Road Safety Audit Report

Incorporating
Stage 1 Completion of Preliminary Design; and
Design Organisation Response to items raised.

Proposed Access off and Highway works along the B2102, Bird in Eye Hill in Uckfield

Client:
Bellamy Roberts

Client reference:
5330

Fenley
2 Blaenant
Emmer Green
READING
RG4 8PH

E: office@fenley.co.uk
www.fenley.co.uk

Report Status 2

Job no	**RSA-20-053**	**Issue no**	2	**Date**	August 2020
Prepared by	JJF	**Verified by**	FB	**Approved by**	JJF
Filename and Path	Fenley/Road Safety Audits/RSA-20/RSA-20-053-2				

1.0 PROJECT DETAILS

Report Title:	Stage 1 Road Safety Audit
Date:	August 2020
Document reference and revision:	RSA-20-053-2
Prepared by:	Fenley Road Safety Limited
On behalf of the Overseeing Organisation:	Wealden District Council
Design Organisation:	Bellamy Roberts
Project Sponsor:	Croudace Homes Ltd

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Stage 1 Road Safety Audit drafted for Audit Team discussions	FB			23rd July 2020
1	Stage 1 Road Safety Audit finalised and issued to the Design Organisation	JJF	FB	JJF	3rd August 2020
2	Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised	JJF			3rd August 2020
3	Design Organisation Response incorporated	Matt Twinberrow on behalf of Bellamy Roberts			4th August 2020

Contents:

1.0 Project Details 1

2.0 Introduction 2

3.0 Items Raised in any previous Road Safety Audits 3

4.0 Items Raised in this Stage 1 Road Safety Audit 4

A.1 Alignment

A.2 General

A.3 Junctions

A.4 Walking, Cycling and Horse Riding

A.5 Road Signs, Carriageway Markings and Lighting

5.0 Audit Team Statement 12

Appendices:

Stage 1 A1 Documents and Drawings provided for this Road Safety Audit

A2 Item Location Plan

A3 Drawings associated with the Design Organisation Response

2.0 INTRODUCTION

2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of proposed simple priority access off the derestricted B2102, Bird in Eye Hill in Uckfield, as well as an option to provide a splitter island just to the west of the proposed access. The works are to facilitate a residential development consisting of 300 dwellings on land to the south of Bird in Eye Hill, Uckfield. It is also proposed to extend the existing 30mph speed limit along Bird in Eye Hill to incorporate the proposed access, however the Audit Brief requests that the Audit be undertaken on the basis that the speed limit remains unchanged

2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.

2.3 The Road Safety Audit was undertaken during July 2020 in accordance with the Road Safety Audit Brief provided, on the 9th July 2020 by the Design Organisation, Bellamy Roberts, on behalf of the Project Sponsor, Croudace Homes. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided which are identified in **Appendix A1**. The Audit Team were satisfied that that the Audit Brief was sufficient for the purpose of the Audit instructed.

2.4 The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of GG119. The Audit Team consists of the following members:

Audit Team Leader
Jamie Fenning *BSc(Hons), MIHE, MCIHT, MSoRSA, Highways England RSA Certificate of Competency*
Road Safety / Highway Engineer

Audit Team Member
Farouk Bhatti *MCIHT*
Road Safety Auditor

2.5 The site visit associated with this Road Safety Audit was undertaken by the Audit Team Leader and Audit Team Member, during the early afternoon of Monday 20th July 2020 between 2:15pm and 3pm. The site visit involved walking and driving around the local highway network for a 45-minute period whilst observing local infrastructure and current off-peak traffic conditions. The weather during the site visit was clear with scattered clouds, the road surface was dry and visibility was good. One cyclists was observed during the site visit as well as a number of pedestrians accessing the Bird in Eye Surgery / Uckfield Hospital to the west of the proposed pedestrian access. Vehicular traffic to include cars, agricultural vehicles, light and heavy goods vehicles were also observed, no passenger service vehicles were observed although the B2102 is does form a bus corridor.

