

6 TRAFFIC SURVEYS AND JUNCTION ASSESSMENT – SITE ACCESS / YAPTON LANE

6.1 Introduction

- 6.1.1 A capacity assessment of the site access junction onto Yapton Lane was requested by WSCC Highways at the pre – application stage, with the predicted year of occupation (taken to be 2026) and the end of the current local plan (2031) requested as future year scenarios.

6.2 Surveys

- 6.2.1 An Automatic Traffic Count Survey was undertaken between the 7th of June and the 13th of June 2021, with full results attached at **Appendix B**.

6.3 Base Flows on Yapton Lane

- 6.3.1 Table 6-1 below summarises the total flows observed during the network AM and PM peak hours of 08:00 – 09:00 and 17:00 – 18:00 respectively and the impact of development traffic on this link.

Table 6-1 Existing Traffic Flows and Development Flows on Yapton Lane

Period	Existing Flows (2021 Base Flows)	Development Flows	Percentage Increase in Traffic
AM Peak Hour – North of site access	448	27	6.0%
AM Peak Hour – South of site access	448	11	2.5%
PM Peak Hour – North of site access	476	27	5.7%
PM Peak Hour – South of site access	476	10	2.1%

- 6.3.2 Table 6-1 shows that the development proposals have the potential to increase total traffic flows utilising Yapton Lane to the north of the site access 6% and 2.5% in the AM and PM peak hours, respectively. To the south of the site access, the development proposals have the potential to increase traffic flows by 5.7% and 2.1% in the AM and PM peak hours respectively. Neither of these impacts is expected to have a significant effect on the operation of Yapton Lane.

6.4 Future Year Flows

- 6.4.1 Beyond the base year of 2021 future assessments are undertaken for 2026 as this corresponds to a date that is five years from registration of a Planning Application as promoted within the DfT's Guidance on Transport Assessment and represents the likely full occupation year as requested within the pre – application correspondence with WSCC Highways department. A further future year scenario of 2031 has also been modelled, corresponding with the end of the local plan period, as requested within the pre – application correspondence with WSCC Highways department.

6.4.2 The Department for Transport (DfT) Trip End Model Programme 7.2 (TEMPro) software has been used to establish growth rates to apply to the 2021 base data.

6.4.3 Regional traffic growth forecasts from the National Transport Model (NTM) RTF 2018 Scenario 1 have been adjusted using AM and PM peak period local data from the NTM obtained through the TEMPro 7.2b computer programme. The NTM factors used are the origins and destinations for the Arun 003 MSOA. The road type selected was 'minor'.

Table 6-2 TEMPro Growth Factors

Growth Period	Time Period	Growth Rate
2021 - 2026	AM Peak	1.032
	PM Peak	1.0338
2021 - 2031	AM Peak	1.0584
	PM Peak	1.0619

6.4.4 The above factors have been applied to the 2021 Base Flows, and the resultant vehicle trips are displayed in Table 6-3 and Table 6-4 below.

Table 6-3 2026 'Do Nothing' Flows

Time Range	Northbound	Southbound
08:00-09:00	286	177
17:00-18:00	162	330

Table 6-4 2031 'Do Nothing' Flows

Time Range	Northbound	Southbound
08:00-09:00	293	181
17:00-18:00	167	339

6.5 Highway Capacity Analysis

6.5.1 The Transportation Research Laboratory (TRL) program PICADY (within Junctions 8) has been used to assess the capacity of the Site Access / Yapton Lane junction. The scenarios considered are as follows:

- 2026 Do Something; and
- 2031 Do Something

6.6 Method of Reporting

6.6.1 Base and future year traffic conditions are reported using the following performance indicators identified by PICADY:

- Maximum Ratio of Flow to Capacity (RFC); and
- Queue Length (Q) for the peak 15 minutes period within the assessed peak hour.

6.6.2 Junctions are considered to be operating in excess of practical capacity where the Ratio of Flow to Capacity (RFC) exceeds 0.85 with theoretical capacity reached at a value of 1.00.

6.7 Site Access / Yapton Lane Modelling Results

6.7.1 Table 6-5 shows the results of highways capacity analysis. The model output reports are supplied as **Appendix E**.

Table 6-5 Site Access / Yapton Lane PICADY Results

Arm	2025 Do Something				2031 Do Something			
	AM		PM		AM		PM	
	Q (Veh)	RFC	Q (Veh)	RFC	Q (Veh)	RFC	Q (Veh)	RFC
Site Access	0.07	0.06	0.03	0.03	0.07	0.06	0.03	0.03
Yapton Lane Northbound (Right Turn into the site)	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01

6.7.2 Table 6-5 shows that significant residual capacity exists at the junction between the site access and Yapton Lane in the future year scenarios. It confirms that the forecast increase in traffic due to the proposed development will result in no severe impacts on highway capacity or operation at this location.

7 JUNCTION ASSESSMENT – YAPTON LANE / A27 JUNCTION

7.1 Introduction

7.1.1 A capacity assessment of the junction between Yapton Lane and the A27 to the north of the site was requested by WSCC Highways and Highway England (HE) at the pre – application stage, with the predicted year of occupation and the end of the current local plan requested as future year scenarios by WSCC. Highways England requested that assessment take place at the opening year and for either ten years after the registration of the planning application or the end of the relevant local plan (whichever is greater).

7.1.2 The selected future year scenarios of 2026 and 2031 therefore accord with the stipulations from both WSCC and HE.

7.1.3 HE have requested that modelling be undertaken that accounts for the A27 Upgrade that would modify it's junction with Yapton Lane. HE's Area 4 Spatial Planning Manager noted within HE's response that:

- *“(Modelling of the modified Yapton Lane junction in light of the A27 upgrade) ... will need to be provided for review and I will need to advise further on this matter following discussions internally as the information is currently being compiled for DCO submission and is therefore unlikely to be permitted to enter the public domain at this time.”*

7.1.4 It is considered that the provision of this additional modelling for the A27 Upgrade scenarios could be conditioned as part of any forthcoming planning permission that may be granted to the development proposed herein.

7.1.5 Notwithstanding the above, a number of local planning applications also include a condition that requires an improvement to be undertaken to the A27/Yapton Lane junction as shown on I-Transport drawing number ITB11324-GA-014 Rev C, which involves increasing the length of the right turn lane into Yapton Lane from the A27 eastbound. The 2021 Base Scenario considers the right turn lane in its current form, with the future year scenarios considering it in its extended form, per the I – Transport Drawing.

7.2 TEMPRO

7.2.1 The Department for Transport (DfT) Trip End Model Programme 7.2 (TEMPro) software has been used to establish growth rates to apply to the 2017 survey data.

7.2.2 Regional traffic growth forecasts from the National Transport Model (NTM) RTF 2018 Scenario 1 have been adjusted using AM and PM peak period local data from the NTM obtained through the TEMPro 7.2b computer programme. The NTM factors used are the origins and destinations for the Arun 003 MSOA. All road types were selected. The resultant growth factors can be seen in Table 7-1 overleaf.

Table 7-1 TEMPRO Growth Factors

Growth Period	Time Period	Growth Rate
2017 - 2021	AM Peak	1.0344
	PM Peak	1.0336
2017 - 2026	AM Peak	1.0733
	PM Peak	1.0744

7.3 2021 Base Flows

7.3.1 Base Flows have been derived from one of several Manual Classified Count surveys within the June 2017 Transport Assessment undertaken as part of the 'Land East of Tyle Lane, Walberton' development (Planning Application Reference Number: WA/44/17/OUT - hereafter referred to as 'the Tye Lane TA').

7.3.2 The surveyed 2017 flows at the junction are shown within Table 7-2 and Table 7-3 below.

Table 7-2 2017 AM Surveyed Flows (0800-0900)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		40	1055
Yapton Lane			495
A27 W	885	165	

Table 7-3 2017 AM Surveyed Flows (1700-1800)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		75	881
Yapton Lane			167
A27 W	999	354	

7.3.3 The flows derived from this survey, undertaken in 2017, have been factored utilising the relevant TEMPRO factors to form the '2021 Base' Scenario, as can be seen in Table 7-5 and Table 7-5.

Table 7-4 2021 AM Base Flows (0800-0900)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		41	1091
Yapton Lane			512
A27 W	915	171	

Table 7-5 2021 PM Base Flows (1700-1800)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		78	911
Yapton Lane			173
A27 W	1033	366	

7.4 2026 Do Nothing and Do Something Scenarios

7.4.1 The '2026 Do Nothing' scenario consists of the 2017 Survey Flows (growthed to 2026 using the relevant TEMPRO factors) combined with the Tye Lane Development Flows, as can be seen in Table 7-7 and Table 7-7 below.

Table 7-6 2026 AM Do Nothing Flows (0800-0900)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		47	1132
Yapton Lane			586
A27 W	960	193	

Table 7-7 2026 PM Do Nothing Flows (1700-1800)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		90	947
Yapton Lane			208
A27 W	1079	420	

7.4.2 The '2026 Do Something' scenario consists of combining the '2026 Do Nothing' scenario with the development flows arising from the proposals outlined herein, as can be seen in Table 7-9 and Table 7-9 below.

Table 7-8 2026 AM Do Something Flows (0800-0900)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		48	1132
Yapton Lane			606
A27 W	960	199	

Table 7-9 2026 PM Do Something Flows (1700-1800)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		93	947
Yapton Lane			217
A27 W	1079	435	

7.5 2031 Do Nothing and Do Something Scenarios

7.5.1 The '2031 Do Nothing' scenario consists of the '2031 LP with MIT + Dev' scenario flows taken from the Tye Lane TA that includes for committed Local Plan developments and highways mitigation schemes up to 2031, as can be seen in Table 7-11 and Table 7-11.

