

THE NORFOLK ESTATE

PROPOSED RESIDENTIAL DEVELOPMENT:

LAND AT TORTINGTON, ARUNDEL

TRANSPORT ASSESSMENT

REPORT REF. NO 173483-04

PROJECT NO. 173483

NOVEMBER 2020

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DOCUMENT CONTROL SHEET

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Draft for project team review	MRH	KM	DRAFT ONLY	27/10/2020
-	Final for submission	MRH	DH	KM	26/11/2020

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1.0 INTRODUCTION

1.1 Ardent Consulting Engineers (ACE) is instructed by The Norfolk Estate to advise on the Highways & Transportation aspects of the proposed residential development of Land at Tortington, Ford Road, Arundel. The proposals comprise a total of 90 dwellings (C3 Land Use Class).

1.2 This Transport Assessment (TA) has been produced to accompany an outline planning application submission to Arun District Council (ADC). The local highway authority is West Sussex County Council (WSCC).

1.3 Pre-application consultation has been undertaken with both ADC and WSCC for the scheme in general, and specifically with regard to scoping of the transport study and content of this TA with WSCC. This has involved the preparation of a Transport Scoping Note (TSN) which was submitted to ADC and WSCC. The pre-application response and the WSCC consultation response dated July 2020 are included at **Appendix A**.

1.4 Following this introduction, this report is structured as follows: -

- **Section 2.0** considers the existing situation;
- **Section 3.0** outlines the development proposals;
- **Section 4.0** sets out the predicted trip generation and modal split associated with the proposed residential development;
- **Section 5.0** considers the traffic impact and sets out the development impact analysis, including junction capacity modelling; and
- **Section 6.0** provides a summary and conclusions.

2.0 EXISTING SITUATION

Location

2.1 The site is situated at the southern side of Arundel and is bound by: Ford Road to the east; Priory Lane to the south; and the rear boundaries of existing residential properties fronting onto Stewards Rise and Dalloway Road to the north and northwest.

2.2 The location of the site is shown in **Plate 2.1** below.

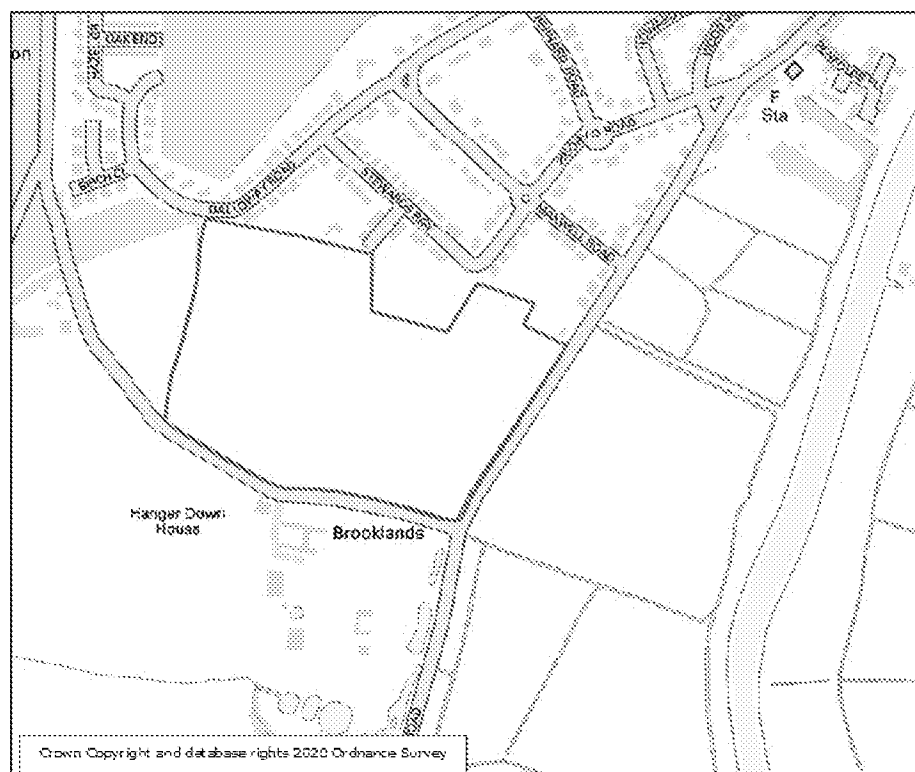


Plate 2.1: Site Location (red outline)

Existing Use

2.3 The site is currently open fields and undeveloped, with vehicular access provided at the southern boundary on Priory Lane.

