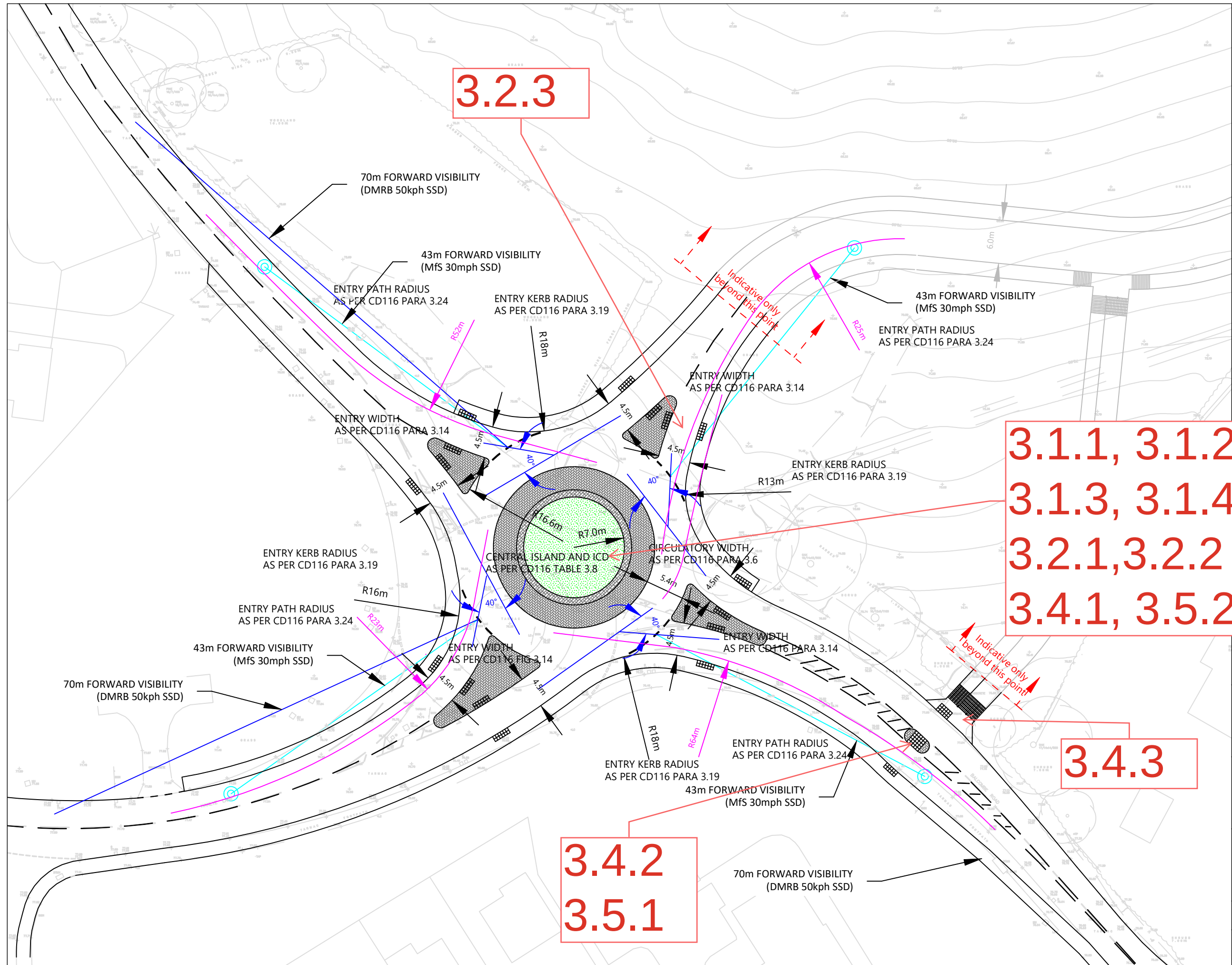
356 Swept Path Analysis 4 P2

Supporting Documentation:

- Covering emails SDP.