2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road

users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

Design Organisation Response

2.7 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.

2.8 The Design Organisation Response has been prepared by:

Name:	Matt Twinberrow
Position / Organisation:	Associate Partner, Bellamy Roberts

2.9 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix A3,** if applicable.

3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

3.1 Fenley Road Safety Limited have not been made aware of any previous road safety audits associated with the proposals.

4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

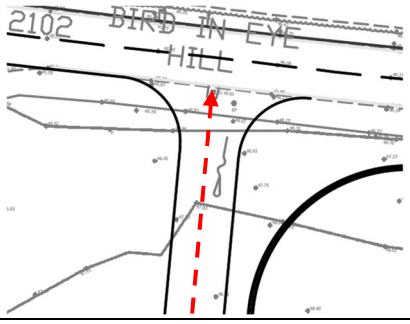
A.1	**LOCAL ALIGNMENT**
A.1.1	**PROBLEM**
Location:	Proposed access
Summary:	Vehicles may approach Bird in Eye Hill at inappropriate speeds
Acc Type:	Junction overshoot

The application site is currently set at a level above the adjacent Bird in Eye Hill with the existing access rising gradually away from the main carriageway. The proposals relocate the existing access to Bird in Eye Farm in order to serve a proposed development of 300 residential dwellings as well as two existing dwellings outside of the application site. The scheme drawings do not identify the gradient of the proposed carriageway at this stage, however, the land in proximity appears to be approximately 2 to 2.5 metres higher than the level of the existing carriageway. A gradient in excess of 1 in 20 on approach to a simple priority access could lead to junction overshoot type incidents.

RECOMMENDATION:

It is recommended that the access road is set at a gradient shallower than 1 in 20 on approach to the B2102.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

The proposed access will be designed with 1 in 20 or slacker gradient than in accordance with standards with the land either side, graded up away from the carriageway at an appropriate gradient.

A.2	**GENERAL**
A.2.1	**PROBLEM**
Location:	Bird in Eye Hill
Summary:	Drivers approaching the proposed traffic island may not become aware of the feature at a safe distance
Acc Type:	Vehicle loss of control

In proximity of the proposed access, Bird in Eye Hill is derestricted, subject to the 60 mph national speed limit and accommodates a number of bends in proximity of the proposed access. The

proposals that are subject to this Stage 1 Road Safety Audit includes two options; one to extend the existing 30mph zone to a point just east of the proposed access and another where the derestricted nature of the road remains unchanged but a splitter island is to be installed just to the west of the proposed access to ensure that eastbound vehicles approaching the proposed access, do not encroach the opposing lane and thus ensure the achievable visibility accords observed speeds. The scheme drawing illustrates that illuminated keep left bollards are to be provided which should highlight the features to approaching drivers, however, due to the existing alignment of Bird in Eye Hill to the west as well as vegetation abutting the carriageway, forward visibility for eastbound drivers is limited. As such, there may be insufficient warning of the traffic island which could lead to vehicles striking the feature and a loss of control type incidents.

RECOMMENDATION:

It is recommended that sufficient forward visibility is achievable to an object within the carriageway

Location Plan:

DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

The Highway Authority are supportive of the extension to the 30mph speed limit and as set out in MfS2, the starting point for visibility on non-trunk roads is MfS. It is clear that Bird in Eye Hill is not a trunk road and sufficient forward visibility is achievable.