Surrounding Highway Network

- 2.4 Ford Road is a single carriageway rural road subject to the national speed limit of 60mph along the site frontage, changing to 30mph at the boundary of Arundel on the north-eastern corner of the site. It is approximately 6.8m wide, incorporates soft verges on both sides with no footways, and is unlit.
- 2.5 Priory Lane forms the minor arm of a priority "T" junction with Ford Road at the southern corner of the site, extending west and north towards Tortington Lane. It is around 3.5-4.3m wide up to the Brooklands Country Guest House access junction, which is located to the south of the site. It narrows to around 2.6-3.0m wide beyond the access point, has no footways and the route is unlit.

Vehicle Speeds

- 2.6 To help inform the access design, traffic surveys were undertaken recording existing vehicle speeds and volumes on the site frontage with Ford Road (ATCs located either side of the proposed site access junction).
- 2.7 The traffic surveys were undertaken by way of Automatic Traffic Count (ATC) surveys over the course of a week (7 days) to record vehicle volumes and types, as well as recording vehicle speeds. The surveys were undertaken Tuesday 19th to Monday 25th June 2018 and the full results are attached at **Appendix B** and show that the observed 85th percentile dry weather speed (i.e. that exceeded by only 15% of vehicles) in each direction was as follows:
- northbound: 46.3mph, 74.5kph; and
 - southbound: 51.3mph, 82.6kph.
- 2.8 TA 22/81 states that wet weather speeds on single carriageway roads can be derived by deducting 4kph (2.5mph) from speeds observed in dry weather. It was observed that during the period of the ATCs the

weather was dry and so applying this correction gives 85thile wet weather speeds of 70.5kph northbound and 78.6kph southbound.

Walking/Cycling

2.9 There are no footways provided on Priory Road or Ford Road in the vicinity of the site however residential roads to the north benefit from pedestrian footways. These provide connections between existing residential areas in the vicinity as well as local facilities in the surrounding area and to the north within the centre of Arundel.

2.10 In addition, there are a number of cycle routes that are being considered as part of the WSCC Walking and Cycling Strategy 2016-2026 in the local area, which include:

- Route 83: Ford Road – Arundel to Climping. Off-road Shared path
- Route 85: South of Priory Lane – A27 Arundel Bypass. Off-road shared path
- Route 322: Ford Road – Arundel to Ford Station. Off road shared path

2.11 The proposed cycle routes in the vicinity of the site are shown in **Plate 2.2**.

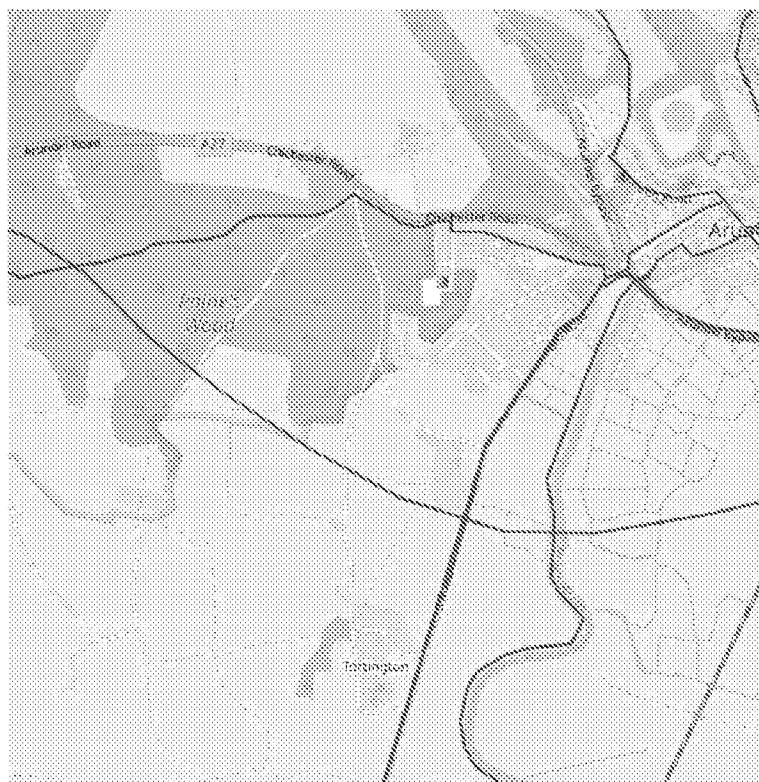


Plate 2.2: WSCC Proposed Cycle Routes (red lines)

