



Technical Note

Project No: ITB14679
Project Title: Land South of Ford Lane – Y/48/21
Title: Additional Information
Ref: DS/ITB14679-007
Date: 18 May 2021

SECTION 1 INTRODUCTION

- 1.1 Redrow Homes has appointed i-Transport LLP to assist with the implantation of planning consent Y/80/16 for 100 new dwellings to the south of Ford Lane, Yapton.
- 1.2 A planning application (Y/48/21) has been submitted by Redrow Homes to Arun District Council for the construction of a temporary vehicle access off North End Road for a period of three years to allow safe access to the affordable units throughout the remaining period of construction.
- 1.3 The application was accompanied by a Technical Note (ITB14679-009 TN) that set out the proposed access arrangements. West Sussex County Council, as local highway authority, responded to the application seeking further information in relation to the following matters:
 - Clean access plan showing just the access arrangement and the removal of other CAD layers;
 - A Stage 1: Road Safety Audit incorporating Designer Response.
- 1.4 In addition, a speed survey has been undertaken on North End Road to inform the distance of visibility splays from the access.
- 1.5 This Technical Note summarises the additional information provided in response to the WSCC request, and the amendments made to the drawings.

SECTION 2 ROAD SAFETY AUDIT

- 2.1 A Stage 1 RSA has been undertaken by Fenley; a copy of the Audit incorporating the Design Team response and correspondence from the Auditor confirming acceptance of the response is provided at **Appendix A**.
- 2.2 The Audit raised 3 matters to be addressed:

- A vehicle travelling northbound on North End Road being able to pass a refuse collection vehicle (RCV) turning left into the site;
- A refuse vehicle unexpectedly re-encroaching onto the opposing lane of the carriageway within the site after completing their initial access manoeuvre; and
- The provision of tactile paving should an internal crossing be provided.

2.3 All matters have been addressed in accordance with the recommendations of the Auditor. To accommodate the RCV turning into the site, the kerb radii has been increased to 8.0m on both side of the access junction and tracking is provided that demonstrates a northbound vehicle is able to pass.

2.4 To enable RCV access within the site without re-encroachment after completion of the access manoeuvre, some further tapering of the footway adjacent to the access road is allowed for to 'smooth' the alignment within the site. The footway is retained at a minimum width of 2.0m at all points.

2.5 The need for a pedestrian crossing point within the site is dependent on the build-out within the site and the point at which the temporary vehicular access is closed. Notwithstanding, tactile paving has been identified at the crossing should the crossing be formed.

SECTION 3 VISIBILITY

3.1 North End Road is subject to a 30mph speed limit in the vicinity of the temporary site access. However, from observation of the site it appeared that vehicles may have been travelling slightly in excess of the speed limit. On that basis, a speed survey was commissioned to identify the 85th percentile speeds of vehicles travelling along North End Road to inform the visibility splays to be provided at the access.

3.2 Automatic Traffic Counts (ATCs) were placed on both the north and southbound approaches to the site access, commencing on the 5th April 2021 in order to avoid road works and temporary traffic signalisation present at the end of March. The ATC summary outputs are provided at **Appendix B** and the 85th percentile speeds are summarised in **Table 3.1**.

Table 3.1: Observed 85th Percentile Vehicle Speeds

Direction	85 th Percentile Speed (7-day ave.)
Northbound	33.5mph
Southbound	34mph

Source: ATC

- 3.3 Weather reports for the period the survey was undertaken suggest that there may have been some periods of precipitation. In accordance with paragraph 3.1.1. of DMRB CA 185 Revision 0, an additional 4kph (2.5mph) have been added to the speeds to account for a wet weather adjustment. On that basis, the following visibility splays are set out in **Table 3.2**.

Table 3.1: Observed 85th Percentile Vehicle Speeds

Visibility Direction	85 th Percentile Speed (7-day ave.)
South (based on Northbound Speeds)	56m
North (based on Southbound Speeds)	57m

Source: ATC

SECTION 4 AMENDED PLANS

- 4.1 The amendments to the access design have been incorporated into the following drawings:

- ITB14679-GA-003 Rev B – access arrangements (CAD layers removed); and
- OTB14679-GA-004 – vehicle tracking.

- 4.2 The amended drawings are appended at the end of this Technical Note.