Table 7-10 2031 AM Do Nothing Flows (0800-0900)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		4	1174
Yapton Lane			261
A27 W	1230	138	

Table 7-11 2031 PM Do Nothing Flows (1700-1800)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		9	1264
Yapton Lane			160
A27 W	1185	345	

7.5.2 The '2031 Do Something' scenario consists of the above '2031 Do Nothing' scenario with the addition of the flows for the development proposed herein, as can be seen in Table 7-13 and Table 7-13 below.

Table 7-12 2031 AM Do Something Flows (0800-0900)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		5	1174
Yapton Lane			281
A27 W	1230	144	

Table 7-13 2031 PM Do Something Flows (1700-1800)

From (Down) / To (Right)	A27 E	Yapton Lane	A27 W
A27 E		12	1264
Yapton Lane			169
A27 W	1185	360	

7.6 Method of Reporting

7.6.1 Base and future year traffic conditions are reported using the following performance indicators identified by PICADY:

- Maximum Ratio of Flow to Capacity (RFC); and
- Queue Length (Q) for the peak 15 minutes period within the assessed peak hour.

7.6.2 Junctions are considered to be operating in excess of practical capacity where the Ratio of Flow to Capacity (RFC) exceeds 0.85 with theoretical capacity reached at a value of 1.00.

7.7 Yapton Lane / A27 Modelling Reports

7.7.1 Table 7-14 below provides the results of the highway capacity analysis undertaken for the 2021 Base scenario.

7.7.2 The full modelling report for this scenario is included within **Appendix F** at the rear of this report.

Table 7-14 Yapton Lane / A27 PICADY Results – 2021 Base

Arm	2021 Base			
	AM		PM	
	Q (Veh)	RFC	Q (Veh)	RFC
Yapton Lane	11.09	0.95	0.43	0.30
A27 (Right Turn into Yapton Lane)	0.49	0.33	1.97	0.67

7.7.3 It is noted that in the '2021 Base' scenario without the inclusion of any development traffic as a result of the proposals herein outlined, the Yapton Lane / A27 junction is exceeding its practical capacity on the minor arm in the AM peak. The A27 performs well within practical capacity within the AM peak, and all arms perform well within practical capacity within the PM peak.

7.7.4 Growing the traffic flows to 2026 using TEMPRO and adding the Tye Lane development flows gives the '2026 Do Nothing' scenario, as can be seen in Table 7-15 below.

7.7.5 The full modelling reports for this and all other future scenarios are included at **Appendix G** at the rear of this report.

Table 7-15 Yapton Lane / A27 PICADY Results – 2026 Do Nothing

Arm	2026 Do Nothing			
	AM		PM	
	Q (Veh)	RFC	Q (Veh)	RFC
Yapton Lane	49.39	1.15	0.61	0.38
A27 (Right Turn into Yapton Lane)	0.66	0.40	4.05	0.82

7.7.6 It is noted that in the 2026 Do Nothing scenario, without the inclusion of any development traffic, the minor arm of the Yapton Lane / A27 junction is well over practical and theoretical capacity in the AM Peak, while it is well within practical capacity in the PM peak. The major arm of the junction is well within practical capacity within the AM peak, and approaching practical capacity within the PM peak. It is noted that there is no significant queueing that

cannot be accommodated within the right turn lane into Yapton Lane in either the AM or PM peak.

- 7.7.7 Adding the development flows to the above scenario gives the '2026 Do Something' scenario that can be seen in Table 7-16 below.

Table 7-16 Yapton Lane / A27 PICADY Results – 2026 Do Something

Arm	2026 Do Something			
	AM		PM	
	Q (Veh)	RFC	Q (Veh)	RFC
Yapton Lane	60.37	1.19	0.65	0.40
A27 (Right Turn into Yapton Lane)	0.69	0.41	4.87	0.85

- 7.7.8 The addition of the development results in an increase in queueing on all arm in both the AM and PM peak, most significantly on the minor arm in the AM peak, which in this scenario operates well over theoretical capacity at 1.19 RFC. It is noted however that as theoretical capacity was already breached significantly in the '2026 Do Nothing' Scenario, any slight increase in traffic as a result of the development will have an exponential impact on the RFC and queueing results produced by the Junctions 8 software. It is therefore not considered that the additional traffic from the development in this scenario would have a material impact on the operation of the junction.

- 7.7.9 The '2031 Do Nothing' scenario utilises the 2031 LP with MIT + Dev' scenario flows taken from the Tye Lane TA that includes for committed Local Plan developments and highways mitigation schemes up to 2031. As a result, the distribution of trips throughout the local area in the 2031 scenario is significantly different to prior distributions, with significantly different vehicle turning movements at the Yapton Lane / A27 junction as a result. The results of the junction modelling for this scenario can be seen in Table 7-17 below.

Table 7-17 Yapton Lane / A27 PICADY Results – 2031 Do Nothing

Arm	2031 Do Nothing			
	AM		PM	
	Q (Veh)	RFC	Q (Veh)	RFC
Yapton Lane	1.06	0.52	0.49	0.33
A27 (Right Turn into Yapton Lane)	0.40	0.28	2.76	0.74

- 7.7.10 In the '2031 Do Nothing' scenario, the junction operates within practical capacity on all arms both the AM and PM peak hours.

- 7.7.11 Adding the development flows onto the above scenario gives the '2031 Do Something' scenario, as can be seen in Table 7-18 below.

Table 7-18 Yapton Lane / A27 PICADY Results – 2031 Do Something

Arm	2031 Do Something			
	AM		PM	
	Q (Veh)	RFC	Q (Veh)	RFC
Yapton Lane	1.23	0.56	0.53	0.35
A27 (Right Turn into Yapton Lane)	0.42	9.61	3.26	0.78

- 7.7.12 In the '2031 Do Something' scenario, the junction operates within practical capacity on all arms both the AM and PM peak hours.