Public Transport

- 2.12 Bus services in the local area are currently provided from a bus stop on Pearson Road approximately 600m (7-10-minute walk) from the site via the pedestrian access on Dalloway Road. The route to the stops is lit with continuous footways on either side of the road. This stop is served by the number 9 bus from Arundel to Shoreham on an hourly basis between 09:10 and 18:10 on weekdays. There are no services on Sundays or Bank Holidays.

Accident Data Review

- 2.13 A review of the website "crashmap.co.uk" has been undertaken in order to identify whether there are any safety concerns in respect to the site access point. This review indicates that within the most recent available 5-year period available (2015–2019) there have been a total of three accidents in the vicinity of the site, all on Ford Road. The accidents are marked on **Plate 2.3**.

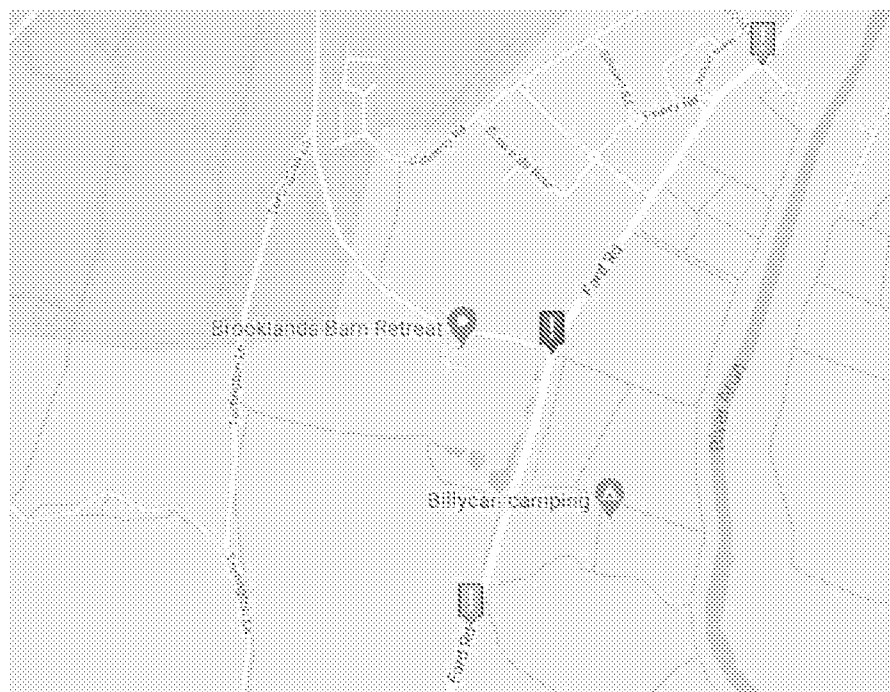


Plate 2.3: Personal Injury Accidents (crashmap.co.uk)

- 2.14 The most recent accident occurred on Wednesday, July 04, 2018 at 22:17. The slight injury accident involved two vehicles colliding on a straight section of Ford Road.
- 2.15 The serious injury accident on Friday, January 15, 2016 at 13:26 occurred due to a car travelling southbound on Ford Road taking the corner wide and causing a car travelling northbound to veer off the road and collide with a fence.
- 2.16 The final slight injury accident on Saturday, July 30, 2016 at 12:40 occurred due to a car turning right out of Penfolds Place into the side of a cyclist traveling southbound on Ford Road.
- 2.17 In light of this information, we consider that there is no existing safety concern in the immediate vicinity of the site.

3.0 PROPOSED DEVELOPMENT

- 3.1 It is proposed to redevelop the site to provide a total of 90 residential units. The proposed layout is attached at **Appendix C**.

