



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

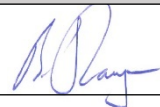
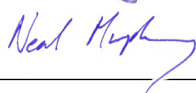
Report produced by: M & S Traffic

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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 by: (Name)	Checked by: (Name)	Approved by (Signature)	Date Approved
1	Martin Morris	Alex Allen		17 th March 2026
Designers Response	Neal Murphy	SDP		13 th April 2026
Authority Response				

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

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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).

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.

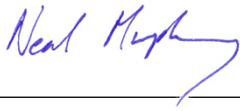
RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA action
3.1.1: Inappropriate surfacing could lead to overshot collisions or rear end shunts. The proposals do not include the introduction of anti-skid surfacing or detail the Polished Stone Value (PSV) 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 D: DESIGN ORGANISATION STATEMENT

PROJECT NAME: Sugworth Farm, Land north of Balcombe Road, Haywards Heath	
On behalf of the Design Organisation, I certify that:	
1) The actions identified in response to the problems raised in this RSA have been discussed and agreed with the Overseeing Organisation	
Name	Neal Murphy
Signed	
Position	Chartered Transport Planner
Organisation	SDP
Date	19th May 2026

APPENDIX E: OVERSEEING ORGANISATION STATEMENT

PROJECT NAME: Sugworth Farm, Land north of Balcombe Road, Haywards Heath	
On behalf of the Overseeing Organisation, I certify that: 1) The actions identified in response to the problems raised in this RSA have been discussed and agreed with the Design Organisation; and 2) The agreed RSA actions will be progressed	
Name	
Signed	
Position	
Organisation	
Date	