

LAND EAST OF TYE LANE,

WALBERTON

DESIGNERS RESPONSE – STAGE 1 ROAD SAFETY AUDIT

REPORT REF NO. 183248-03

PROJECT NO. 183248

MARCH 2021

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A. Stage 1 Road Safety Audit

Document Control Sheet

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Draft for WSCC Approval	MRH	KM	DRAFT	26/02/2021
-	Draft for WSCC RSA Team approval	DH	KM	DRAFT	18/03/2021
-	Final for WSCC RSA Team approval	DH	DH	KM	19/03/2021

Distribution

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1.0 INTRODUCTION

- 1.1 Ardent Consulting Engineers (ACE) has been appointed by Vistry Group PLC to advise on the transport aspects of the proposed development of land to the east of Tye Lane, Walberton. The proposals comprise 205 dwellings (C3 use).
- 1.2 This report addresses matters originally raised in the Stage 1 Road Safety Audit (RSA) undertaken by Lawrence Shaw Associates (LSA), dated 9th December 2020.
- 1.3 The Audit was undertaken on the preliminary site access design to serve residential development and comprises a simple priority junction with footway widening works.
- 1.4 The following drawings have been prepared to incorporate the findings of the RSA1:
 - **ACE Drawing 2005090-183248-002C** – Proposed Site Access Arrangements.

2.0 DESIGNERS RESPONSE TO STAGE 1 ROAD SAFETY AUDIT

Table 2.1 Project Details

Report title:	Stage 1 Designers Response
Date:	March 2021
Document reference and revision:	183248-03
Prepared by:	Ardent Consulting Engineers
On behalf of:	Vistry Group PLC

Table 2.2 Authorisation Sheet

Project:	Tye Lane, Walberton
Report title:	Designers Response to Stage 1 Road Safety Audit
Prepared by	
Name:	David Howson
Position:	Principal Engineer
Signed:	
Organisation:	Ardent Consulting Engineers
Date:	11.03.2021
Approved by	
Name:	Kevin Markey
Position:	Associate
Signed:	
Organisation:	Ardent Consulting Engineers
Date:	11.03.2021

Table 2.3 Key Personnel

Overseeing Organisation:	Mr S Gee
RSA team:	Mr L. Shaw & Mr G Holland
Design organisation:	Miss K. Iwanowska, Mr D. Vallance & Mr K. Markey

Table 2.4 Road Safety Audit Decision Log

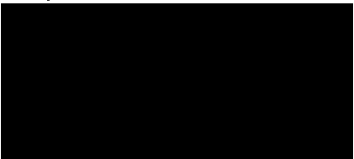
RSA problem	RSA recommendation	Design organisation response	Overseeing Organisation response	Agreed RSA action
Poor visibility may lead to accidents	It is recommended that the visibility splay is increased sufficiently to allow all southbound vehicles to see the proposed access at the speed limit.	We do not agree with the Auditor comments. To confirm visibility splays incorporated into the preliminary design were based upon the findings of traffic surveys adopting 85th percentile speeds as appropriate. This is clarified within Note 1 of the drawing and is also shown on the revised and updated access design in ACE Drawing 183248-002C. It should be noted, and is clarified on ACE Drawing 183248-002C, that use of the access junction with Tye Lane would only come into effect should the A27 Bypass proposals be implemented. In the scenario where the Bypass is implemented the northern end of Tye Lane would be stopped up and hence vehicle traffic flows would be substantially reduced from those measured by the survey. Given the visibility splays extend to the requirements of measured speeds, and that the northern end of Tye Lane will be closed in the future, the visibility splays as shown demonstrate safe egress is possible.	Visibility splays are to be provided in line with the existing recorded 85th % speeds. The approach was acceptable to WSCC in relation to the emergency access that forms part of the original application on the site. The access (to allow all vehicles) would also only be implemented should the A27 Arundel bypass be constructed and Tye Lane stopped up to the north of the site access.	Visibility splays will be provided in accordance with recorded 85 th % speeds.