Access

- 3.2 During representations for the site in connection with the Neighbourhood Plan and allocation of the site for residential development, ACE conducted a review of potential site access options.
- 3.3 It was concluded that there were a range of potential options available, however based on the scale of proposals and the local context, the option preferred by WSCC Highway Officers is the provision of the main vehicular access from Ford Road by way of a new priority "T" junction.
- 3.4 The preliminary design is shown on **ACE Drawing 173483-002**. The internal carriageway will be 6m wide and the junction will have corner radii of 10m in order to accommodate refuse and larger delivery vehicles.
- 3.5 A pedestrian/cycle route, which will also provide emergency secondary access is provided on the northern boundary, linking the site with Dalloway Road. This access improves pedestrian connectivity and permeability between the site and the existing residential areas to the north. This secondary access is also shown on **ACE Drawing 173483-002**.
- 3.6 To the north/east of the scheme pedestrian route links are also provided onto Ford Road at the northern boundary of the site, as well as onto High Ridge Close and onto Priory Lane at the south-west boundary. Provision of these routes ensures permeability of the scheme and accommodates the anticipated desire lines of both residents within the site, and those in the local area.

- 3.7 A Stage 1 Road Safety Audit which is attached at **Appendix D** has been undertaken which raised no concerns. Stage 2/3 Road Safety Audits will be undertaken at a suitable time as the design progresses.

Visibility requirements

- 3.8 The visibility requirements for the main access have adopted the standard Design Manual for Roads and Bridges (DMRB) stopping sight distance requirements, applicable to the recorded speeds, in-line with the DMRB desirable minimum standard, as set out below based on the speeds set out above:

- Visibility Splay to the south: 129m (46.3mph)
- Visibility Splay to the north: 153m (51.3mph)

- 3.9 TA 22/81 states that wet weather speeds on single carriageway roads can be derived by deducting 4kph (2.5mph) from speeds observed in dry weather. It was observed that during the period of the ATCs the weather was dry, however this reduction has not been applied to ensure a robust assessment.

- 3.10 Visibility splays commensurate to the above, are shown on ACE Drawing **173483-002** showing a 3.0m "X" distance (distance measured back from the carriageway edge for a vehicle waiting to emerge from the minor arm) and "Y" distance (the distance measured along the main carriageway) visibility splays of 153m are available to the left (looking north) and 129m to the right (looking south).

- 3.11 The proposed access arrangement and required/achievable visibility splays have been discussed and agreed in principle with Highway Officers at WSCC, as set out in the Correspondence at **Appendix A**.

- 3.12 Consideration of speed calming in the vicinity of the site was discussed in detail with highway officers during pre-application discussions, however a change in speed limit either at the junction of Priory Lane or the site access, would not be in-line with WSCC

technical guidance. However, the applicant is willing to continue discussions with WSCC/Arun DC on the opportunity for any speed calming measures to be provided in the vicinity of the site access on Ford Road.

Internal layout

Roads

- 3.13 The access and internal road layout has been designed utilising the WSCC Design Guide for residential roads, which largely mirrors Manual For the Streets. As this application is outline, detail of the internal layout will be provided in a subsequent Reserved Matters application, however relevant design guidance as if the layout were to be adopted has been followed as closely as possible in order to provide a suitable internal layout arrangement to serve the proposed dwellings.
- 3.14 In accordance with pre-application advice, the internal layout of the access road has been amended to avoid all Root Protection Areas within the site, with further detail provided within the Arboricultural Assessment which accompanies the application.
- 3.15 From the access point to Ford Road, the main spine road of 6m wide and 2m footway on both sides, extends through the site. Secondary roads 4.8m in width lead from the spine road and tertiary roads 4.2m in width, and connect the remainder of the dwellings on the site.
- 3.16 Suitable turning heads have been incorporated into the layout in order to facilitate refuse collection, with refuse collection points incorporated where appropriate in order to minimise wheeling distances of refuse bins to a waiting vehicle.
- 3.17 Forward visibility and visibility at junctions within the site have been considered using 2m x 20m splays at a private drive, 2.4m x 22m

splays at junctions in accordance with MfS, and necessary visibility can be achieved within the layout design.