APPENDIX B

Plan attached showing the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).



- Notes
1. Do not scale from this drawing.
 2. Dimensions in metres unless noted otherwise.
 3. Central island R7m. Roundabout ICD 33.2m.
 4. Entry widths 4.5m.
 5. Maximum access road gradient 1:50 for 20m from the give way line.
 6. Road markings to comply with TSRGD Traffic Signs Regulations.
 7. Road signage, road markings and street lighting to be confirmed at detailed design stage.
 8. Provision of embankments / retaining structures to form part of detailed design of the access road.

26	Roundabout modified	NM
26	Updated and notes added	NM
25	First Issue	NM
24	Description	By
23	History	

Client

Project

Land north of Balcombe Road, Haywards Heath

Title

Roundabout Geometry

SDP

Bunton Barn, Bunton Lane
Bolney, West Sussex, RH17 5RE

Date	06.02.25	Scale	1:500	Drawn	NM
Drawing No.	SDP-XX-XX-DR-D-352	Revision	P3		

APPENDIX C: DESIGNERS RESPONSE

Auditors: Martin Morris (Team Leader) and Alex Allen (Team Member).

Scheme: Sugworth Farm

Date Audit Completed: 17th March 2026

This response is to a Stage 1 Road Safety Audit to the design standard detailed within GG 119 of Volume 5, Section 2, Part 2, of the Design Manual for Roads and Bridges, as detailed by Highways England.

RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA action
3.1.1: Inappropriate surfacing could lead to overshot collisions or rear end shunts. The proposals do not include the introduction of anti-skid surfacing or detail the Polished Stone Value (PSV) to be used on the approaches to the roundabout. Surfacing with an insufficient PSV could lead to overshoot or rear end shunt collisions. Further, vehicles approaching the roundabout may be straddling two different surface types and may experience differential braking, which under sudden severe braking conditions could lead to loss of control collisions.	It is recommended high friction surfacing or surfacing with a high PSV be provided on all the approaches to the roundabout.	Agreed. Details of PSV values and surfacing materials will be provided at Stage 2 Safety Audit.		
3.1.2: Surface water on carriageway could lead to loss of control collisions. Kerblines are proposed to be altered, where no details of the drainage proposal or carriageway profiles have been provided for assessment. Low or flat areas may cause ponding of surface water. This could be detrimental to road safety and could lead to loss of control accidents.	It is recommended drainage details and vertical profiles should be provided at Safety Audit Stage 2.	Agreed. Drainage details and profiles will be provided at Stage 2 Safety Audit.		
3.1.3: Inappropriate construction could increase the risk of loss of control collisions. It appears that a central overrun area around the centre island is proposed, where construction of the over-run area has not been provided for assessment. A low upstand could present a hazard, particularly to powered two-wheel riders. Additionally, previous experience has shown that due to impact loadings, these kerbs can work loose and stand higher than expected, which could lead to kerb strikes and loss of control collisions.	It is recommended that the over-run area have sufficient contrast and that details are provided for assessment.	Agreed. The overrun area is proposed to be a contrasting colour with white lining for demarcation rather than kerbs. Details will be finalised at the detailed design stage.		

RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA action
3.1.4: Lack of containment barrier could increase severity of a loss of control collision. There is a pronounced level difference from the access road and possibly the roundabout to the surrounding land and this may require the installation of a containment barrier. Lack of a suitable containment barrier could increase the severity of a loss of control collision.	It is recommended that a Road Restraints Risk Assessment Process (RRRAP) or similar assessment should be undertaken to determine the aggressiveness of the slope, and that suitable barriers should be installed as required, or that the height difference is altered, and that details are supplied for assessment.	Noted. A review of the requirement for a vehicle restraint system has been undertaken. Based on the gradients proposed and the corresponding critical slope heights, a vehicle restraint system is not considered necessary and could increase the severity of any impact. The introduction of a compact roundabout should reduce vehicle speeds at the junction and reduce the risk of vehicles leaving the carriageway. Any requirement for restraint systems will be reviewed at detailed design stage.		
3.2.1: Lack of forward visibility may increase the risk of junction related or shunt type collisions at the roundabout. Stopping Sight Distances have been provided for assessment, where there is concern that the forward visibility splays on approaches, could pass over non-highway land. Vegetation in these splays could restrict visibility, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.	It is recommended that the forward visibility splays should be within the adoptable highway, or that suitable covenants should be arranged to ensure that the splay is not obstructed by vegetation.	Agreed. The proposed layout has been designed such that visibility splays fall within the adoptable highway or land within the applicant's control. Where land is within the applicant's ownership it will either be offered for adoption or conditioned such that the visibility splay is not obstructed.		
3.2.2: Inappropriate construction could lead to loss of control collisions. No horizontal or vertical alignment details have been provided where the proposed roundabout is on a topographical area where there is a pronounced slope to the south. Whilst the Audit is not a design check CD 116 states: "Longitudinal gradients on the approach to a roundabout should not exceed 2% over a distance of at least 20 metres, measured from the give way or stop line." There is concern that excessive slopes on the vertical alignments could increase the risk of vehicle loss of control collisions.	It is recommended that the geometric parameters of the roundabout be fully compliant with DMRB and be supplied for assessment.	Noted. Drawing 310 shows the vertical alignment profile of the access road. This shows a gradient of 1 in 50 for the initial 20m from the give way line. Full level information will be provided as part of the detailed design.		

RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA action
3.2.3: Development approach to proposed roundabout. Stopping Sight Distances have been provided for assessment, where the object height at the roundabout is shown as 0.6m and this should be 0.26m, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.	It is recommended that the forward visibility splay should be to CD109.	Agreed. The vertical visibility profile is to object heights between 0.26m and 2.0m as per CD109.		
3.3.1: Insufficient capacity may lead to rear end shunts or side impact collisions. No modelling results were provided for assessment, where the existing two-lane approaches are being reduced to a single lane entry. Further, there is a crest on Balcombe Road and should and the forward visibility of a queue could be reduced. Excessive queuing at the roundabout could lead to driver frustration and the use of inappropriate gaps, which may lead to rear end shunts or side impact collisions.	It is recommended that the roundabout should operate without excessive queueing and that modelling results should be provided for assessment.	Agreed. The results from the TRL Junctions assessment predict maximum queue lengths of 1 vehicle on Hanlye Lane and Borde Hill Lane and 2 vehicles on Balcombe Road. Therefore, excessive queuing is not expected based on the junction modelling.		
3.4.1: Proposed pedestrian crossing points on Access Road and Balcombe Road at the roundabout. No details relating to the pedestrian / traffic intervisibility splays at the crossings have been provided for assessment. There is concern that excess vegetation, particularly in the spring and summer months on the Access Road and Balcombe Road arms of the roundabout may restrict intervisibility. Restricted intervisibility could lead to vehicle to pedestrian collisions.	It is recommended that intervisibility splays should be suitable for approach speeds and that vegetation be cut back and periodically maintained to retain visibility.	Agreed. Vegetation to be trimmed and cut back to maintain visibility.		
3.4.2: Restricted visibility could lead to vehicle to pedestrian collisions. No details relating to the pedestrian / traffic intervisibility splays at the crossing have been provided for assessment. There is concern that excess vegetation, particularly in the spring and summer months on the northeastern side of the carriageway may restrict intervisibility. Restricted intervisibility could lead to vehicle to pedestrian collisions.	It is recommended that the vegetation be cut back and periodically maintained to retain visibility.	Agreed. Vegetation to be trimmed and cut back to maintain visibility.		

RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA action
3.4.3: Lack of cycle connectivity could compromise cycle safety. Shared use cycleway facilities that start and end and do not appear to connect with other networks or have facilities to leave or rejoin the carriageway. This could lead to cyclists riding on the footways and possible cycle to pedestrian collisions.	It is recommended that cycle facilities should link or that facilities should be introduced to allow cyclists to leave and rejoin the carriageway.	Noted. Cyclists from the south turning right onto the shared facility are aided by the refuge island which allows them to wait for gaps in oncoming traffic. Signage and give way markings at the end of the cycle facility will clearly show the need for cyclists on the cycle lane to give way to traffic on Balcombe Road before joining. The connectivity of the pedestrian and cycle routes within the site will be further developed at detailed design stage.		
3.5.1: Proposed pedestrian refuge on Balcombe Road. The proposed pedestrian refuge does not have signage, where the refuge is on a semi-rural road. There is concern that vehicle spray and detritus may obscure the bollards and may lead to the island being inconspicuous, where a lack of conspicuity, particularly in conditions of poor visibility may cause kerb strikes and possible loss of control collisions.	It is recommended that 'Keep left' bollards should be installed and that high mast mounted signs to diagram 610 (Keep left) should also be installed, further that the signage aspect to diagram 610 should be illuminated.	Agreed. Details on signage and street furniture will be provided at Stage 2 Safety Audit.		

Appendix G: Vehicle Restraint System Technical Note

Technical Note – Vehicle Restraint System Risk Assessment
March 2026

This Technical Note provides information on the potential need for a Vehicle Restraint System adjacent to the proposed road layout due to the change in levels between the proposed access road and existing adjacent ground levels. Guidance on the provision of Road Restraint Systems on Local Authority Roads follows a risk assessment process rather than the more rigorous CD377 assessment which is used for routes with higher volumes and higher speeds of traffic.

The primary hazard is a vehicle departing from the road. The change in level between the proposed access road and the existing ground level will see embankments provided with a slope of 1 in 3, making it traversable and a more 'forgiving' overrun area than a steeper drop.

Risk is assessed by looking at a combination of Likelihood and Consequences and includes risk to vehicle occupants and to others. The probability of a vehicle leaving the road is based on road type, alignment and traffic flow. The probability of an errant vehicle reaching a hazard is based on location, topography and speed and type of vehicle. The effect on occupants if the vehicle reaches an object is based on speed and the aggressiveness of the hazard.

Traffic volumes on the access road will be low, reducing the probability of departures from the highway. Traffic speeds on the development access will be low due to the proximity to the roundabout and alignment of the access road, giving drivers more reaction time and reducing the severity of any impact. The presence of a 2m footway provides a clear offset zone from the road to the start of the embankment.

The Critical Slope Height is the vertical difference in height between the top and bottom of the embankment and varies depending on the slope gradient:

- 1:2 slope critical slope height: 2.3m
- 1:2.5 slope critical slope height: 3.4m
- 1:3 slope critical slope height: 6.0m

The slope heights from the top of the embankment to the existing ground levels along the access road are less than 6.0m, therefore the critical slope height is not reached for slopes of 1:3 gradient or gentler. The requirement for a fixed vehicle restraint system is therefore not considered to be met and is not considered to be beneficial, with the chance of increasing the severity of any collision by striking the fixed barrier rather than continuing to a gradual stop down a grass bank.

However, should containment of vehicles be considered necessary it is recommended that the detailed design of the access road consider the use of containment kerbs which are designed to protect verges and landscaped areas. These have a ramped 'toe' and a concave recess profile to help redirect drifting vehicles to their correct path and protect vulnerable pedestrian areas.

Adjacent to the proposed roundabout the proposed banking will tie in with the steeper existing embankments at the existing roundabout. The construction of the 'compact' single-lane entry roundabout is likely to see lower circulating speeds with fewer weaving manoeuvres and therefore the need for introducing restraint systems at the roundabout is not considered necessary, but it is recommended that this be revisited at the detailed design stage.

SDP

Buncton Barn
Buncton Lane
Bolney
West Sussex
RH17 5RE