Inadequate footway width may lead to accidents	It is recommended that the width of the footway is increased to a minimum of 1.5m throughout its length.	We do not agree with the Auditor comments. Inclusive Mobility (DfT, 2005) allows a minimum footway width of 1m in certain areas that suffer from constrained space. Nevertheless, ACE Drawing 183248-002C, incorporates further footway widening to provide a minimum 1.2m width along the narrowest section, also providing a wider footway for a longer stretch of the route too. It should be further noted that there is a further pedestrian access point available to prospective occupiers that links to an existing Public Right of Way. The alternative pedestrian connection is provided by way of a pedestrian/cycle access that can also serve as a point of access in an emergency, and can be seen in Viewport 4 of ACE Drawing 183248-002C. Further, the access point and use of the proposed widened footway would only come into use should the Bypass be implemented and hence the northern end of Tye Lane closed. This would result in a significant reduction in vehicle traffic along Tye Lane and the likelihood that a pedestrian pushing a pram met not only another pedestrian but also a vehicle travelling along Tye Lane all at the same time would be negligible. In light of this the proposed widened footway is considered to safely accommodate the likely pedestrian footfall in the context of anticipated vehicle traffic, and will be supplemented by an alternative pedestrian connection, is suitable to serve the needs of the development.	It is acknowledged that the footway to be provided is below 1.5m for approximately 50m, with approximately 25m being 1.2m. The footway would also only be implemented should the A27 Arundel bypass be constructed and Tye Lane stopped up to the north of the site access which would reduce the number of vehicle trips along Tye Lane. Alternative pedestrian and cycle access to the site within the current planning consent already provides a route onto Avisford Park Road and a link onto the Walberton playing fields enabling access to the primary school.	Footways as proposed on ACE Drawing 183248-002C will be provided should the access design be implemented as a result of the Bypass of the A27.
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Table 2.6 Design Organisation Statement

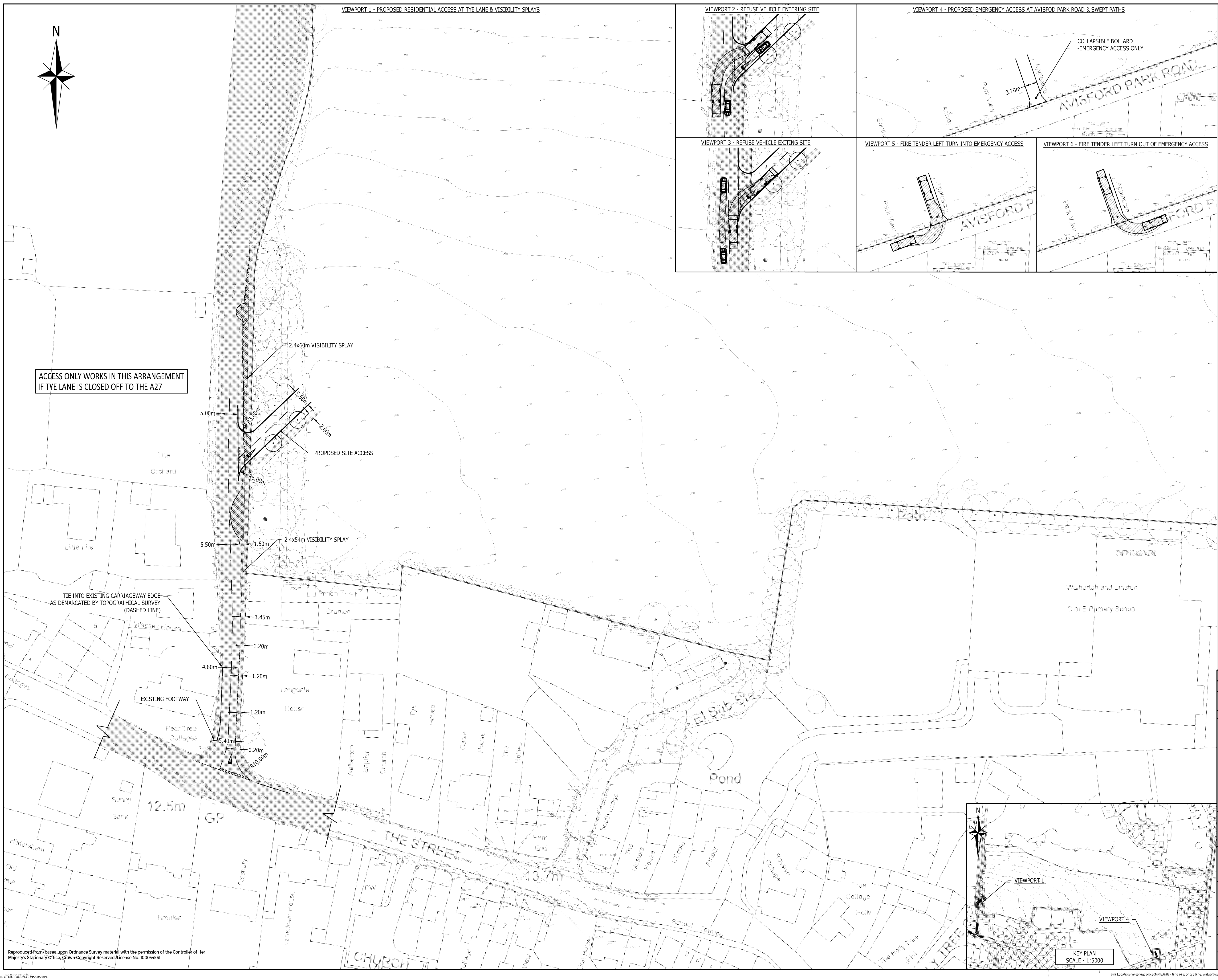
On behalf of the design organisation I certify that:	
1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.	
Name:	Kevin Markey
Signed	
Position:	Associate
Organisation:	Ardent Consulting Engineers
Date:	11.03.2021