Parking provision

- 3.18 The development has adopted ADC parking standards as set out in the Arun Parking Standards SPD (January 2020) specifically Table 3.1 for parking zone 1.
- 3.19 The ADC standards provide parking standards based on form of the dwelling as well as the location of a proposed development:
- 1 bed unit - 2 space per unit
 - 2 bed unit - 2 spaces per units
 - 3 bed unit - 2 spaces per unit
 - 4+ bed units - 3 spaces per unit
- 3.20 Visitor parking provision will be provided at 0.2 spaces per dwelling outlined within the standards.
- 3.21 Electric Vehicle Charging Points (EVCP) will be provided in line with table 2.2 of the ADC parking standards, with all houses with a garage providing active EVCP and 30% of all other units providing active EVCP.

4.0 TRIP GENERATION AND MODAL SPLIT

Introduction

- 4.1 This section considers the potential trip generation associated with a 90 residential dwellings (C3 Use Class) scheme.
- 4.2 Potential trip generation for the application site has been assessed using “Residential – Mixed Private/Affordable Housing” category of the TRICS (v7.7.1) database adopting the following selection parameters:
- Sites located in England (excluding Greater London);
 - Sites with a similar number of dwellings (40 – 200 units);
 - Similar car ownership for the area; and
 - Located in an Edge of Town or Suburban Area.
- 4.3 A total of 15 sites were selected (in line with the above criteria) and further details of these are provided within **Appendix E**.
- 4.4 Adopting the trip rates derived from the TRICS database, we set out the proposed trip rates and subsequent trips based on a 90-dwelling scheme within **Tables 4.1 & 4.2** below.

Table 4.1 – Proposed Trip Rates

Trip Rates per dwelling	Weekday Morning Peak (08:00-09:00)			Weekday Evening Peak (17:00-18:00)			Weekday 12 hour (07:00-19:00)		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Vehicle	0.114	0.344	0.458	0.327	0.161	0.488	2.102	2.185	4.287
Public Transport	0.002	0.036	0.038	0.025	0.007	0.037	0.164	0.174	0.338
Cyclists	0.004	0.016	0.02	0.01	0.006	0.016	0.063	0.069	0.132
Pedestrian	0.051	0.177	0.228	0.072	0.04	0.112	0.681	0.691	1.372
Total People	0.196	0.8	0.996	0.568	0.266	0.834	3.801	4.003	7.804

Table 4.2 – Proposed Trip Generation

90 Dwellings	Weekday Morning Peak (08:00-09:00)			Weekday Evening Peak (17:00-18:00)			Weekday 12 hour (07:00-19:00)		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Vehicle	10	31	41	29	14	44	189	197	386
Public Transport	0	3	3	2	1	3	15	16	30
Cyclists	0	1	2	1	1	1	6	6	12
Pedestrian	5	16	21	6	4	10	61	62	123
Total People	18	72	90	51	24	75	342	360	702

4.5 As can be seen from the above tables there are expected to be a total of 41 vehicle trips in the AM peak hour, or approximately one every minute and a half. There is expected to be a total of 44 vehicle trips in the PM peak hour or approximately one every minute and 20 seconds.

5.0 TRAFFIC IMPACT AND CAPACITY ANALYSIS

5.1 Junction capacity modelling of the access design has been undertaken during the AM and PM network peak hours as identified from traffic survey information using the PICADY module of the Junctions 9 modelling program.

5.2 In line with the WSCC Pre-application advice, traffic flows from the Ford planning application reference F/4/20/PL transport assessment have been utilised for the purpose of modelling the access junction. We have considered the AM and PM network peak hours of 0800-0900 and 1700-1800 respectively obtained from the TA. The TA flows were also used as a basis for the distribution of traffic to and from the site. These flows are presented on the flow diagrams attached at **Appendix F**.

Table 5.1: Summary of results of JUNCTIONS9 PICADY capacity assessment of development site access junction (OneHour flow profile)

Manoeuvre	2028 Weekday am peak hour				2028 Weekday pm peak hour			
	Base Case		Development Case		Base Case		Development Case	
	RFC	Queue (PCU)	RFC	Queue (PCU)	RFC	Queue (PCU)	RFC	Queue (PCU)
Left + right turn out of site (B-AC)	-	-	0.08	0.1	-	-	0.04	0.0
Right turn into site and ahead (C-AB)	-	-	0.01	0.0	-	-	0.05	0.1
Junction Delay (secs)	-		0.37		-		0.35	

5.3 The junction capacity modelling indicates that the preliminary junction design (T-junction) would operate well within capacity in a future year scenario of 2028 with the anticipated development traffic for a scheme of 90 dwellings.