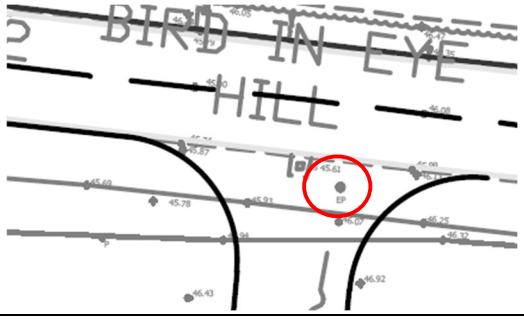
A.2.2	**PROBLEM**
Location:	Proposed access
Summary:	Existing Telegraph / Electric pole will become an obstruction to vehicles
Acc Type:	Vehicle-street furniture strikes

Signage and telegraph poles are situated within the existing verge along Bird in Eye Hill. The proposals relocate an existing access approximately 30 metres to the east which is to serve the existing dwellings as well as the proposed development of 300 dwellings. However, a telegraph / electric pole is situated in the proposed bell mouth access in the path of vehicles and will be an obstruction.

RECOMMENDATION:

It is recommended that the telegraph / electric pole is relocated, and the access is free of obstructions.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

All existing street furniture, utility covers and gullies will be reviewed during the detail design of the scheme.

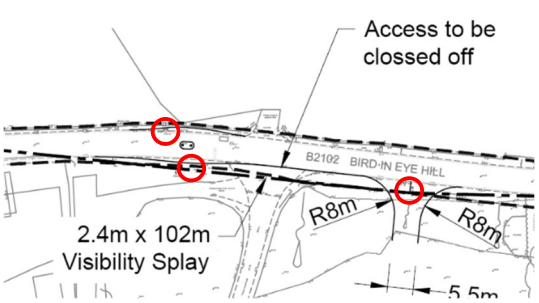
A.2.3	**PROBLEM**
Location:	Proposed Access and Bird in Eye Hill
Summary:	Existing road gully will be within the path of vehicles
Acc Type:	Loss of control

Bird in Eye Hill is cambered with surface water falling to the channels either side of the carriageway where road gullies are present. During the site visit associated with this Audit, a number of gullies in proximity to the proposed works were observed to be blocked and therefore ineffective. The proposals that introduce a traffic island to the west of the proposed access, widen the Bird in Eye Hill carriageway where a gully is present either side of the road. No details of the proposed surface water drainage have been provided at this stage; however, an insufficient network is likely to result in ponding during inclement conditions which increases the likelihood of loss of control type incidents. Furthermore, a road gully within the path of a vehicle could give rise to loss of control type incidents particularly for two wheeled vehicles and vehicles undertaking a braking manoeuvre.

RECOMMENDATION:

It is recommended that an adequate surface water drainage network is provided.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

All existing street furniture, utility covers and gullies will be reviewed during the detail design of the scheme.

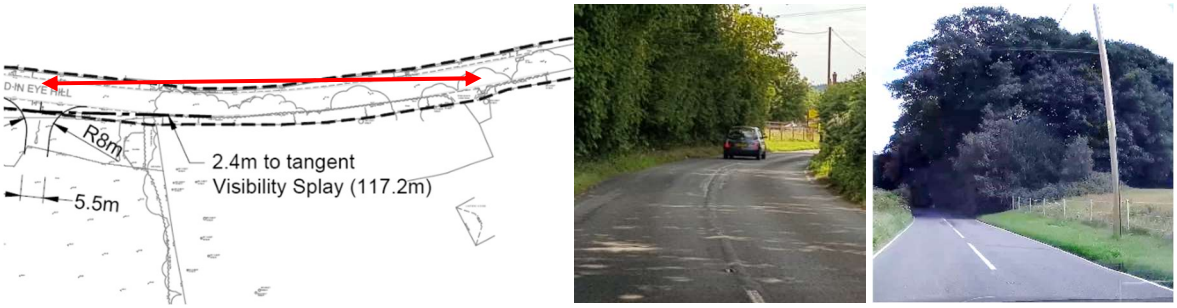
A.3	**JUNCTIONS**
A.3.1	**PROBLEM**
Location:	Bird in Eye Hill
Summary:	Drivers approaching and waiting to turn right into the proposed access may not become aware of each other at a safe distance
Acc Type:	Vehicle side and rear impact collision