SECTION 5 SUMMARY

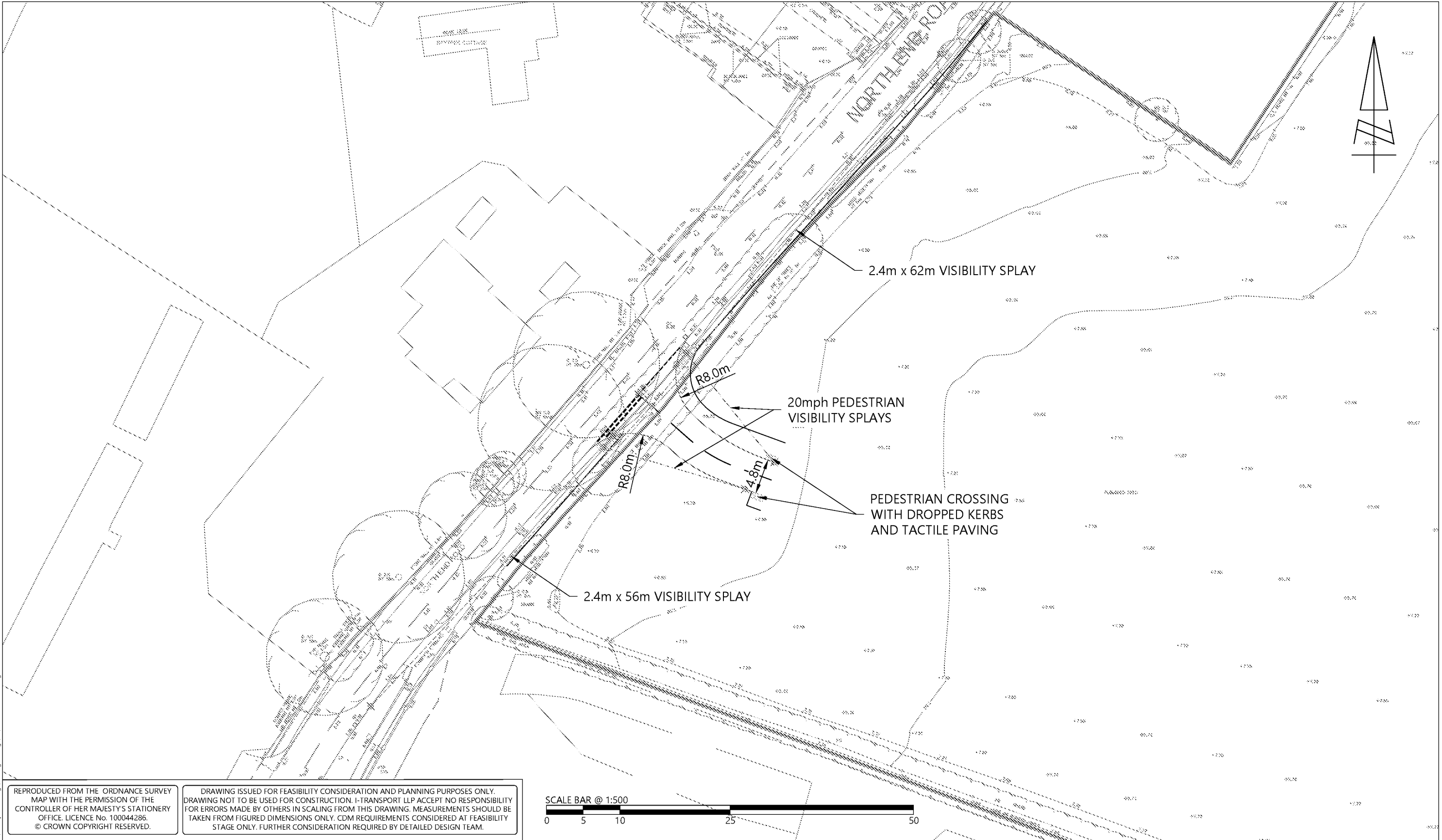
- 5.1 Redrow Homes has appointed i-Transport LLP to assist with the implantation of planning consent Y/80/16 for 100 new dwellings to the south of Ford Lane, Yapton.

- 5.2 WSCC has provided a consultation response requesting additional information in relation to the site access arrangements.

- 5.3 This Technical Note:

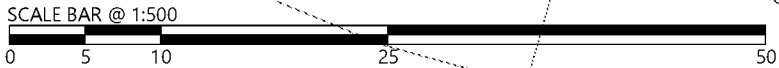
- Presents the findings of the Road Safety Audits and summarises the amendments made to address the Auditor recommendations;
- Reviews the visibility in the context of speed data; and
- Presents the amended plans.

DRAWINGS



REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. LICENCE No. 100044286. © CROWN COPYRIGHT RESERVED.

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 Grove House, Lutyens Close, Chineham Basingstoke, Hampshire, RG24 8AG www.i-transport.co.uk								TITLE: TEMPORARY ACCESS		DRAWN: JMc		CHECKED: DS		APPROVED: DS									
		B A		17.05.21 05.05.21		JD JD				RSA COMMENTS INCORPORATED SITE ACCESS ARRANGEMENT UPDATED		DS DS		DS DS									
		REV		DATE		BY		DESCRIPTION		CHK		APD		PROJECT: LAND SOUTH OF FORD LANE		CLIENT: REDROW HOMES		PROJECT No: ITB14679		SCALE @ A3: 1:500		DATE: 02.03.21	
		STATUS: FOR INFORMATION																DRAWING No: ITB14679-GA-003		REV: B			

APPENDIX A. ROAD SAFETY AUDIT AND AUDITOR CORRESPONDENCE

[REDACTED]

From: [REDACTED]
Sent: 17 May 2021 23:18
To: Dominic Smith
Cc: [REDACTED]
Subject: North End Road Temporary Access
Attachments: RSA-21-022-3.pdf

Importance: High

Dear Dominic

Thank you for your Design Organisation Response, please now find attached a PDF of the signed and finalised Stage 1 Road Safety Audit associated with your proposed temporary access off North End Road in Yapton.

I can confirm that your responses along with the revised plans, address each of the concerns raised at this stage. I understand that a Refuse / Recycling Collection Vehicle will encroach the opposing lane of the proposed access in the vicinity of the bellmouth, when manoeuvring from North End Road which is generally expected and drivers proceed with caution. It is good to see that the RCV can undertake the manoeuvre without the trailer swinging out into the path of opposing vehicles.

I trust that this is acceptable, should you need anything further, please do not hesitate to contact me.