8 SUMMARY AND CONCLUSIONS

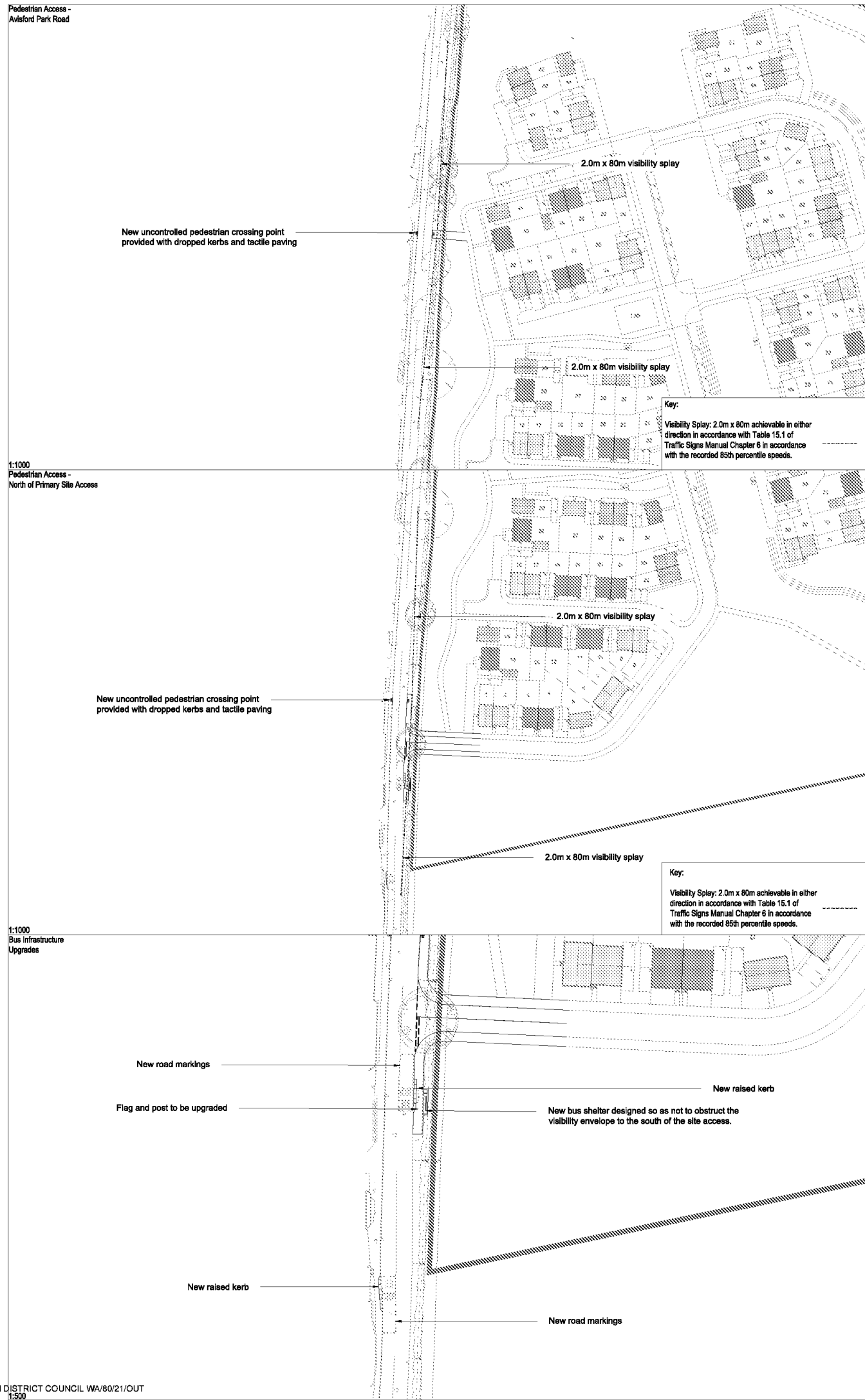
8.1 Summary

- 8.1.1 Newell Edwards have been appointed by Land Allocation Ltd. to prepare a Transport Assessment (TA) in support of a proposed residential development on land to the east of Yapton Lane, Walberton. The proposals comprise the construction of up to 75 dwellings on greenfield land, will be served by one point of vehicular access from Yapton Lane.
- 8.1.2 This TA has been prepared to inform pre – application discussions with the Local Highway Authority - West Sussex County Council and Highways England.
- 8.1.3 The TA presents a review of national and local policy documents. This includes the National Planning Policy Framework (2021); The Arun District Local Plan 2011-2031 (2018); The West Sussex Transport Plan 2011 – 2026 (2011) (LTP3); and the Arun District Council Parking Standards Supplementary Planning Document (SPD) (2020).
- 8.1.4 A review of the baseline highway conditions for the area surrounding the site has been carried out within this TA. There are several amenities and services within a 2km walking distance of the proposed development. This includes a Pre School, Primary School, Convenience Store, Post Office, Church, GP Surgery and Dental Surgery. The nearest bus stops are immediately adjacent to the site access and provide services to Arundel and Chichester, with additional services to Bognor Regis available from stops located approximately 150m from the access location.
- 8.1.5 An Automatic Traffic Count Survey was undertaken between the 7th of June and the 13th of June 2021, with full results attached at **Appendix B**. 85th percentile speeds of **37.7mph** and **39.8mph** in the northbound and southbound directions, respectively.
- 8.1.6 2.4m x 120m visibility can be achieved in both directions along Yapton Lane at the site access. This is in accordance with the Stopping Sight Distances (SSD's) stipulated within the Design Manual for Roads and Bridges and the Local Design Guide for the recorded 85th percentile speeds.
- 8.1.7 This TA sets out the trip rates and trip generation associated with the proposed development. The development is expected to generate 38 two-way vehicle trips in the AM Peak and 38 two-way vehicle trips in the PM Peak. This equates to an average of just over one vehicle arriving or departing once every two minutes in each peak period.
- 8.1.8 These vehicle trips have been distributed onto the highway network, with the distributions being approved by both WSCC and HE accordingly. Capacity modelling of the site access onto Yapton Lane and at the junction between Yapton Lane and the A27, demonstrating that the proposed development is not forecast to have a significant impact upon the operation of the local highway network.

8.2 Conclusion

- 8.2.1 In view of the above it is considered that the proposals will not generate unacceptable impacts on highways safety or capacity, the two grounds for which a recommendation for refusal is warranted under paragraph 111 of the NPPF (2021).

FIGURES / DRAWINGS



- ### Electronic Drawings
1. Where this drawing has been issued in electronic .dwg format it has been done so in good faith. Newwell Edwards do not take any responsibility for any inaccuracies in the electronic data, which should be checked against the paper (or .pdf) drawing issue. Any apparent discrepancies should be immediately reported to Newwell Edwards. The electronic .dwg file should not be assumed to be to scale and should not be used for 'overlaying', setting out or checking of any third party information. All dimensions should be taken from the paper (or .pdf) version of the drawing. Electronic drawings may contain third party information. jmgproup take no responsibility for this information, which should be checked against the originators paper drawing(s).
 2. All working dimensions to be checked on site.
 3. Do not scale.
 4. Any discrepancies between drawings of different scales, and between drawings and specification where appropriate to be notified to The Engineer for decision.
 5. Copyright reserved. This drawing may only be used for The Client and location specified in the title block. It may not be copied or disclosed to any third party without the prior written consent of Newwell Edwards.
 6. This drawing should only be used for construction if the drawing status is "Construction". Newwell Edwards take no responsibility for construction works undertaken to drawings which are not marked with this status.

P02	26.07.21	Revised following layout update	
P01	15.07.21	Revised following layout update	
Rev.	Date	Description	Dwn / Chk'd / Appl'd

S2 - Suitable for Information

Client: **Land Allocation Ltd**

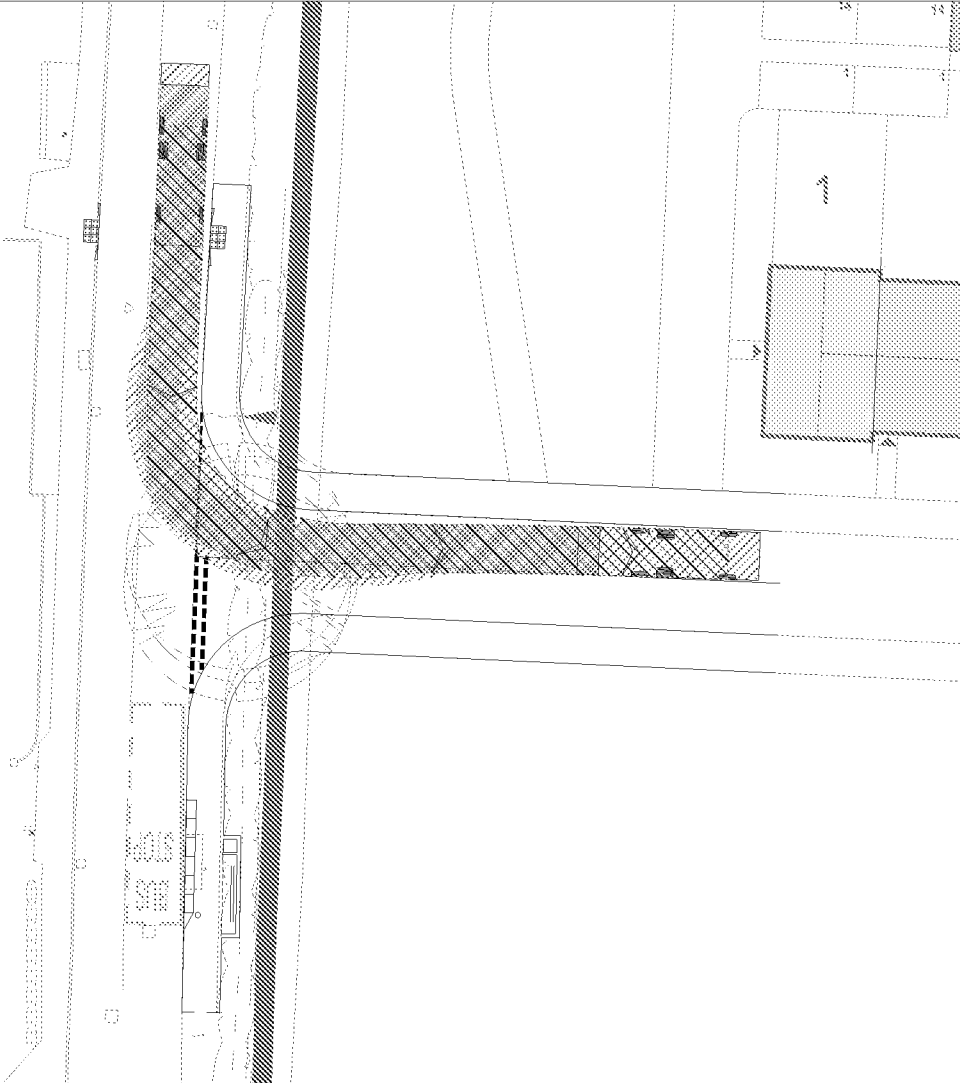
Yapton Lane, Walberton

Site Access General Arrangement

Class/colors: FI_60_20				
Scale @ A1: As Shown				

Project - Originator - Volume/System - Level/location - Type - Discipline - Number	Revision:
C86484- NE -66-XX-DR-C-2001	P02
Document/Drawing Number	