In proximity of the proposed access, Bird in Eye Hill is derestricted, subject to the 60 mph national speed limit and accommodates a bend on each approach. The proposals that are subject to this Stage 1 Road Safety Audit includes two options; one to extend the existing 30mph zone to a point just east of the proposed access and another where the derestricted nature of the road remains unchanged but a splitter island is to be installed just to the west of the proposed access to ensure that eastbound vehicles approaching the proposed access, do not encroach the opposing lane and thus ensure the achievable visibility accords with the splays illustrated. The Audit Team took measurements whilst on-site and visibility splays of 2.4x117.2 metres and 2.4x102 metres are achievable from the proposed access to an approaching vehicle, however, due to vegetation within the verge to the north of the carriageway, forward visibility to and from a vehicle attempting to turn right into the access, is restricted to below 117.2 metres for westbound drivers. As such, a westbound driver will have insufficient warning of the traffic attempting to turn right and vice versa.

RECOMMENDATION:

It is recommended that the sufficient forward visibility is achievable

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

As stated by the Auditor's, the proposed access is clearly visible for westbound drivers and as such, one would approach cautiously in the knowledge that a vehicle may attempt to turn right. It must be noted that a right turning vehicle will be moving across the carriageway and not be a stationary object. The Highway Authority are supportive of the extension to the 30mph speed limit and in any event, MfS2 advises that the starting point for calculating visibility for non-trunk roads

should be MfS. It is evident that sufficient visibility is therefore achievable to/from the proposed access.

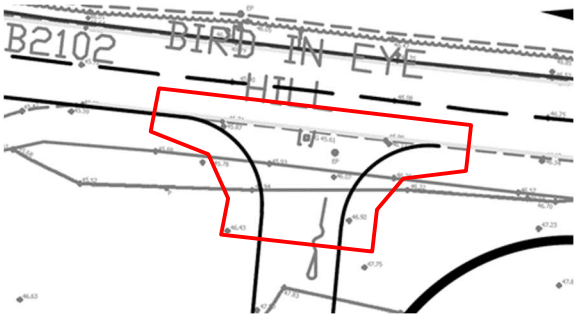
A.3.2	**PROBLEM**
Location:	Proposed access
Summary:	No road markings are provided to highlight the need for exiting vehicles to give-way
Acc Type:	Junction overshoot

The existing access arrangement serving a mixed-use development on land at Bird in Eye Farm does not accommodate any road markings. The proposals subject to this Stage 1 Road Safety Audit are to provide a priority access that serves a development of 300 dwellings. The scheme drawings provided with the Audit Brief provided do not identify that any carriageway markings are to be provided at its junction with Bird in Eye Hill. Vehicles exiting may not therefore align themselves sufficiently to allow space for a vehicle to enter simultaneously which could give rise to sideswipes type incidents as well as rear end shunts along Bird in Eye Hill and junction overshoot type incidents.

RECOMMENDATION:

It is recommended that road markings are provided to guide vehicles sufficiently.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

Give-way and road centreline markings are to be provided.

A.3.3	**PROBLEM**
Location:	Proposed access arrangement
Summary:	Insufficient space may be provided to allow service vehicles to enter
Acc Type:	Rear-end and sideswipes

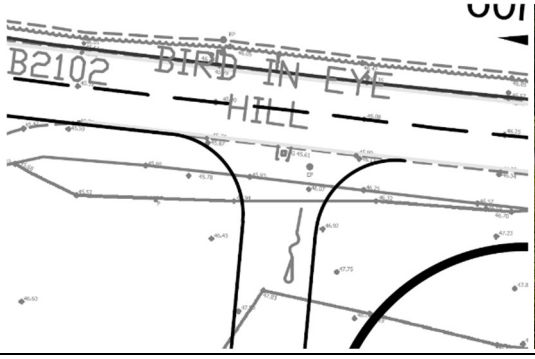
The existing access to Bird in Eye Farm is approximately 5 metres wide with large corner radii that allow for Heavy Goods and Agricultural Vehicles to manoeuvre safely. The proposals include the relocation of the priority access with 8 metre corner radii which provides access to a 5.5m wide carriageway. No swept path analysis has been provided with the Audit Brief and as such, the corner radii may not be sufficient to allow for the infrequent HGV movements that could be expected from a development of 300 dwellings. Should turning movements be restrictive, vehicles could be required to encroach the opposing lane or vehicles may be required to reverse out of the