Thank you again and kind regards

J amie

J amie Fenning
BSc (Hons), MIHE, MCIHT, MSoRSA, Highways England Certificate of Competency



Specialists in Road Safety Engineering

[REDACTED]
www.fenley.co.uk

Fenley is a Trading Name of Fenley Road Safety Limited

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Road Safety Audit Report

Incorporating

Stage 1 Completion of Preliminary Design;

Design Organisation Response to items raised.



Proposed Temporary Priority Access to Meadow Gardens off North End Road Yapton

Client:

i-Transport

Client reference:

ITB14679

Fenley
2 Blaenant
Emmer Green
READING
RG4 8PH

Report Status 3

Job no	RSA-21-022	Issue no	3	Date	May 2021
Prepared by	JJF	Verified by	FB	Approved by	JJF
Filename and Path	Fenley/Road Safety Audits/RSA-21/RSA-21-022-3				

1.0 PROJECT DETAILS

Report Title:	Stage 1 Road Safety Audit
Date:	May 2021
Document reference and revision:	RSA-21-022-3
Prepared by:	Fenley Road Safety Limited
On behalf of the Overseeing Organisation:	West Sussex County Council
Design Organisation:	i-Transport LLP
Project Sponsor:	Redrow Homes Ltd

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Stage 1 Road Safety Audit drafted for Audit Team discussions	JJF			14 th April 2021
1	Stage 1 Road Safety Audit finalised and issued to the Design Organisation	JJF	FB	JJF	13 th May 2021
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			13 th May 2021
3	Design Organisation Response incorporated	Dominic Smith on behalf of i-Transport			17 th May 2021

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	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 A proposed temporary priority access off the western side of the B2132 North End Road in Yapton, Arundel. The access is to be formed with a 6 metre entry corner radius and 8 metre exit corner radius which serves a 5.5 metre access carriageway that benefits from a footway along the northern side before reducing to 4.8 metres with a 2 metre footway either side, after approximately 16 metres. A dropped kerb uncontrolled crossing point with tactile paving is to be provided across the bellmouth to allow for the passage of users of the existing North End Road footway. It is understood that the temporary access is to serve up to 16 dwellings for a period of approximately 3 years after which the vehicular access will be stopped up and a footway cycleway link formed.
- 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 March 2021 in accordance with the initial and updated Road Safety Audit Briefs provided on the 11th February and 17th March 2021 by the Design Organisation, i-Transport, on behalf of the Project Sponsor, Redrow 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 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 associated with this Road Safety Audit has been visited on two occasions with the first unrelated to the proposals which was undertaken during the afternoon of Wednesday 26th August 2020 and the second following receipt of the initial Audit Brief on the 11th March between 11:30 and 12pm. The latest site visit involved walking and driving around the local highway network for a 30-minute period whilst observing local infrastructure and current traffic conditions. The weather during the site visit was overcast, the road surface was dry with damp patches and visibility was good. A number of pedestrians but cyclists were

observed during the site visit. Vehicular traffic to include cars, passenger service vehicles, light and heavy goods vehicles were also observed.

- 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**.

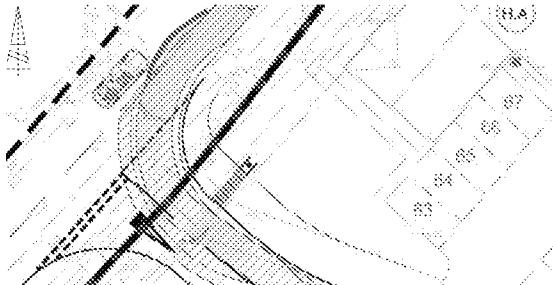
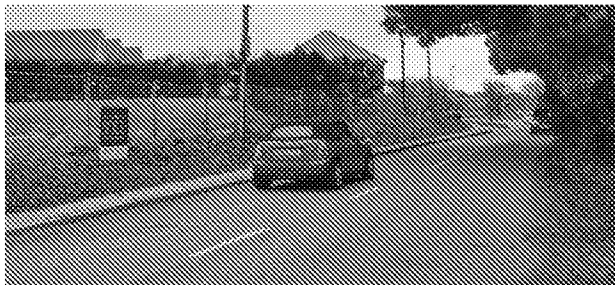
Design Organisation Response

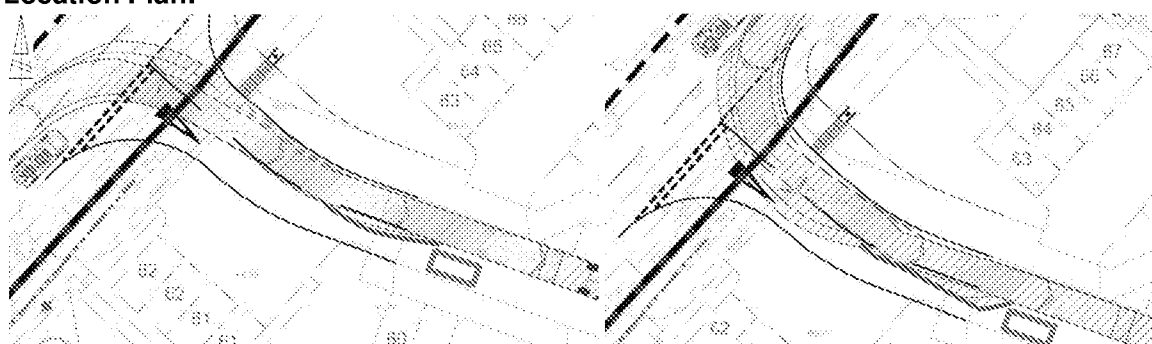
- 2.7 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit 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: Dominic Smith
Position / Organisation: Associate Partner, i-Transport LLP
- 2.9 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix A3**, if applicable.