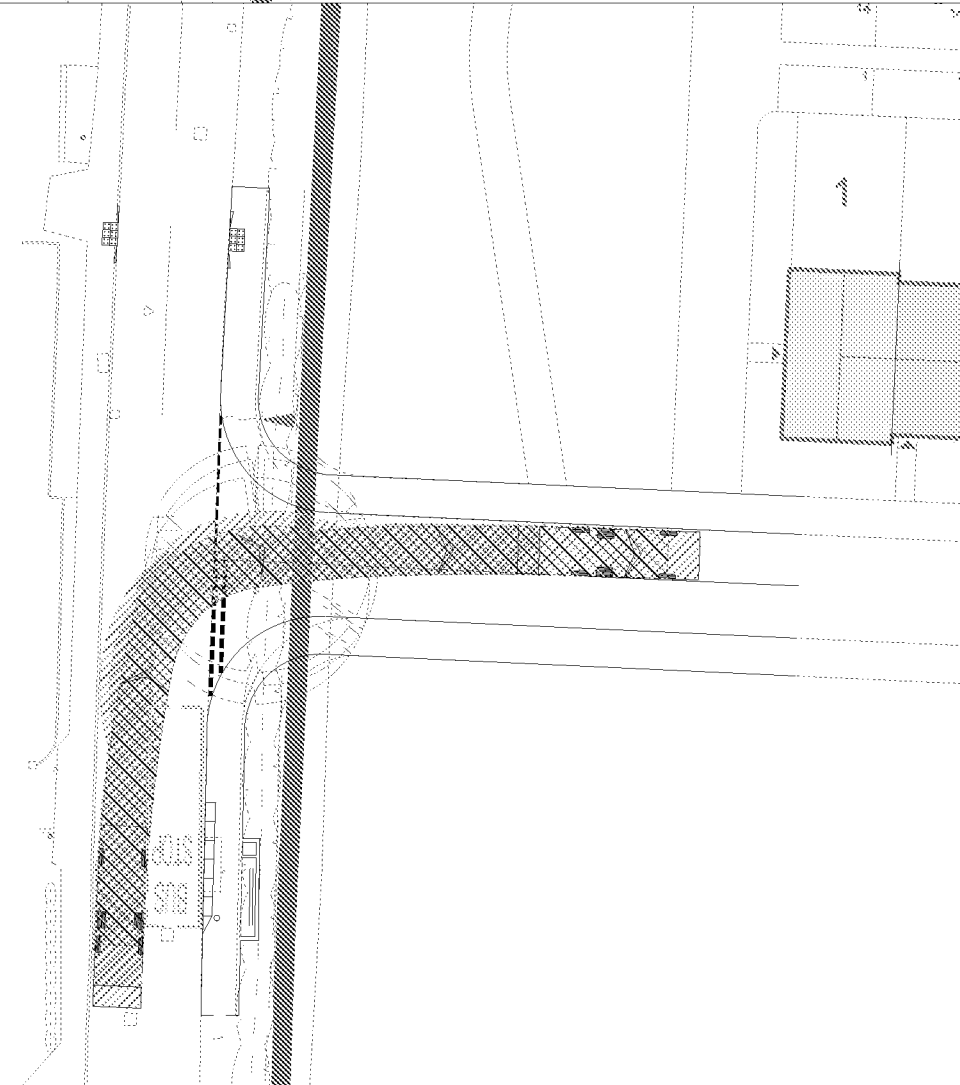
Left In



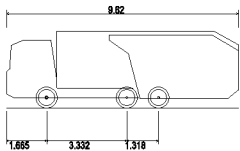
Left Out



Right In



Right Out



Phoenix 2-18W (with Elite 2 6x2RS chassis)
Overall Length 9.620m
Overall Width 2.530m
Overall Body Height 3.211m
Min Body Ground Clearance 0.416m
Track Width 2.530m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.800m

General Notes

- Where this drawing has been issued as electronic, the printer is not responsible for any inaccuracies in the electronic data, which should be checked against the paper (or pdf) drawing issue. Any apparent discrepancies should be immediately reported to Newell Edwards. The electronic file should not be assumed to be to scale and should not be used for 'overseeing', setting out or checking of any third party information. All dimensions should be taken from the paper (or pdf) version of the drawing. Electronic drawings may contain third party information; the printer takes no responsibility for this information, which should be checked against the originator's paper drawing(s).
- All working dimensions to be checked on site.
- Do not scale.
- Any discrepancies between drawings of different scales, and between drawings and specification where applicable to be notified to The Engineer for details.
- Copyright reserved. This drawing may only be used by The Client and should not be used by any third party without the prior written consent of Newell Edwards.
- This drawing should only be used for construction if the drawing status is "Construction". Newell Edwards take no responsibility for construction works undertaken to drawings which are not marked with this status.



Health & Safety Note

The details on this drawing have been prepared on the assumption that a competent contractor will be carrying out the works. If the contractor(s) considers that there is insufficient Health and Safety information on this drawing, this should immediately be brought to the attention of the designer.

HAZARD IDENTIFICATION BOX

This table is provided to assist the Principal Contractor to fulfil their obligations under the CDM Regulations 2015

Hazard Ref	Hazard Type Construction Control/Prevention	Hazard Description	Mitigation Measures/ Residual Risk
⚠			

Rev.	Date	Description	Drawn/Checked/Approved
------	------	-------------	------------------------

Submittal: S2 - Suitable for Information

Client: Land Allocation Ltd

Job: Yapton Lane, Walberton

Title: Refuse Swept Path Analysis

Classification: FL_60_20	Scale @ A1: 1:200	Logos: Newell Edwards, HAS, Construction, etc.
--------------------------	-------------------	--

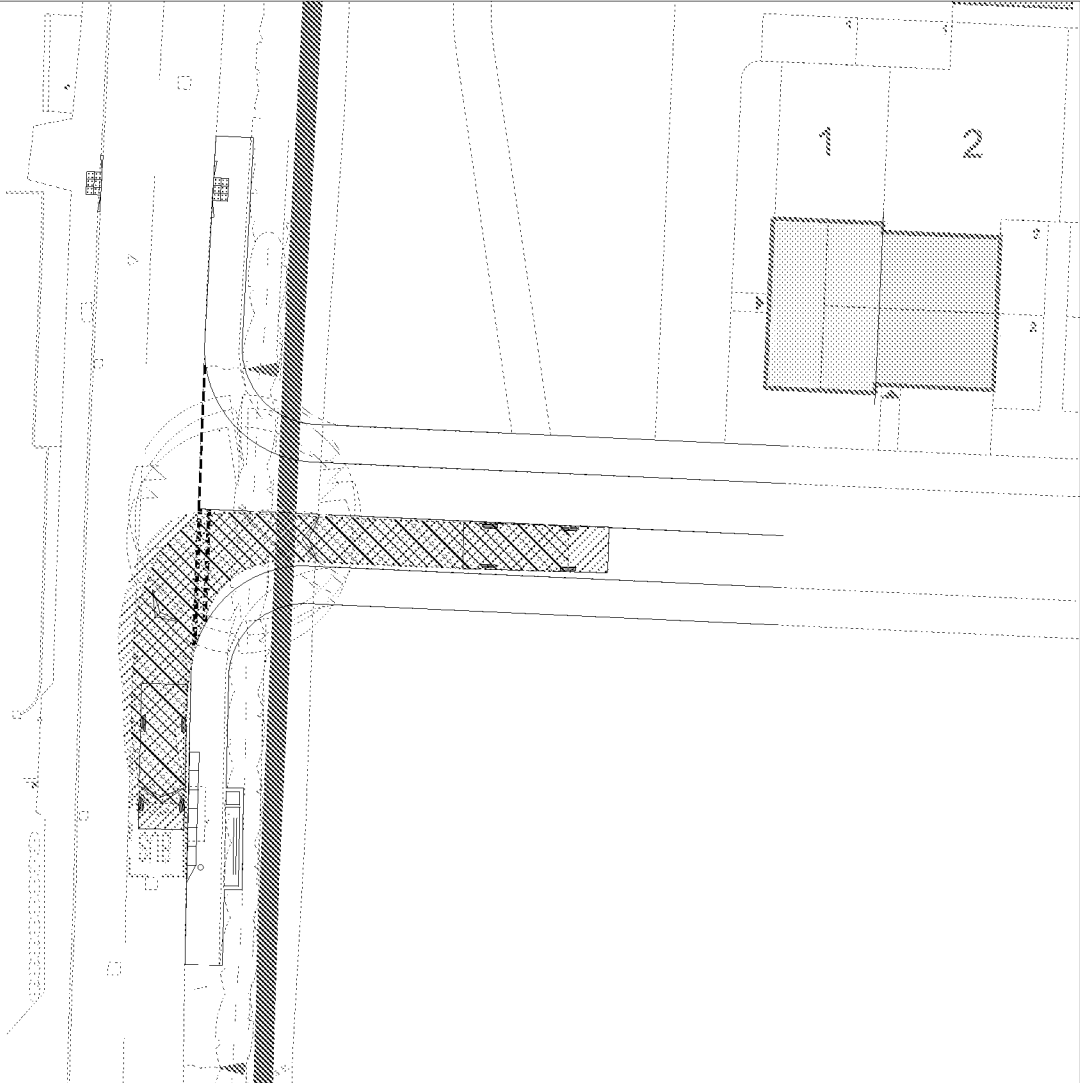
Project: Originator - Value/Status - Level/Location - Type - Classification - Number	Revision: -
C86484 - NE - 66 - XX - DR - C - 2002	