proposed access or in order to enter and exit the access raising the risk of rear-end, sideswipe collisions.

RECOMMENDATION:

It is recommended that the proposals allow for all expected movements.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

A swept path analysis has been undertaken and the proposals are adequate for the expected vehicles.

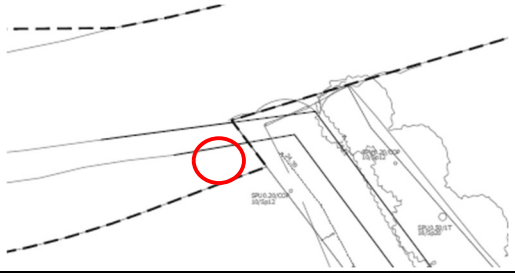
A.4	**WALKING CYCLING AND HORSE RIDING**
A.4.1	**PROBLEM**
Location:	Proposed footpath connection, Bird in Eye Hill
Summary:	Existing signage will become an obstruction to pedestrians
Acc Type:	Pedestrian collision with street furniture

In proximity of the proposed footway cycleway access he verges of Bird in Eye Hill accommodates a number of telegraph / electric poles and road signs. The proposals introduce a connection between Bird in Eye Hill and the local pedestrian network, to the west of the proposed access via footpath through a wooded area. An existing telegraph / electric pole is situated just to the west of the proposed connection will be situated central to the footway and become an obstruction to pedestrians that could force one to enter the carriageway suddenly raising the risk of vehicle collisions with pedestrians.

RECOMMENDATION:

It is recommended that the telegraph pole is relocated.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

All existing street furniture, utility covers and gullies will be reviewed during the detail design of the scheme.

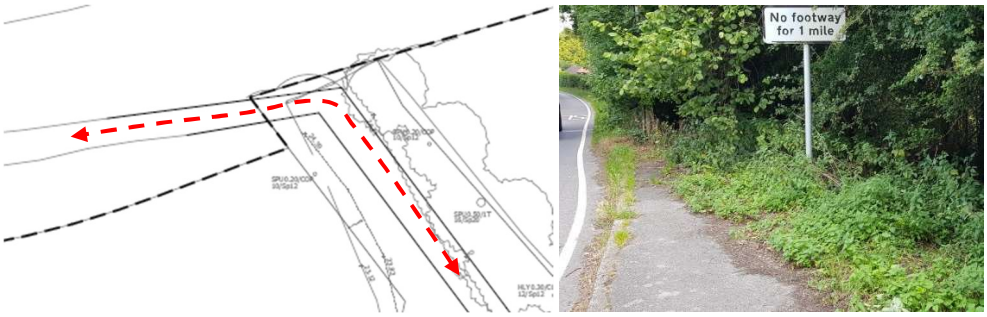
A.4.2	**PROBLEM**
Location:	Proposed footpath connection, Bird in Eye Hill
Summary:	Cyclists are likely to utilise the proposed footpath
Acc Type:	Cyclist and pedestrian collisions

Bird in Eye Hill benefits from a footway along the southern side that terminates just to west of the gated access to the application site. The scheme drawing provided with the Audit Brief illustrates that a footpath connection is proposed at this location which is approximately the same width as the existing footway, however, as identified within the Transport Assessment associated with the scheme, a 3.0-metre wide shared use footway / cycleway link is to be provided. The proposed link is considerably shorter than following Bird in Eye Hill and as such, it is highly likely that cyclists will utilise the link. Should the link be insufficient to accommodate a high number of pedestrians and cyclists, there could give rise to cyclist-pedestrian collisions.