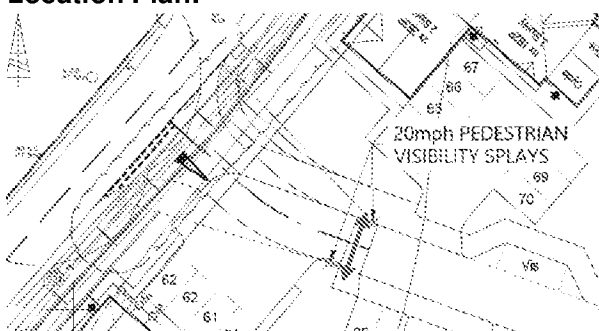
3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

- 3.1 Fenley Road Safety Limited are aware that the proposed vehicular access off Ford Lane and emergency / pedestrian / cyclist access off North End Road have been subject to a Stage 1 Road Safety Audit by others, ref: SG/RP/13-1006 RSA1v6 DR undertaken in June 2014 and have recently undertaken a Stage 1/2 Road safety Audit of the proposed amendments to the existing Public Rights Of Way (PROW) through the associated development site, but are not aware of any previous road safety audits associated with the temporary priority access.

4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

A.1	LOCAL ALIGNMENT
	<i>No Road Safety Concerns regarding LOCAL ALIGNMENT have been raised at this stage</i>
A.2	GENERAL
A.2.1	PROBLEM
Location:	North End Road
Summary:	The trailer of a refuse collection vehicle encroaches the opposing lane where one would not expect
Acc Type:	Sideswipes and loss of control
The B2132 North End Road forms a link between the A27 to the north and the B2233 to the south and is subject to a 30mph speed limit in proximity. The road serves a number of direct frontages as well as number priority access in the vicinity. As can be expected, refuse collection vehicles manoeuvre onto and off North End Road at various locations. The proposals subject to this Stage 1 Road Safety Audit include the provision of a temporary simple priority access off the western side of North End Road which accommodates a 6 metre entry radius. The scheme drawings provided with the Audit Brief, include a swept path of a refuse / recycling collection vehicle (RCV) turning left into the proposed access that illustrates the trailer of the vehicle swinging out into the opposing lane as well as encroaching the entire width of the access when undertaking the manoeuvre. Whilst the driver of a RCV will wait within the North End Road carriageway and not attempt to undertake the manoeuvre when a vehicle travelling along the access road approaching the give-way, a northbound vehicle would not expect the trailer of the RCV to swing out into their path when passing which could lead to sideswipe or loss of control type collisions.	
RECOMMENDATION:	
It is recommended that a slacker inside corner radius is provided	
Location Plan:  	
DESIGN ORGANISATION RESPONSE provided by I-Transport on the 17 th May 2021 following formal issue of this Stage 1 Road Safety Audit on the 13 th May 2021	
Accepted – the swept path analysis has been adjusted and as illustrated on Dwg ITB14679-GA-003 Rev B to provide for a 8m radii on both sides of the access road. A RCV can turn left into the access road without the trailer encroaching the opposing lane to the extent that it would obstruct	

oncoming traffic as shown in drawing ITB14679-GA-004. The vehicle encroaches the entire width of the proposed access road, however, this is common practice and the drivers of such vehicles do not commence their journey unless it is clear to do so.	
A.2.2	PROBLEM
Location:	Proposed access road
Summary:	Heavy goods vehicles encroach the opposing lane where one would not expect
Acc Type:	Sideswipes
The B2132 North End Road forms a link between the A27 to the north and the B2233 to the south and is subject to a 30mph speed limit in proximity. The proposals subject to this Stage 1 Road Safety Audit include the provision of a temporary simple priority access off the western side of North End Road that serves an access road that is 5.5 metres wide which reduces to 4.8 metres after circa 16 metres with a 20 metre inside radius. The scheme drawings provided with the Audit Brief, include a swept path of a refuse / recycling collection vehicle (RCV) turning into the proposed access that illustrates the vehicle encroaching the entire width of the access and part of the access road where the carriageway reduces, when undertaking the manoeuvre. Whilst the driver of a RCV will wait within the North End Road carriageway and not attempt to undertake the manoeuvre when a vehicle travelling along the access road approaching the give-way, the driver of a westbound vehicle is unlikely to expect the RCV to encroach their path at this location which could lead to sideswipe or loss of control type collisions.	
RECOMMENDATION:	
It is recommended that a slacker inside corner radius is provided	
Location Plan: 	
DESIGN ORGANISATION RESPONSE provided by i-Transport on the 12th May 2021 following formal issue of this Stage 1 Road Safety Audit on the 13th May 2021	
Accepted – the radii of the junction has been increased to 8m. The plan that was utilised for the swept path analysis included a 3.0 metre footway cycleway along the northern side which is to be retained as part of the permanent arrangements at this location; the width has been reduced to 2.0m for a short distance to accommodate the manoeuvre. As noted on the previous matter, the RCV does take up the entire width of the carriageway within the site, however, such movements are infrequent and a common occurrence in such locations across the local area. There is no	