Document/Revision Number

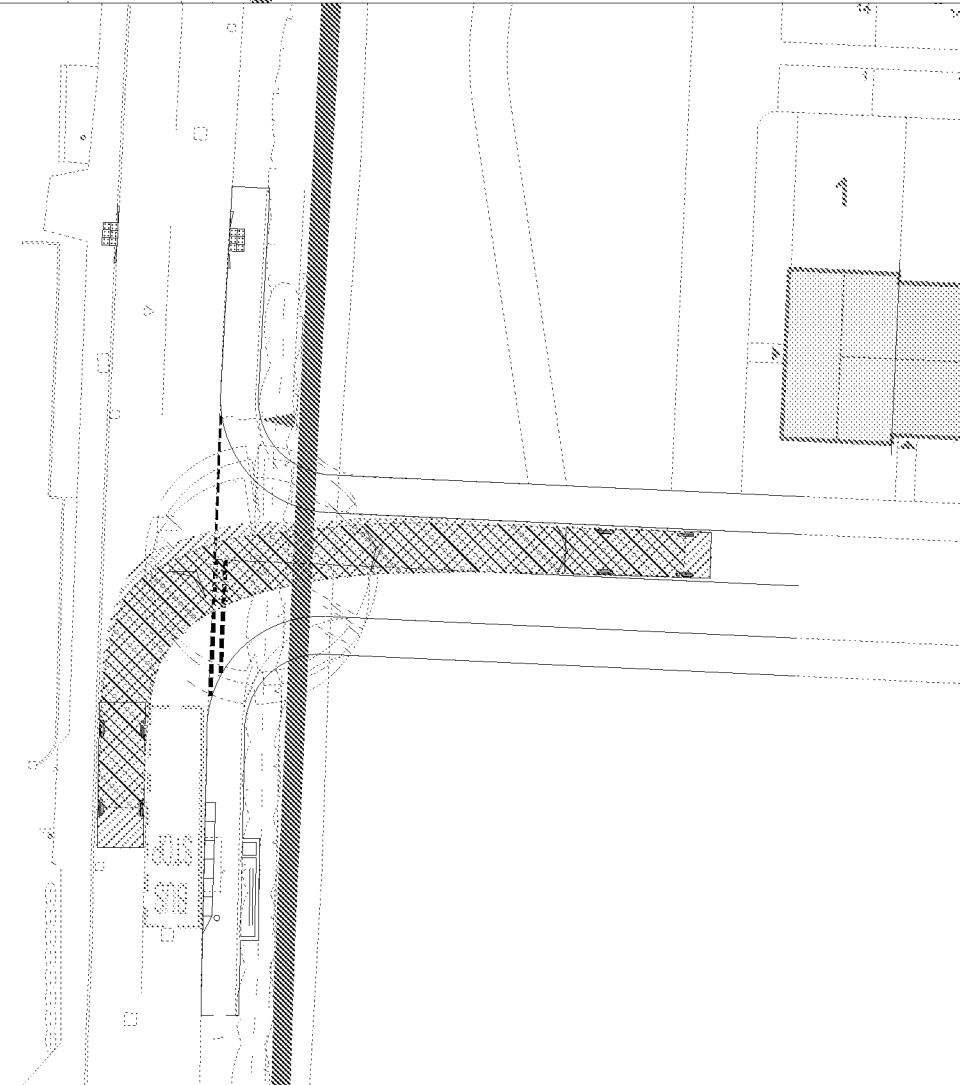
Left In



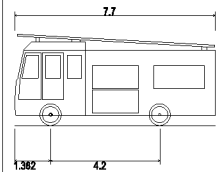
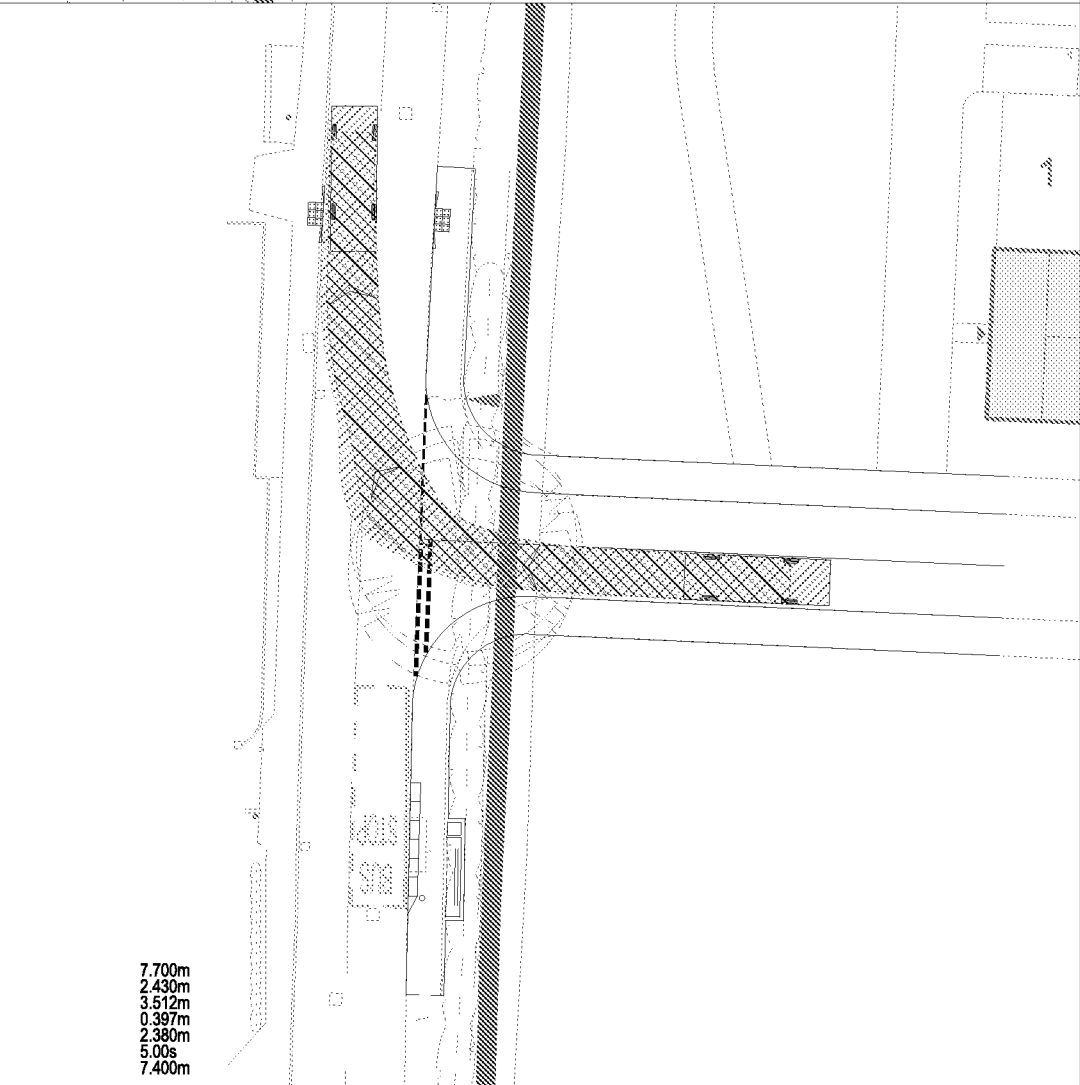
Left Out



Right In



Right Out



Dennis Sabre Fire Tender (LWB)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius

7.700m
2.430m
3.512m
0.397m
2.380m
5.00s
7.400m

General Notes

- Where this drawing has been issued in electronic (dmg) format it has been done so in print full. Newell Edwards do not take any responsibility for any inaccuracies in the electronic data, which should be checked against the paper (or pdf) drawing issue. Any apparent discrepancies should be immediately reported to Newell Edwards. This electronic (dmg) file should not be assumed to be to scale and should not be used for 'overlaying', setting out or checking of any third party information. All observations should be taken from the paper (or pdf) version of the drawing. Electronic drawings may contain third party information, including but not limited to, for this information, which should be checked against the original paper drawings.
- All working dimensions to be checked on site.
- Do not scale.
- Any discrepancies between drawings of different scales, and between drawings and specification where agreements to be notified to The Engineer for decision.
- Copyright reserved. This drawing may only be used for The Client and is not to be used in the site block. It may not be copied or disclosed to any third party without the prior written consent of Newell Edwards.
- This drawing should only be used for construction if the drawing status is 'Construction'. Newell Edwards take no responsibility for construction work undertaken to drawings which are not marked with this status.



Health & Safety Note

The details on this drawing have been prepared on the assumption that a competent contractor will be carrying out the works. If the contractor(s) considers that there is insufficient Health and Safety information on this drawing, this should immediately be brought to the attention of the designer.

HAZARD IDENTIFICATION BOX

This table is provided to assist the Principal Contractor to fulfil their obligations under the CDM Regulations 2015

Hazard Ref	Hazard Type Construction Description	Hazard Description	Mitigation Measures/ Residual Risk
1			



Rev.	Date	Description	Drawn/Checked/Approved
------	------	-------------	------------------------

Submittal:

S2 - Suitable for Information

Client:

Land Allocation Ltd

Job:

Yapton Lane, Walberton

Title:

Fire Tender Swept Path Analysis

Classification:

FL 60_20

Scale @ A1:

1:200

Project: Originator: Value/Station: Level/Location: Type: Discipline: Number:

C86484 - NE -66 -XX- DR -C -2003

Document/Revision Number

-

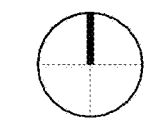
APPENDIX A: INDICATIVE LAYOUT



The scaling of this drawing cannot be assured

Revision	Date	Drn	Ckd
A	23.07.2021	AS	JC

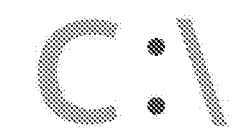
- SITE BOUNDARY
Area = 7.6 Hectares
- PROPOSED SITE ACCESS
- INDICATIVE DWELLINGS
- INDICATIVE PRIMARY STREET
- TRANSITION ZONE
- PRIVATE DRIVE
- PEDESTRIAN ROUTE
- EXISTING PLANTING
- PROPOSED PLANTING
- INFORMAL OPEN SPACE
- CENTRAL OPEN SPACE
- LEAP
- LAP
- HEALTH AND FITNESS SPACE
- INDICATIVE SUDE FEATURES
- REFUSE COLLECTION POINT



Project
**Walberton
Sussex**

Drawing Title
Indicative Site Layout

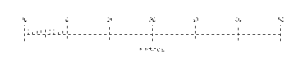
Date	Scale	Drawn by	Check by
28.10.2020	1:1250@A2	AS	JC
Project No	Drawing No	Revision	
CAL020920	MP-05	A	



Master Planning & Urban Design •
Architecture • Building Control •
Graphic Communication • Public
Engagement

clendon.co.uk

2 Bar Lane York YO1 6JH
01904 341408



APPENDIX B: ATC DATA

Walberton ATC, Yapton Lane

Produced by Streetwise Services Ltd.