Table 2.6 Overseeing Organisation Statement

On behalf of the Overseeing Organisation I certify that: 1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and 2) the agreed RSA actions will be progressed.	
Name:	Stephen Gee
Signed:	
Position:	Principal Planner County Highways
Organisation:	West Sussex County Council
Date:	19/3/2021

Designers Response

Drawings



N

VIEWPORT 1 - PROPOSED RESIDENTIAL ACCESS AT TYE LANE & VISIBILITY SPLAYS

VIEWPORT 2 - REFUSE VEHICLE ENTERING SITE

VIEWPORT 3 - REFUSE VEHICLE EXITING SITE

VIEWPORT 4 - PROPOSED EMERGENCY ACCESS AT AVISFORD PARK ROAD & SWEEP PATHS

VIEWPORT 5 - FIRE TENDER LEFT TURN INTO EMERGENCY ACCESS

VIEWPORT 6 - FIRE TENDER LEFT TURN OUT OF EMERGENCY ACCESS

ACCESS ONLY WORKS IN THIS ARRANGEMENT IF TYE LANE IS CLOSED OFF TO THE A27

2.4x60m VISIBILITY SPY

PROPOSED SITE ACCESS

2.4x54m VISIBILITY SPY

TIE INTO EXISTING CARRIAGEWAY EDGE AS DEMARCATED BY TOPOGRAPHICAL SURVEY (DASHED LINE)