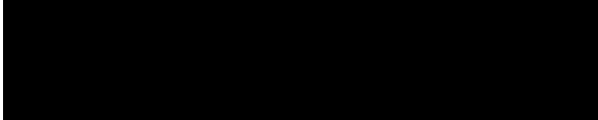
evidence such manoeuvres result in a highway safety issue. Within the site, the RCV does not cross then re-cross the centre line, a manoeuvre which may otherwise be unexpected.	
A.3	JUNCTIONS
	<i>No Road Safety Concerns regarding JUNCTIONS have been raised at this stage</i>
A.4	WALKING CYCLING AND HORSE RIDING
A.4.1	PROBLEM
Location:	Proposed access road
Summary:	No level access is provided for pedestrians to cross the proposed access road
Acc Type:	User trip and fall
The proposals that are subject to this Stage 1 Road Safety Audit includes the provision of a temporary simple priority access that is proposed to serve up to 16 dwellings and accommodates a 2.0 metre footway along the northern side. The scheme drawing provided with the Audit Brief, includes an illustration of a site layout with a 4.8 metre wide access road that benefits from a 2.0 metre footway both sides of the carriageway. The Audit Team is unaware if the illustration is the layout that will be in place for the temporary three year period when the proposed access is to be in use, however, no crossing point is provided to allow pedestrians level passage between the southern footway and northern footway that connects to the existing footway network which is highly likely to form a desire line.	
RECOMMENDATION:	
It is recommended that a dropped kerb crossing point with tactile paving is provided.	
Location Plan: 	
DESIGN ORGANISATION RESPONSE provided by i-Transport on the 12 th May 2021 following formal issue of this Stage 1 Road Safety Audit on the 13 th May 2021	
Accepted – the identified matter relates to the permanent layout of the site and therefore may not present during the lifetime of the temporary access. Notwithstanding, should footway be introduced on both sides of the access road while the access is in situ, a pedestrian crossing point will be provided as shown in drawing ITB14679-GA-003 Rev B.	
A.5	ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING
	<i>No Road Safety Concerns regarding ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING have been raised at this stage</i>

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: 

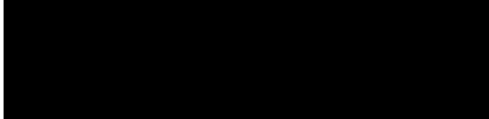
Position: Road Safety / Highway Engineer

Organisation: Fenley Road Safety Limited

Date: 13th May 2021

Audit Team Member

Name: **Farouk Bhatti** *MCIHT*

Signed: 