Channel 1 - Northbound

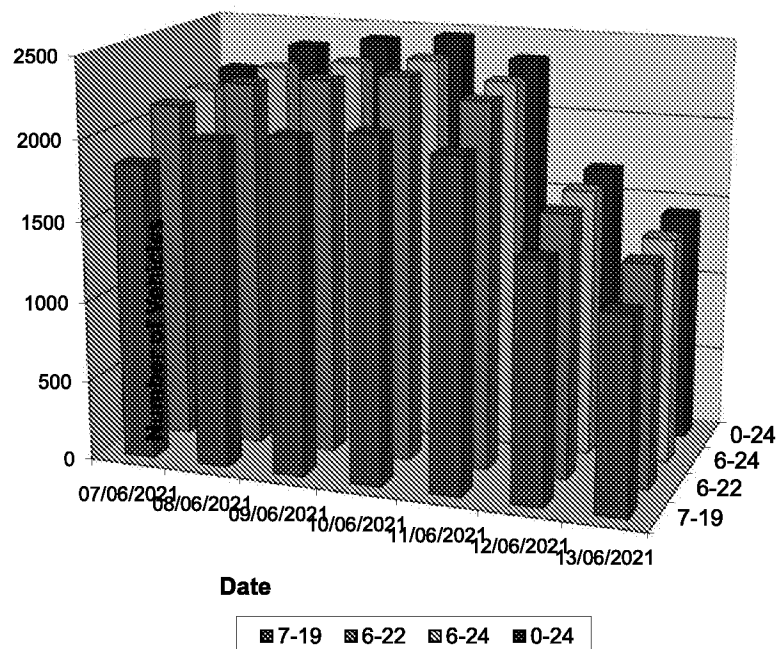
Vehicle Flow

Week 1

Hr Ending	07/06/2021 Monday	08/06/2021 Tuesday	09/06/2021 Wednesday	10/06/2021 Thursday	11/06/2021 Friday	12/06/2021 Saturday	13/06/2021 Sunday	5 Day Ave	7 Day Ave
1	0	2	3	2	2	4	5	2	3
2	2	1	2	6	2	4	4	3	3
3	4	6	6	5	2	1	2	5	4
4	1	2	4	2	1	0	1	2	2
5	14	10	10	13	9	2	2	11	9
6	32	44	47	39	44	17	15	41	34
7	139	117	111	116	92	41	30	115	92
8	251	256	235	233	227	80	52	240	191
9	239	283	273	306	284	114	103	277	229
10	172	224	219	208	194	174	132	203	189
11	125	140	165	171	134	201	140	147	154
12	124	136	125	132	167	159	128	137	139
13	107	156	149	180	147	151	131	148	146
14	135	109	136	133	148	118	134	132	130
15	130	149	147	143	153	115	96	144	133
16	162	151	150	165	186	80	82	163	139
17	166	164	204	182	160	101	70	175	150
18	144	166	169	163	142	102	78	157	138
19	85	88	100	106	97	85	70	95	90
20	67	66	72	69	65	54	49	68	63
21	33	38	43	37	36	28	49	37	38
22	33	34	29	33	30	28	33	32	31
23	20	16	18	23	19	17	19	19	19
24	2	4	9	2	11	10	7	6	6

7-19	1840	2022	2072	2122	2038	1480	1216	2019	1827
6-22	2112	2277	2337	2377	2262	1631	1377	2271	2052
6-24	2187	2362	2426	2469	2352	1666	1432	2359	2131

Vehicle Flow (Channel 1)



Walberton ATC, Yapton Lane

Produced by Streetwise Services Ltd.



Channel 1 - Northbound

Average Speed

Week 1

Hr Ending	07/06/2021 Monday	08/06/2021 Tuesday	09/06/2021 Wednesday	10/06/2021 Thursday	11/06/2021 Friday	12/06/2021 Saturday	13/06/2021 Sunday
1	-	43.0	31.3	43.0	46.8	38.0	38.0
2	45.5	48.0	51.8	44.2	43.0	44.9	35.5
3	43.6	40.1	38.8	36.0	40.5	28.0	30.5
4	33.0	46.8	38.0	38.0	43.0	-	23.0
5	36.8	38.2	36.2	33.0	36.3	38.0	35.5
6	39.3	36.5	38.1	37.1	37.8	36.2	34.7
7	34.0	34.5	34.7	34.4	33.2	35.9	35.2
8	32.7	31.9	31.2	31.4	32.2	34.5	35.0
9	30.6	31.3	26.2	30.5	30.5	34.4	34.2
10	30.1	30.1	22.2	29.9	27.3	32.3	33.2
11	31.4	29.1	24.8	27.2	30.2	30.2	31.8
12	31.8	31.0	26.7	29.4	28.4	31.2	32.9
13	31.3	31.8	31.3	30.4	29.2	31.3	32.6
14	31.6	32.2	33.1	31.6	29.0	30.8	31.9
15	32.4	31.3	28.9	31.4	29.0	33.3	34.2
16	31.7	32.2	27.9	30.8	29.2	32.6	32.0
17	32.7	30.7	25.9	31.9	28.8	32.0	33.8
18	32.4	34.1	25.8	32.0	30.6	33.9	35.1
19	32.0	33.5	32.6	33.6	32.8	32.6	32.8
20	33.6	31.9	30.7	32.3	32.2	34.2	33.3
21	34.8	32.7	32.1	33.4	35.9	33.4	31.4
22	33.6	32.6	34.4	31.5	31.9	32.3	34.9
23	32.5	34.1	35.4	33.7	36.0	33.7	33.0
24	46.8	34.2	35.2	33.0	35.7	35.0	32.3

10-12	31.8	30.0	25.6	28.2	28.2	30.7	32.3
13-15	31.3	31.8	31.3	31.1	31.1	31.1	31.1
0-24	32.2	31.9	28.6	31.2	30.4	32.5	33.2

7 Day Ave 31.4

85th Percentile

Hr Ending	07/06/2021 Monday	08/06/2021 Tuesday	09/06/2021 Wednesday	10/06/2021 Thursday	11/06/2021 Friday	12/06/2021 Saturday	13/06/2021 Sunday
1	-	43.6	33.9	43.6	55.7	48.1	43.8
2	48.7	48.6	56.5	56.2	48.9	56.2	48.3
3	56.0	55.8	48.4	43.9	48.7	28.9	33.2
4	33.6	55.8	38.3	38.8	43.5	-	23.5
5	43.3	43.8	43.2	38.0	43.4	43.5	38.3
6	43.3	43.8	43.2	43.5	43.1	43.1	38.3
7	38.8	38.6	43.6	43.9	38.8	43.8	43.0
8	38.0	39.0	33.4	38.4	38.5	43.4	43.5
9	38.8	33.9	33.4	38.7	38.8	43.5	38.2
10	33.8	38.2	28.7	33.5	33.6	38.5	38.9
11	38.7	38.7	33.3	33.5	33.8	38.2	33.6
12	38.0	39.0	33.6	33.5	33.0	38.3	38.8
13	38.4	38.2	38.2	38.4	33.2	38.1	38.9
14	38.9	38.5	38.2	38.4	33.1	38.6	38.3
15	38.8	38.1	33.6	38.3	33.1	38.2	43.5
16	38.4	39.0	33.1	38.1	33.3	38.9	38.1
17	39.0	38.7	33.5	38.2	33.1	38.1	43.6
18	38.9	38.0	33.9	39.0	38.0	38.4	43.4
19	38.1	38.6	38.3	38.1	38.5	38.3	39.0
20	38.9	38.1	38.8	38.4	38.7	38.9	43.1
21	43.4	43.1	43.4	43.4	43.5	43.8	38.9
22	43.5	38.8	43.3	43.5	38.8	38.3	48.6
23	38.8	43.3	48.9	43.2	43.1	38.7	38.3
24	55.6	38.0	43.6	43.5	43.2	38.3	38.1

10-12	38.9	38.3	33.8	33.3	33.7	38.1	38.5
13-15	38.3	38.3	33.3	33.3	33.3	33.3	33.3
0-24	38.3	38.3	33.1	38.5	38.4	38.3	39.0

7 Day Ave 37.7

Walberton ATC, Yapton Lane

Produced by Streetwise Services Ltd.