RECOMMENDATION:

It is recommended that the width of the facility is increased appropriately to accommodate cyclists

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

The section of footway between the pedestrian/cycle access and the bus stops to the west will be widened to 3m to facilitate its use as a shared footway/cycleway.

A.5	**ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING**
A.5.1	**PROBLEM**
Location:	Proposed footpath connection, Bird in Eye Hill
Summary:	Existing road sign could become an obstruction to users of the footway
Acc Type:	Pedestrian collision with street furniture

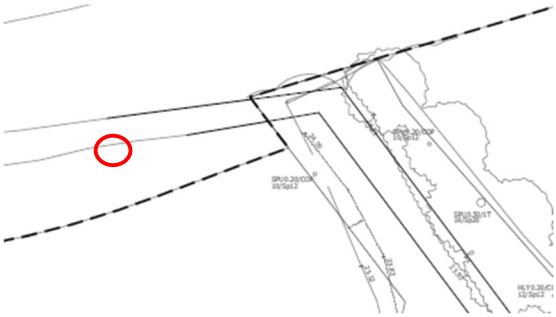
Bird in Eye Hill benefits from a footway along the southern side that terminates just to west of the gated access to the application site at a location where a 'pedestrians in carriageway' road sign with a 'no footway for 1 mile' plate is present. The sign face appears to provide insufficient

headroom for a pedestrian to walk beneath. Should a pedestrian step slightly off the existing footway, the sign would be an obstruction resulting in a personal head injury.

RECOMMENDATION:

It is recommended that the sign face is relocated further back from the edge of footway or raised to a suitable level

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Bellamy Roberts on the 4th August '20 following formal issue of this Stage 1 Road Safety Audit on the 3rd August '20

All existing street furniture, utility covers and gullies will be reviewed during the detail design of the scheme.

5.0 STAGE 1 ROAD SAFETY AUDIT TEAM STATEMENT

5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

Audit Team Leader

Name: **Jamie Fenning** *BSc (Hons), MIHE, MCIHT, MSoRSA, HE RSA Certificate of Competency*

Signed:

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 3rd August 2020

Audit Team Member

Name: **Farouk Bhatti** *MCIHT*

Signed:

Position: Road Safety Engineer
Organisation: Fenley Road Safety Limited
Date: 3rd August 2020