Position: Road Safety Engineer

Organisation: Fenley Road Safety Limited

Date: 13th May 2021

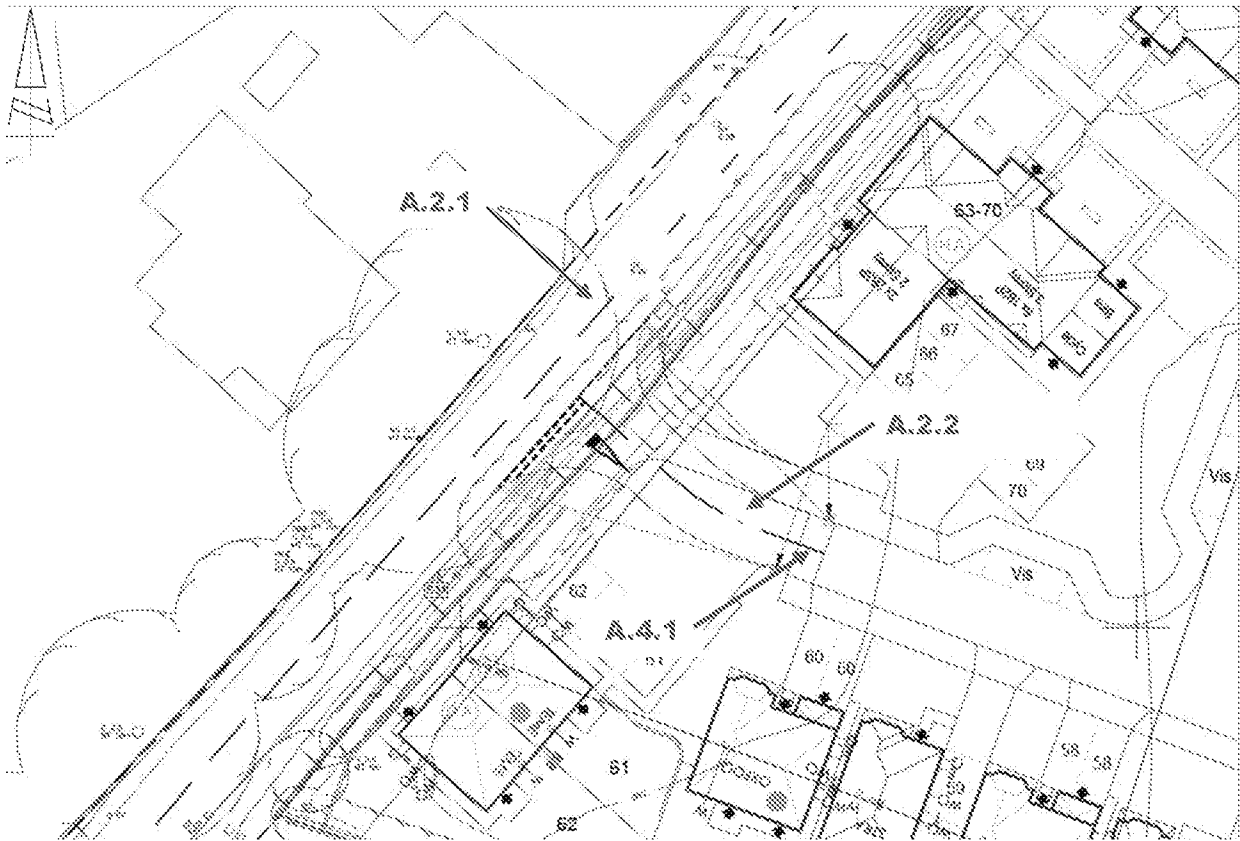
Appendix A1

Documents and Drawings provided for this Stage 1 Road Safety Audit

<u>Audit Stage</u>	<u>Doc. No.</u>	<u>Rev</u>	<u>Title</u>
Stage 1	Email dated 11 th Feb '21		Initial Stage 1 Road Safety Audit Brief
	ITB14679-006	A	Stage 1 Road Safety Audit Brief
	<u>Dwg No.</u>	<u>Rev</u>	<u>Title</u>
	ITB14679-GA-003	-	Temporary Access
	18-344/1001		Vehicle Swept Path Analysis
	18-344/400	C	Bus Stop / Footway Works Section 278 Agreement Plan

Appendix A2

Item Location Plan



Appendix A3

Drawings associated with the Design Organisation Response

<u>Audit Stage</u>	<u>Drawing No.</u>	<u>Rev</u>	<u>Title</u>
Stage 1	ITB14679-GA-003	B	Temporary Access
	ITB14679-GA-003	-	Swept Path Analysis – Refuse Vehicle / Estate Car

fenley

APPENDIX B. SPEED SURVEY OUTPUTS

Intelligent Data Collection Limited

Client: I-Transport
Project Number: D05679
Site Number: Site 1
Flow From: Church Lane (S) to: Saxon Way (N)



5-day Summary

	speeds (mph)																					
Time	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	Mean	85th %ile	
00:00	0	0	1	2	5	4	2	2	1	0	0	0	0	0	0	0	0	0	0	31.02	-	
01:00	0	0	2	0	0	4	1	1	0	0	0	0	0	0	0	0	0	0	0	28.63	-	
02:00	0	0	0	0	1	2	3	3	1	0	0	0	0	0	0	0	0	0	0	37.52	-	
03:00	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	38.20	-	
04:00	0	0	0	0	4	8	4	3	0	0	0	0	0	0	0	0	0	0	0	33.00	-	
05:00	0	7	2	4	27	49	27	9	4	3	2	0	0	0	0	0	0	0	0	33.48	44.30	
06:00	1	21	9	18	137	198	101	33	9	3	2	0	0	0	0	0	0	0	0	31.86	39.98	
07:00	3	13	30	101	453	353	89	18	2	0	0	0	0	0	0	0	0	0	0	29.37	33.74	
08:00	3	21	28	113	375	286	77	10	1	0	0	0	0	0	0	0	0	0	0	28.71	33.44	
09:00	4	15	38	173	415	242	40	5	1	0	0	0	0	0	0	0	0	0	0	27.75	32.33	
10:00	9	33	64	185	384	183	33	5	0	0	0	0	0	0	0	0	0	0	0	26.51	31.37	
11:00	0	31	55	211	405	176	33	3	1	0	0	0	0	0	0	0	0	0	0	26.68	31.21	
12:00	0	24	38	232	373	141	35	6	0	0	0	0	0	0	0	0	0	0	0	26.59	31.26	
13:00	5	20	70	190	360	151	27	3	1	0	0	0	0	0	0	0	0	0	0	26.41	31.20	
14:00	5	16	59	154	332	141	25	1	0	0	0	0	0	0	0	0	0	0	0	26.53	31.12	
15:00	2	13	42	177	310	133	41	7	0	0	0	0	0	0	0	0	0	0	0	27.08	31.69	
16:00	2	22	52	122	282	140	36	6	2	0	0	0	0	0	0	0	0	0	0	27.01	31.72	
17:00	3	10	23	105	231	164	51	15	1	0	0	0	0	0	0	0	0	0	0	28.60	33.78	
18:00	1	8	15	52	134	83	41	7	4	2	0	0	0	0	0	0	0	0	0	29.04	33.97	
19:00	0	1	4	18	82	62	30	10	1	1	0	0	0	0	0	0	0	0	0	30.81	36.83	
20:00	0	1	3	16	47	43	12	8	0	0	0	0	0	0	0	0	0	0	0	30.21	33.00	
21:00	0	1	5	7	29	30	11	1	1	0	0	0	0	0	0	0	0	0	0	29.44	34.80	
22:00	0	0	3	3	5	13	6	1	0	1	0	0	0	0	0	0	0	0	0	29.84	-	
23:00	0	1	2	6	5	9	3	1	0	0	0	0	0	0	0	0	0	0	0	29.68	-	
07:00 - 19:00	37	226	514	1815	4054	2193	528	85	13	2	0	0	0	0	0	0	0	0	0	27.33	32.15	
06:00 - 22:00	38	250	535	1874	4349	2526	682	138	24	6	0	0	0	0	0	0	0	0	0	27.65	32.58	
06:00 - 00:00	38	251	540	1883	4359	2548	691	140	24	7	0	0	0	0	0	0	0	0	0	28.26	32.63	
00:00 - 00:00	38	258	545	1889	4397	2615	729	158	31	10	2	0	0	0	0	0	0	0	0	28.31	32.75	