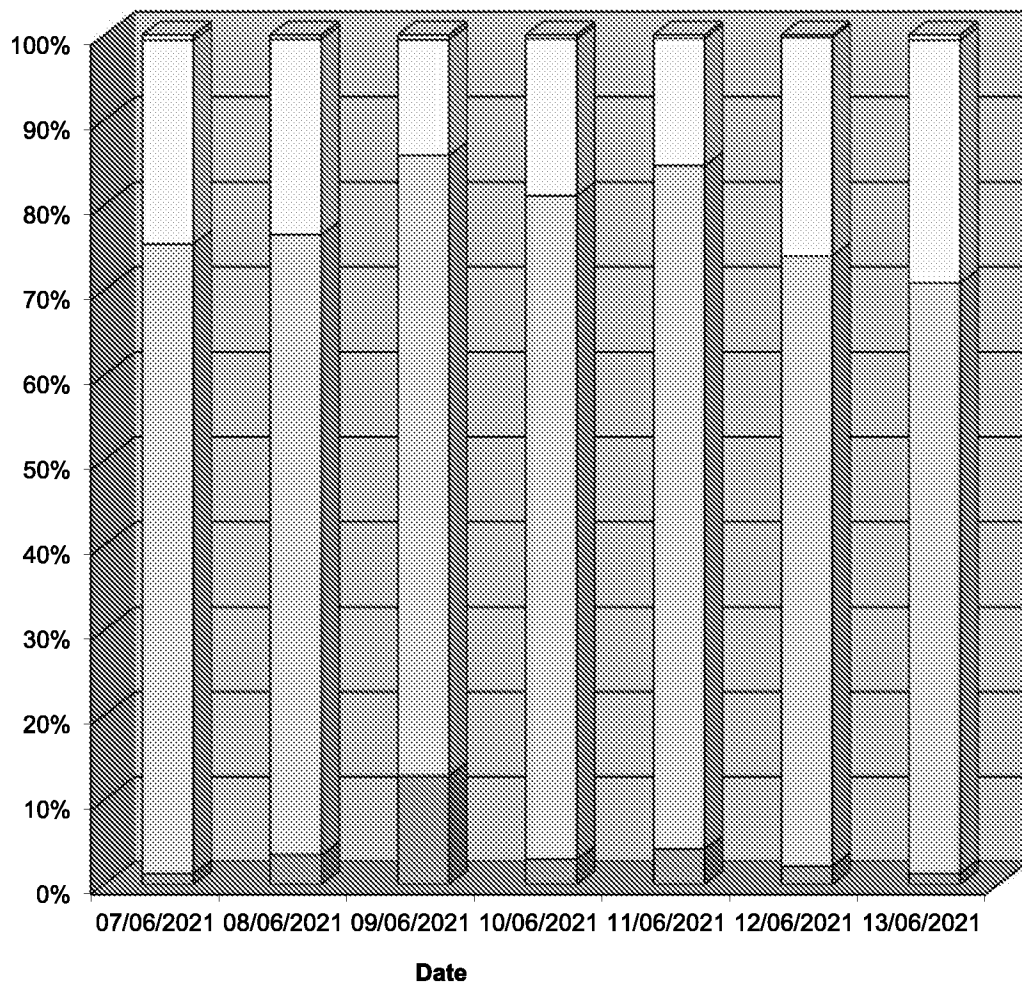
Channel 1 - Northbound

Speed Summary

Week 1

Speed (MPH)	07/06/2021 Monday	08/06/2021 Tuesday	09/06/2021 Wednesday	10/06/2021 Thursday	11/06/2021 Friday	12/06/2021 Saturday	13/06/2021 Sunday
0-20	29	83	311	74	99	37	19
21-35	1621	1724	1771	1928	1891	1211	995
36-50	523	543	330	456	352	433	409
51-100	14	12	14	11	10	5	9
TOTAL	2187	2382	2426	2469	2352	1886	1432

Speed Summary (MPH)



0-20 21-35 36-50 51-100

Walberton ATC, Yapton Lane

Produced by Streetwise Services Ltd.



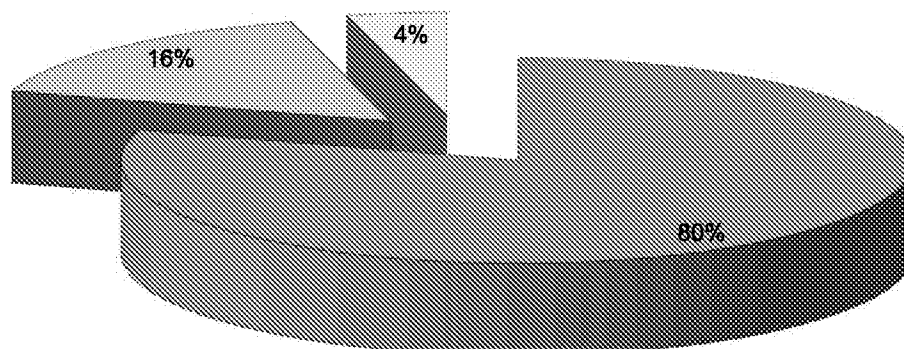
Channel 1 - Northbound

Vehicle Class

Week 1

Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
07/06/2021				
7-19	1428	344	68	1840
6-22	1827	389	96	2112
6-24	1557	389	98	2134
0-24	1684	396	107	2187
08/06/2021				
7-19	1557	404	61	2022
6-22	1751	439	87	2277
6-24	1785	443	90	2297
0-24	1814	452	96	2362
09/06/2021				
7-19	1640	370	62	2072
6-22	1824	405	98	2327
6-24	1855	432	103	2384
0-24	1899	415	112	2426
10/06/2021				
7-19	1695	376	61	2122
6-22	1866	413	98	2377
6-24	1887	415	100	2402
0-24	1929	432	108	2469
11/06/2021				
7-19	1613	373	53	2039
6-22	1769	418	75	2262
6-24	1785	423	78	2286
0-24	1838	433	81	2352
12/06/2021				
7-19	1305	148	27	1480
6-22	1440	168	33	1641
6-24	1455	168	35	1658
0-24	1482	164	40	1686
13/06/2021				
7-19	1092	90	34	1216
6-22	1219	105	53	1377
6-24	1237	113	55	1405
0-24	1257	116	59	1432
Average				
7-19	1474	391	52	1827
6-22	1642	332	77	2052
6-24	1653	335	80	2067
0-24	1700	344	86	2131

Total Vehicle Class Distribution



Walberton ATC, Yapton Lane

Produced by Streetwise Services Ltd.



Channel 2 - Southbound

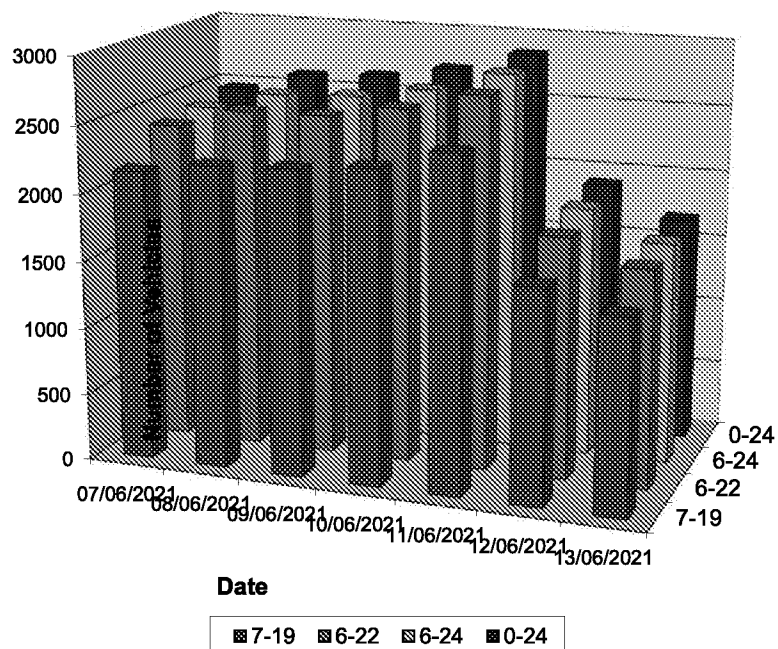
Vehicle Flow

Week 1

Hr Ending	07/06/2021 Monday	08/06/2021 Tuesday	09/06/2021 Wednesday	10/06/2021 Thursday	11/06/2021 Friday	12/06/2021 Saturday	13/06/2021 Sunday	5 Day Ave	7 Day Ave
1	4	4	10	9	9	15	11	7	8
2	11	4	6	9	4	5	8	7	7
3	3	8	3	1	5	5	4	4	4
4	3	3	10	9	1	2	2	5	4
5	7	14	11	11	11	8	4	11	9
6	20	18	16	23	19	15	9	19	17
7	49	47	46	66	65	25	13	55	44
8	146	147	149	195	159	69	32	159	128
9	169	164	161	192	171	92	57	171	144
10	129	154	152	164	176	127	114	155	145
11	131	153	143	139	141	144	146	141	142
12	133	164	131	136	147	166	141	142	145
13	170	168	167	180	177	166	196	172	175
14	141	129	160	150	145	136	162	145	148
15	164	182	203	183	216	139	99	190	189
16	225	234	226	241	244	152	132	234	208
17	256	287	275	256	369	136	120	289	243
18	318	303	309	320	345	131	133	319	266
19	176	155	188	158	174	122	103	170	154
20	93	127	113	124	121	79	73	116	104
21	53	64	72	65	57	66	50	62	61
22	33	50	39	58	50	38	42	46	44
23	26	17	30	22	32	42	21	25	27
24	8	10	15	11	26	28	14	14	16

7-19	2158	2240	2264	2314	2454	1580	1435	2268	2065
5-22	2385	2538	2534	2627	2757	1785	1613	2566	2319
								2806	2362
0-24	2468	2606	2635	2722	2864	1908	1686	2659	2413

Vehicle Flow (Channel 2)



Walberton ATC, Yapton Lane

Produced by Streetwise Services Ltd.