EXISTING FOOTWAY

Pear Tree Cottages

Sunny Bank

Hidderham

Cusshury

Lansdown House

GP

12.5m

13.7m

THE STREET

CHURCH

Walterton Baptist Church

Gable House

The Hollies

Pond

El Sub Sta

Walberton and Binsted C of E Primary School

Path

Avisford Park Road

KEY PLAN SCALE - 1:5000

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DISTRICT COUNCIL W/032951

File Location \\shared\projects\183245 - lane east of tye lane.wpd

N

VIEWPORT 1 - PROPOSED RESIDENTIAL ACCESS AT TYE LANE & VISIBILITY SPLAYS

VIEWPORT 2 - REFUSE VEHICLE ENTERING SITE

VIEWPORT 3 - REFUSE VEHICLE EXITING SITE

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VIEWPORT 6 - FIRE TENDER LEFT TURN OUT OF EMERGENCY ACCESS

ACCESS ONLY WORKS IN THIS ARRANGEMENT IF TYE LANE IS CLOSED OFF TO THE A27

2.4x60m VISIBILITY SPYLY

5.00m

PROPOSED SITE ACCESS

2.4x54m VISIBILITY SPYLY

5.50m

1.50m

1.45m

1.20m

1.20m

1.20m

EXISTING FOOTWAY

Pear Tree Cottages

GP

12.5m

THE STREET

13.7m

CHURCH

Wessex House

The Orchard

Little Firs

Cranlea

Langdale House

Tye House

Gable House

The Hollies

Pond

El Sub Sta

Sunny Bank

Hidarsham

Old Gate

Bronlea

Lansdown House

Walberton Baptist Church

The Masters House

L'ecola

Ambler

Roselyn Cottage

Tree Cottage

Holly

The Holy Tree

Path

Walberton and Binsted C of E Primary School

KEY PLAN SCALE - 1:5000

VIEWPORT 1

VIEWPORT 4

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DISTRICT COUNCIL W/032951

File Location \\shared\projects\183245 - lane east of tye lane.wpd

VIEWPORT 1 - PROPOSED RESIDENTIAL ACCESS AT TYE LANE & VISIBILITY SPLAYS

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ACCESS ONLY WORKS IN THIS ARRANGEMENT IF TYE LANE IS CLOSED OFF TO THE A27

2.4x60m VISIBILITY SPYLY

5.00m

PROPOSED SITE ACCESS

2.4x54m VISIBILITY SPYLY

5.50m

1.50m

1.45m

1.20m

1.20m

1.20m

EXISTING FOOTWAY

Pear Tree Cottages

GP

12.5m

THE STREET

13.7m

CHURCH

Wessex House

The Orchard

Little Firs

Cranlea

Langdale House

Tye House

Gable House

The Hollies

Pond

El Sub Sta

Sunny Bank

Hidarsham

Old Gate

Bronlea

Lansdown House

Walberton Baptist Church

The Masters House

L'ecola

Ambler

Roslyn Cottage

Tree Cottage

Holly

The Holy Tree

KEY PLAN SCALE - 1:5000

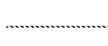
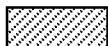
VIEWPORT 1

VIEWPORT 4

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DISTRICT COUNCIL W/032951

File Location: y:\hardened projects\183245 - lane east of tye lane, walberton

KEY:	
	SITE BOUNDARY
	VISIBILITY SPLAYS FOR MEASURED SPEEDS (SEE NOTE 1)
	VISIBILITY SPLAYS FOR 30mph SPEED LIMIT ON TYE LANE
	VEGETATION TO BE REMOVED FROM VISIBILITY
	PROPOSED FOOTWAY
	INDICATIVE HIGHWAY BOUNDARY
	TACTILE PAVING

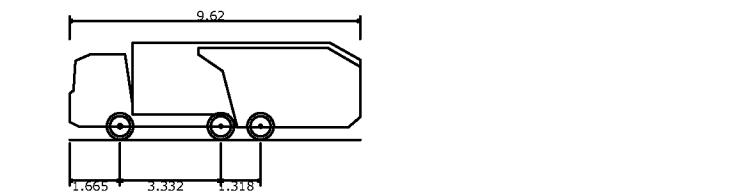
NOTES:

1. JUNCTION VISIBILITY PLAYS BASED ON SPEED SURVEYS UNDERTAKEN ON 08/01/19 RECORDING 85TH PERCENTILE SPEEDS OF 36.4MPH NORTHBOUND AND 38.9MPH SOUTHBOUND AND M51 PARAMETERS (1.5secs DRIVER REACTION TIME, 0.45g DECELERATION RATE, SINCE PROPORTION OF HGVS/BUSES <5%)
2. BASED ON TOPOGRAPHICAL SURVEY PREPARED BY K.A.RYLANDCE LIMITED FOR VISTRY HOMES LIMITED, NOVEMBER 2020.
3. HIGHWAY BOUNDARY INFORMATION BASED UPON 2020 ORDNANCE SURVEY MAPPING RECEIVED FROM WSCC ON 24/11/2020.