7-day Summary

	speeds (mph)																				
Time	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	Mean	85th Mile
00:00	0	0	1	2	7	6	7	2	1	0	0	0	0	0	0	0	0	0	0	31.51	-
01:00	0	0	3	0	0	4	1	1	0	1	3	0	0	0	0	0	0	0	0	31.33	-
02:00	0	0	0	0	1	3	4	3	3	0	0	0	0	0	0	0	0	0	0	38.68	-
03:00	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	38.20	-
04:00	0	0	1	3	4	11	6	3	0	0	0	0	0	0	0	0	0	0	0	32.35	-
05:00	0	7	2	4	28	54	28	11	4	3	2	0	0	0	0	0	0	0	0	33.80	44.30
06:00	1	22	10	18	147	213	112	44	9	5	0	0	0	0	0	0	0	0	0	32.72	40.09
07:00	3	15	32	104	484	384	111	23	2	0	0	0	0	0	0	0	0	0	0	29.93	34.26
08:00	3	23	30	121	422	345	98	14	2	0	0	0	0	0	0	0	0	0	0	29.26	34.11
09:00	4	21	39	181	477	332	61	10	3	0	0	0	0	0	0	0	0	0	0	28.48	33.13
10:00	10	36	74	197	479	272	55	10	1	0	0	0	0	0	0	0	0	0	0	27.23	32.13
11:00	1	33	60	219	529	268	65	9	1	0	0	0	0	0	0	0	0	0	0	27.48	32.09
12:00	0	25	49	254	450	235	56	11	0	0	0	0	0	0	0	0	0	0	0	27.33	32.03
13:00	5	27	75	210	429	239	49	7	2	0	0	0	0	0	0	0	0	0	0	27.16	32.08
14:00	5	18	63	166	405	199	43	6	1	0	0	0	0	0	0	0	0	0	0	27.44	32.28
15:00	3	15	45	184	359	218	62	13	0	0	0	0	0	0	0	0	0	0	0	28.03	32.60
16:00	3	25	57	129	331	195	54	13	2	1	0	0	0	0	0	0	0	0	0	27.90	32.70
17:00	3	10	25	108	255	201	69	16	1	0	0	0	0	0	0	0	0	0	0	29.28	34.06
18:00	1	10	20	59	153	113	62	10	6	2	0	0	0	0	0	0	0	0	0	29.72	34.65
19:00	0	1	7	19	99	87	49	14	2	2	0	0	0	0	0	0	0	0	0	31.43	36.75
20:00	0	1	4	19	58	68	25	11	0	0	0	0	0	0	0	0	0	0	0	30.75	33.00
21:00	0	1	6	9	32	45	16	4	1	0	0	0	0	0	0	0	0	0	0	30.17	34.80
22:00	0	0	3	3	8	21	9	1	0	1	0	0	0	0	0	0	0	0	0	30.88	-
23:00	0	2	2	6	9	12	5	2	1	0	0	0	0	0	0	0	0	0	0	30.26	-
07:00 - 19:00	41	258	569	1932	4773	3001	785	142	21	3	0	0	0	0	0	0	0	0	0	28.11	32.90
06:00 - 22:00	42	283	596	1997	5109	3414	987	215	33	10	0	0	0	0	0	0	0	0	0	28.40	33.35
06:00 - 00:00	42	285	601	2006	5126	3447	1001	218	34	11	0	0	0	0	0	0	0	0	0	28.79	33.39
00:00 - 00:00	42	293	608	2015	5167	3525	1048	238	43	15	2	0	0	0	0	0	0	0	0	28.84	33.49

Intelligent Data Collection Limited

Client: I-Transport
Project Number: D05679
Site Number: Site 2
Flow From: N End Road (N) to: Saxon Way (S)