Channel 2 - Southbound

Average Speed

Week 1

Hr Ending	07/06/2021 Monday	08/06/2021 Tuesday	09/06/2021 Wednesday	10/06/2021 Thursday	11/06/2021 Friday	12/06/2021 Saturday	13/06/2021 Sunday
1	31.8	38.6	40.0	39.7	43.8	46.2	45.3
2	49.6	48.0	40.5	41.9	49.2	41.5	46.4
3	53.0	39.6	36.3	43.0	43.5	40.0	44.9
4	36.3	41.3	38.0	40.8	43.0	40.5	44.2
5	35.1	40.7	42.1	37.1	36.6	38.0	44.9
6	40.1	35.2	38.9	39.3	38.7	36.3	34.1
7	36.7	38.3	37.8	36.4	35.5	38.7	38.6
8	36.2	34.8	34.7	32.4	33.8	36.0	36.6
9	33.1	34.1	31.1	33.2	34.2	35.0	37.3
10	33.9	33.1	31.9	32.9	32.0	33.7	35.0
11	32.0	32.5	31.2	29.8	32.8	31.4	33.7
12	32.3	33.0	31.0	32.6	32.4	32.4	34.6
13	32.7	33.1	32.9	31.7	32.2	32.5	34.4
14	32.8	33.2	32.5	32.6	33.3	34.5	33.8
15	33.7	33.5	32.0	32.9	33.0	34.3	34.3
16	33.8	32.4	32.9	32.0	32.6	35.4	34.4
17	33.3	32.9	33.0	32.6	32.5	34.3	35.1
18	33.6	33.6	33.0	34.2	32.9	35.0	34.1
19	34.8	35.9	34.3	34.4	35.8	36.0	34.7
20	35.4	36.4	35.2	35.4	35.0	35.4	35.8
21	37.2	36.6	35.7	35.7	35.7	36.1	36.0
22	34.0	36.7	34.1	34.6	34.5	33.7	36.5
23	39.8	41.5	37.8	40.3	38.5	37.6	35.7
24	33.6	39.0	41.3	40.0	38.5	38.7	42.1

10-12	32.2	32.7	31.7	31.2	32.8	31.8	34.2
13-15	32.1	33.1	32.2	32.3	32.3	32.5	34.5
0-24	34.0	34.0	33.2	33.3	33.5	34.5	35.0

7 Day Ave 33.8

85th Percentile

Hr Ending	07/06/2021 Monday	08/06/2021 Tuesday	09/06/2021 Wednesday	10/06/2021 Thursday	11/06/2021 Friday	12/06/2021 Saturday	13/06/2021 Sunday
1	38.1	56.4	48.2	43.9	56.2	65.6	65.5
2	55.5	65.9	48.0	48.1	56.0	55.8	48.7
3	55.8	43.3	38.7	43.6	55.7	48.6	56.3
4	43.5	43.3	38.5	48.3	43.2	48.8	55.8
5	43.9	48.2	48.6	43.1	48.3	43.5	56.2
6	43.5	43.5	43.2	48.2	48.8	48.2	38.4
7	43.4	43.2	48.5	43.1	43.1	48.9	48.8
8	43.8	43.6	43.7	38.4	38.5	43.4	43.7
9	38.8	38.4	38.8	39.0	43.8	43.3	43.4
10	43.7	38.9	38.4	38.5	38.8	38.8	43.1
11	38.7	38.5	38.9	33.5	38.3	38.2	43.4
12	39.0	38.2	38.7	39.0	39.0	38.4	43.3
13	38.3	38.7	38.1	38.2	38.8	38.2	38.7
14	38.5	38.7	38.6	38.4	38.7	43.9	43.3
15	38.4	38.6	38.7	38.4	38.9	38.6	38.8
16	38.7	38.8	38.0	38.3	38.9	43.4	38.2
17	38.2	38.2	38.4	38.5	38.4	43.4	43.6
18	38.4	38.8	38.4	38.1	38.1	43.9	44.0
19	43.5	43.2	43.3	38.5	44.0	43.6	43.2
20	43.8	44.0	44.0	44.0	43.8	43.9	43.9
21	48.5	43.1	43.8	43.6	43.7	43.5	43.1
22	38.4	48.1	43.7	43.9	43.4	43.3	44.0
23	48.5	48.8	48.4	48.7	48.0	43.9	43.6
24	38.2	48.4	43.7	48.4	48.2	55.8	56.1

10-12	38.8	38.8	38.3	38.7	38.2	38.3	43.8
13-15	38.7	38.7	38.7	38.7	38.7	38.7	43.8
0-24	38.7	38.1	38.4	38.8	38.4	43.3	43.2

7 Day Ave 39.8

Walberton ATC, Yapton Lane

Produced by Streetwise Services Ltd.



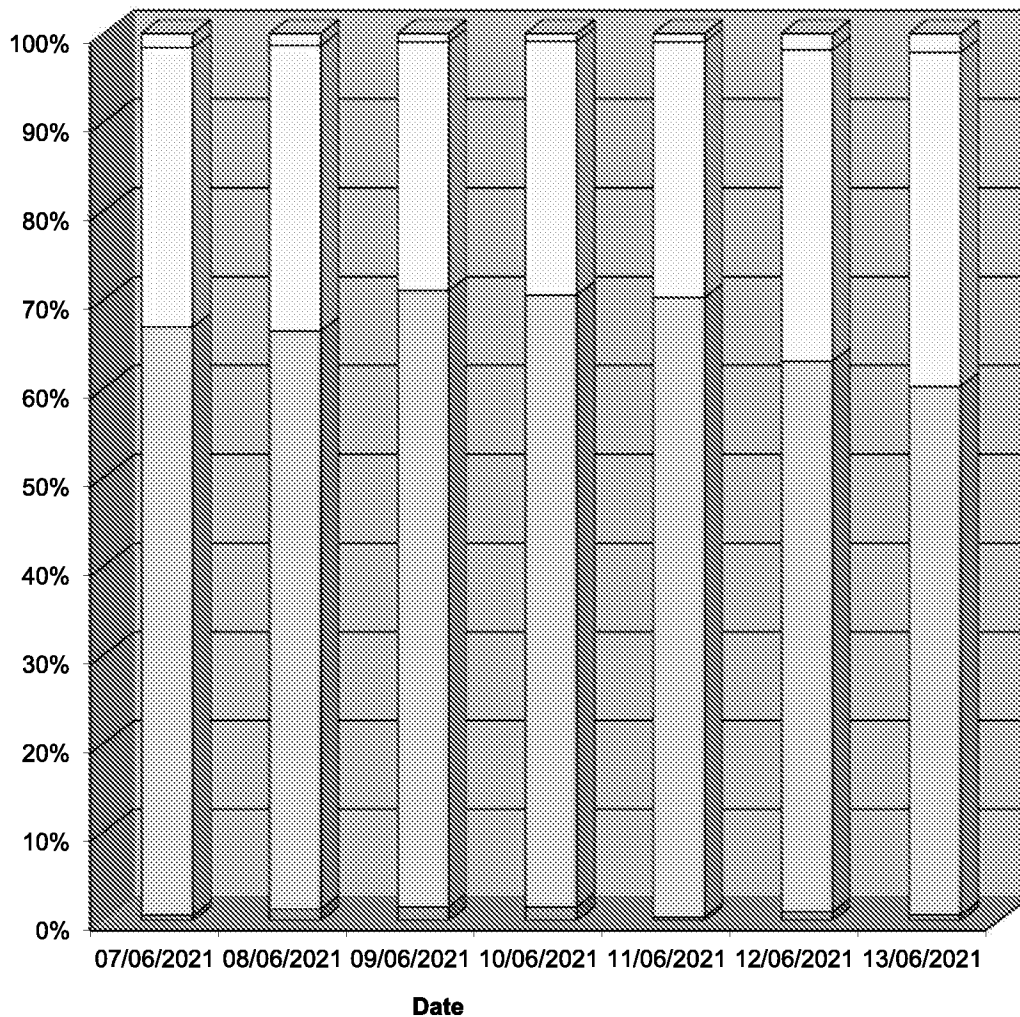
Channel 2 - Southbound

Speed Summary

Week 1

Speed (MPH)	07/06/2021 Monday	08/06/2021 Tuesday	09/06/2021 Wednesday	10/06/2021 Thursday	11/06/2021 Friday	12/06/2021 Saturday	13/06/2021 Sunday
0-20	15	35	41	42	11	19	11
21-35	1637	1698	1831	1878	2002	1185	1005
36-50	777	838	738	778	824	669	634
51-100	39	35	25	24	27	35	36
TOTAL	2468	2606	2635	2722	2864	1908	1686

Speed Summary (MPH)



0-20 21-35 36-50 51-100

Walberton ATC, Yapton Lane

Produced by Streetwise Services Ltd.



Channel 2 - Southbound

Vehicle Class

Week 1

Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
07/06/2021				
7-19	1832	471	55	2358
6-22	1818	505	63	2386
5-24	1833	508	64	2405
0-24	1882	514	72	2468
08/06/2021				
7-19	1710	477	53	2240
6-22	1845	514	69	2428
5-24	1855	515	71	2441
0-24	2005	523	78	2606
09/06/2021				
7-19	1730	474	60	2264
6-22	1938	518	78	2534
5-24	1973	522	83	2578
0-24	2017	528	90	2635
10/06/2021				
7-19	1762	497	55	2314
6-22	2007	540	80	2627
5-24	2034	545	81	2660
0-24	2071	559	92	2722
11/06/2021				
7-19	1889	515	60	2464
6-22	2107	569	81	2757
5-24	2155	573	86	2814
0-24	2182	584	98	2864
12/06/2021				
7-19	1360	180	40	1580
6-22	1530	208	52	1790
5-24	1563	218	54	1835
0-24	1617	228	63	1908
13/06/2021				
7-19	1253	148	34	1435
6-22	1403	166	44	1613
5-24	1434	175	44	1653
0-24	1466	174	46	1686
Average				
7-19	1819	395	51	2065
6-22	1821	431	67	2319
5-24	1857	438	69	2364
0-24	1891	444	77	2413

Total Vehicle Class Distribution