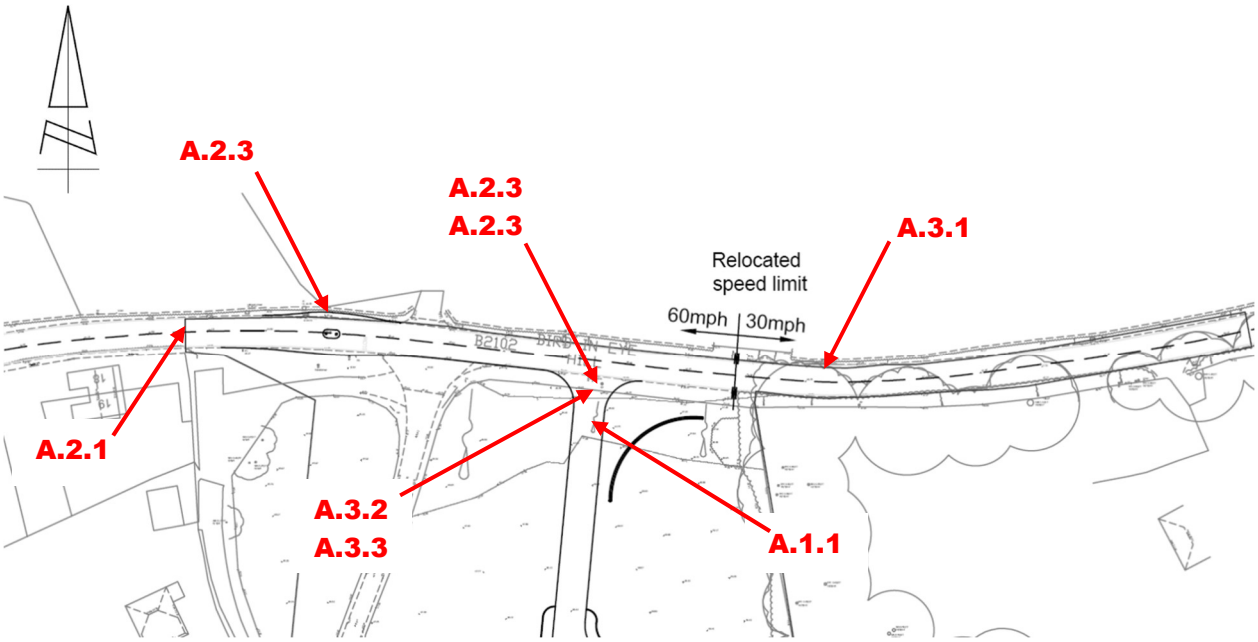
Appendix A1

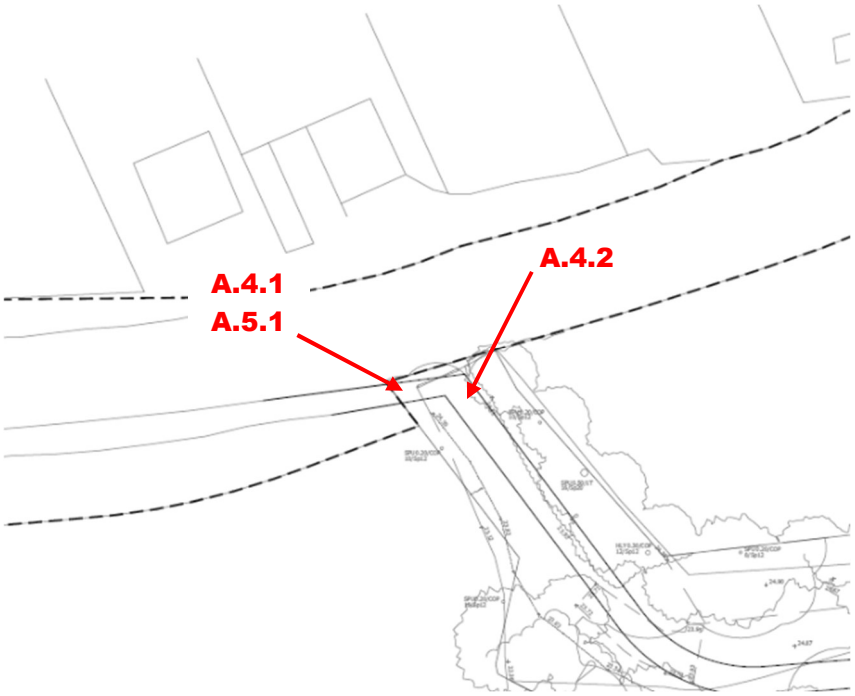
Documents and Drawings provided for this Stage 1 Road Safety Audit

Audit Stage	Doc. No.	Rev	Title
Stage 1	ITRMT/5330/TA.1	-	Transport Assessment
	Dwg No.	Rev	Title
	5330-01	D	Visibility Requirements
	5330-07	-	Proposed Footpath Connection
	5330-08	-	Proposed Speed Limit Relocation

Appendix A2

Item Location Plan


A.2.3
A.2.3
A.2.3
A.3.1
Relocated
speed limit
60mph
30mph
B2102
A.2.1
A.3.2
A.3.3
A.1.1


A.4.1
A.5.1
A.4.2

Appendix A3

Drawings associated with the Design Organisation Response

Audit Stage	Drawing No.	Rev	Title
Stage 1			

fenley