5-day Summary

Time	Speeds (Mph)																			Mean	85th %ile
	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100		
00:00	0	0	1	1	3	8	5	1	0	0	0	0	0	0	0	0	0	0	0	32.40	-
01:00	0	0	1	3	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	28.77	-
02:00	0	0	1	0	3	3	2	2	0	1	0	0	0	0	0	0	0	0	0	32.44	-
03:00	0	0	0	0	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	31.19	-
04:00	0	2	0	1	7	10	5	0	0	0	0	0	0	0	0	0	0	0	0	30.28	-
05:00	0	2	6	3	13	7	11	3	0	0	0	0	0	0	0	0	0	0	0	29.56	-
06:00	0	4	5	26	29	41	12	5	0	0	0	0	0	0	0	0	0	0	0	28.91	35.30
07:00	1	8	12	46	126	108	40	8	1	0	0	0	0	0	0	0	0	0	0	29.34	34.13
08:00	11	17	31	102	172	126	28	1	0	0	0	0	0	0	0	0	0	0	0	26.84	32.45
09:00	2	13	53	120	235	14	5	0	0	0	0	0	0	0	0	0	0	0	0	26.64	31.60
10:00	3	51	70	158	310	161	31	2	0	0	0	0	0	0	0	0	0	0	0	26.08	31.19
11:00	10	34	99	202	341	162	28	4	0	0	0	0	0	0	0	0	0	0	0	25.95	31.28
12:00	10	40	76	221	399	192	34	4	0	0	0	0	0	0	0	0	0	0	0	26.22	31.16
13:00	10	50	95	181	392	215	40	5	2	0	0	0	0	0	0	0	0	0	0	26.27	31.61
14:00	14	50	100	195	372	187	33	6	0	0	0	0	0	0	0	0	0	0	0	25.67	31.11
15:00	16	42	99	219	387	236	44	8	0	1	0	0	0	0	0	0	0	0	0	26.22	31.24
16:00	20	90	140	209	447	335	93	15	2	0	0	0	0	0	0	0	0	0	0	26.69	32.24
17:00	24	71	98	175	377	419	127	26	1	2	0	0	0	0	0	0	0	0	0	27.89	33.65
18:00	9	75	72	109	236	263	71	12	1	0	0	0	0	0	0	0	0	0	0	27.90	33.00
19:00	4	10	26	50	109	133	49	7	2	1	0	0	0	0	0	0	0	0	0	28.91	34.39
20:00	0	3	7	35	83	84	28	7	5	1	0	0	0	0	0	0	0	0	0	30.25	35.69
21:00	1	0	2	12	36	39	14	5	0	1	0	0	0	0	0	0	0	0	0	30.64	-
22:00	1	3	4	7	26	19	13	3	1	0	0	0	0	0	0	0	0	0	0	29.13	-
23:00	0	0	2	4	16	16	5	3	2	0	0	0	0	0	0	0	0	0	0	31.82	-
07:00 - 19:00	130	541	945	1937	3794	2530	583	96	7	3	0	0	0	0	0	0	0	0	0	26.23	31.62
06:00 - 22:00	135	558	985	2060	4051	2827	686	120	14	6	0	0	0	0	0	0	0	0	0	26.42	31.85
06:00 - 00:00	136	561	991	2071	4093	2862	704	126	17	6	0	0	0	0	0	0	0	0	0	27.10	32.76
00:00 - 00:00	136	565	1000	2079	4122	2899	731	132	17	7	0	0	0	0	0	0	0	0	0	27.16	32.86

7-day Summary

Time	Speeds (Mph)																			Mean	85th %ile
	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100		
00:00	0	0	1	3	6	14	7	2	3	0	0	0	0	0	0	0	0	0	0	32.93	-
01:00	0	0	1	3	2	7	4	1	0	0	0	0	0	0	0	0	0	0	0	31.10	-
02:00	0	1	1	0	3	6	3	2	1	1	0	0	0	0	0	0	0	0	0	33.20	-
03:00	0	0	0	1	2	6	1	0	0	0	0	0	0	0	0	0	0	0	0	29.92	-
04:00	0	2	1	1	7	11	9	1	0	0	0	0	0	0	0	0	0	0	0	31.29	-
05:00	0	2	6	4	13	9	13	3	0	0	0	0	0	0	0	0	0	0	0	29.81	-
06:00	0	4	5	28	32	47	18	6	0	0	0	0	0	0	0	0	0	0	0	30.12	35.30
07:00	1	8	13	46	134	124	54	9	1	0	0	0	0	0	0	0	0	0	0	30.20	34.13
08:00	11	18	33	107	194	151	39	7	1	1	0	0	0	0	0	0	0	0	0	28.13	32.87
09:00	2	17	57	126	284	188	37	10	0	0	0	0	0	0	0	0	0	0	0	27.62	32.53
10:00	3	53	76	171	388	248	46	5	1	0	0	0	0	0	0	0	0	0	0	26.96	31.98
11:00	11	37	102	218	430	252	55	5	0	0	0	0	0	0	0	0	0	0	0	26.80	32.05
12:00	12	42	81	240	489	298	60	8	0	0	0	0	0	0	0	0	0	0	0	27.06	31.96
13:00	10	54	96	194	484	300	74	8	2	0	0	0	0	0	0	0	0	0	0	27.13	32.41
14:00	15	55	106	208	472	263	73	7	1	0	0	0	0	0	0	0	0	0	0	26.65	31.99
15:00	16	44	101	230	463	337	73	15	1	1	0	0	0	0	0	0	0	0	0	27.29	32.30
16:00	24	93	146	215	506	420	122	18	2	0	0	0	0	0	0	0	0	0	0	27.47	32.95
17:00	24	72	99	181	436	474	155	33	1	2	0	1	0	0	0	0	0	0	0	28.75	34.40
18:00	9	78	78	114	282	318	99	20	1	1	0	0	0	0	0	0	0	0	0	28.65	33.95
19:00	5	14	27	54	125	169	63	12	2	1	0	0	0	0	0	0	0	0	0	29.47	34.91
20:00	0	3	7	38	102	112	42	9	6	1	0	0	0	0	0	0	0	0	0	30.83	35.93
21:00	1	1	2	19	42	52	27	9	1	1	0	0	0	0	0	0	0	0	0	31.40	-
22:00	1	3	4	8	30	23	22	4	1	1	1	0	0	0	0	0	0	0	0	30.63	-
23:00	0	0	2	5	17	23	8	5	2	0	0	0	0	0	0	0	0	0	0	32.75	-
07:00 - 19:00	138	571	988	2050	4562	3373	887	145	11	5	0	1	0	0	0	0	0	0	0	27.31	32.55
06:00 - 22:00	144	593	1029	2183	4863	3753	1037	181	20	8	0	1	0	0	0	0	0	0	0	27.49	32.80
06:00 - 00:00	145	596	1035	2196	4910	3799	1067	190	23	9	1	1	0	0	0	0	0	0	0	27.90	33.40
00:00 - 00:00	145	601	1045	2208	4943	3852	1104	199	27	10	1	1	0	0	0	0	0	0	0	27.96	33.51