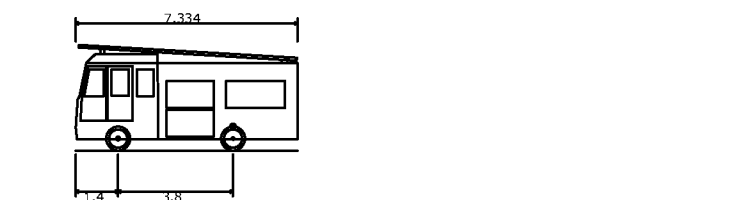
VEHICLES USED:



Car	
Overall Length	4.572m
Overall Width	1.769m
Overall Body Height	1.488m
Min Body Ground Clearance	0.249m
Max Track Width	1.713m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.100m



Phoenix 2-18W (with Elite 2 6x2RS chassis)	
Overall Length	9.620m
Overall Width	2.530m
Overall Body Height	2.211m
Min Body Ground Clearance	0.416m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.800m



Fire Tender	
Overall Length	7.334m
Overall Width	3.286m
Overall Body Height	3.495m
Min Body Ground Clearance	0.380m
Track Width	2.286m
Lock to lock time	5.00s
Kerb to Kerb Turning Radius	8.000m

FOR INFORMATION
ONLY

C	EDGE OF CARRIAGEWAY MARKING ADDED	DV	DV	KM	15.03.21
B	ACCESS UPDATED	DV	DV	KM	26.01.21
A	EMERGENCY ACCESS TRACKS ADDED / FOOTWAY WIDENED TO A MIN. 1.2m / CARRIAGEWAY NARROWED FOLLOWING WSCC COMMENTS	DV	DV	KM	07.01.21
Rev	Description	Drn	Chk	App	Date

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Client

VISTRY SOUTH EAST

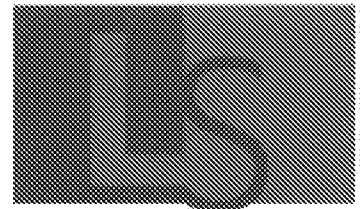
Project Title:

LAND EAST OF TYE LANE, WALBERTON

Drawing Title:
**PROPOSED ACCESS IMPROVEMENTS
- TYE LANE/AVISFORD PARK ROAD**

AI Scale 1:500	Date 20.11.2020	Designed by KI
Drawn by KI	Checked by KI	Approved by KM
Drawing Number 183248-002		Rev C

Designers Response Appendix A
Stage 1 Road Safety Audit



Laurence Shaw
ASSOCIATES

Traffic Engineering Consultants

Downsview
Poynings Road
Poynings
West Sussex BN45 7AH



ARDENT CONSULTING ENGINEERS

PROPOSED ACCESS ARRANGEMENTS
LAND EAST OF TYE LANE, WALBERTON

ROAD SAFETY AUDIT STAGE 1
DECEMBER 2020

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Appendix

- A. Schedule of Documents Examined
- B. Annotated Drawings

1.0 INTRODUCTION

- 1.1** This report presents the findings of a Stage 1 Road Safety Audit (preliminary design) into a new access arrangements for a development at land east of Tye Lane, Walberton.
- 1.2** This Audit was carried out at the request of Mr Mat Haywood of Ardent Consulting Engineers and the Audit Team has acted independently of the Design Team. LSA have had no prior involvement in the project.
- 1.3** This Audit comprised a site visit and an examination of the documents listed in Appendix A. The site visit was carried out on Tuesday 8th December 2020 in daylight. The visit occurred between the hours of 10:30 – 11:00 and during the visit the weather was dry with good visibility. Record photographs were taken.
- 1.4** The Audit Team membership was as follows:

Laurence Shaw MCIHT MSoRSA Cert Comp	Team Leader
G Holland FIHE, FSoRSA, Cert Comp, AMRSGB, RegRSA[IHE]	Team Member

- 1.5** The terms of reference of this Audit are described in the Design Manual for Roads and Bridges Volume 5, Section 2, Part 2 GG119. The audit team has only reported on the road safety implications of the existing and proposed facilities and has not examined or verified the compliance of the design or any other criteria.
- 1.6** The works to be included in the audit are a new 5.5m access road with a 1.5m footway on the south side of the road and 7.0m radii accessed from Tye Lane.
- 1.7** At the location of the Tye Lane access the speed limit is 30mph, the limit changes to NSL of 60mph approximately 10m north of the proposed access and the road does not have a system of street lighting.
- 1.8** This is a Stage 1 Road Safety Audit and it has been noted that details of drainage, landscaping, street lighting, bollards and signing, etc. are not included

in the information provided to the Audit Team and that any such information will be provided to the Audit Team at Stage 2 RSA unless a problem is noted as a result of the site inspection.

- 1.9** All comments and recommendations are referenced to the design drawings and the locations have been indicated on the plans supplied with the Audit Brief, annotated copies of which are attached to this report.
- 1.10** No departures from standard have been advised to the Auditor by the design team.
- 1.11** This Road Safety Audit has been prepared in accordance with the instructions from, and for the specific use of Ardent Consulting Engineers and its clients. The authors shall not be liable for the information contained in this report if used for any purpose other than that for which it was provided in connection with their appointment as road safety auditors.

2.0 STAGE 1 ROAD SAFETY AUDIT

2.1 Problem

Location: North of the proposed access.

Summary: Poor visibility may lead to accidents.

The Audit Team noted that the proposed visibility splay to the north of the access is 2.4m x 60.0m and the speed limit changes approximately 10m north of the proposed access to the NSL of 60mph. The Audit Team have assumed that the visibility splay is based on a speed survey but there are concerns that traffic speeds for traffic travelling south may be higher at times. If traffic speeds increase the likelihood of collisions at the proposed access may increase.

Recommendation

It is recommended that the visibility splay is increased sufficiently to allow all southbound vehicles to see the proposed access while travelling at the speed limit.

2.2 Problem

Location: South of the proposed access.

Summary: Inadequate footway width may lead to accidents.

The Audit Team noted that the width of the proposed footway between the proposed access and the existing footway at The Street varies throughout its length and part of it is only 1.0m in width. A footway of 1.0m width is not wide enough to allow a pedestrian pushing a pram to pass another pedestrian without causing them to walk in the carriageway which could lead to vehicle/pedestrian conflicts.

Recommendation

It is recommended that the width of the footway is increased to a minimum of 1.5m throughout its length.

3.0 AUDIT TEAM STATEMENT

ROAD SAFETY AUDIT STAGE 1

We certify that this road safety audit has been carried out in accordance with GG119 of Volume 5, Section 2, Part 2, of the Design Manual for Roads and Bridges.

Audit Team Leader

L. E. Shaw MCIHT MSoRSA
Senior Associate
Laurence Shaw Associates
Downsview
Poynings Road
Poynings
West Sussex
BN45 7AH

Signed



Date 9th December 2020

Audit Team Member

G Holland FIHE, FSoRSA, Cert Comp,
AMRSGB, RegRSA[IHE]

Signed



Date 9th December 2020

APPENDIX A

Schedule of documents examined

Drawing No.	Rev	Title	Description	Scale
183248-001	P1	Land East of Tye Lane Walberton	Tye Lane Preliminary Site Access	As Shown
183248-002	A	Land East of Tye Lane Walberton	Proposed Access Improvements Tye Lane/Avisford Park Road	As Shown

SCHEME DRAWING