5.4 The PICADY modelling output is attached at **Appendix G**.

- 5.5 In light of the small uplift in vehicular traffic associated with the proposals, the increase in traffic on local junctions beyond the site access arrangements will be negligible, which has been agreed in principle with Highway Officers at WSCC.

Summary

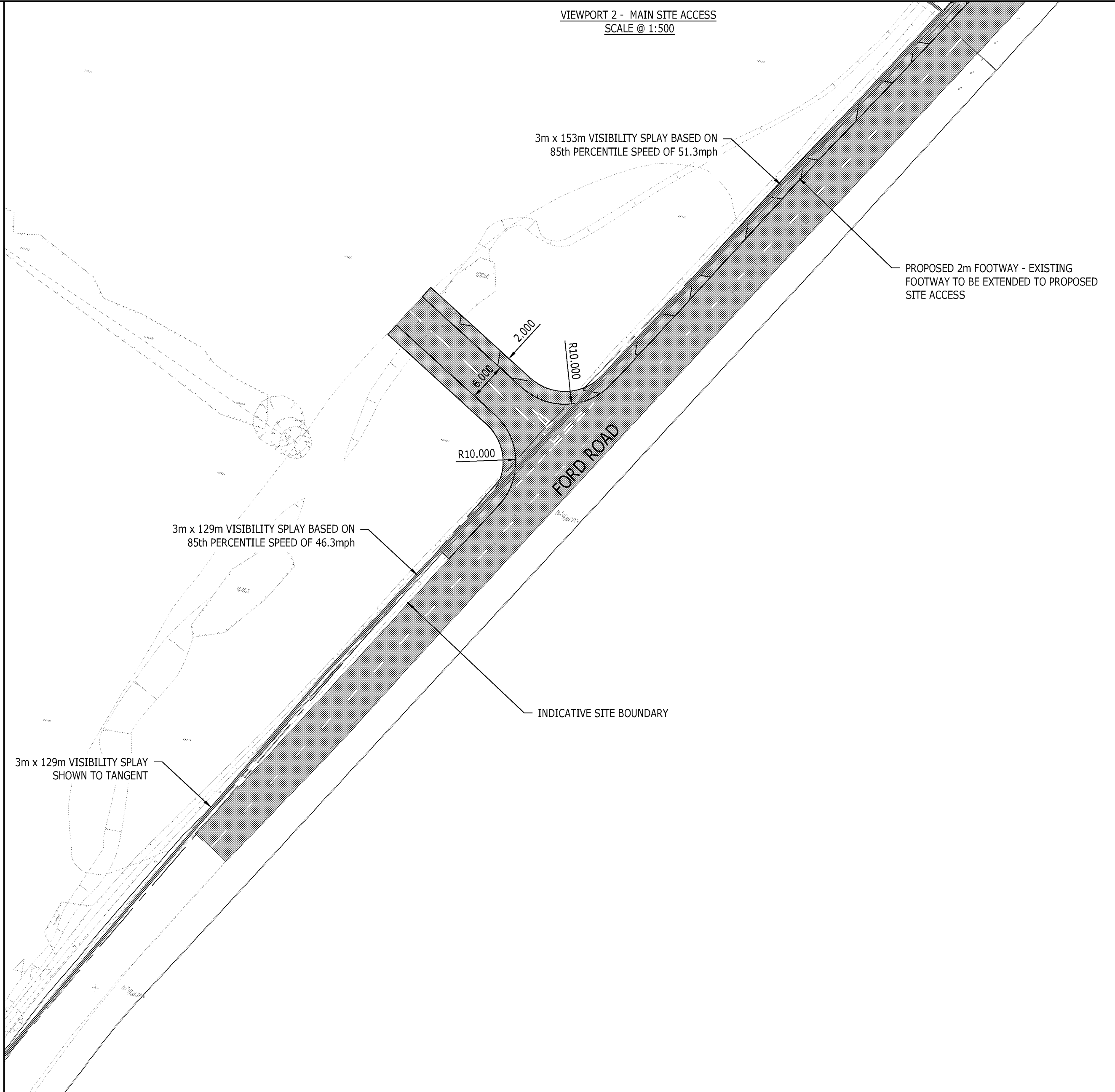
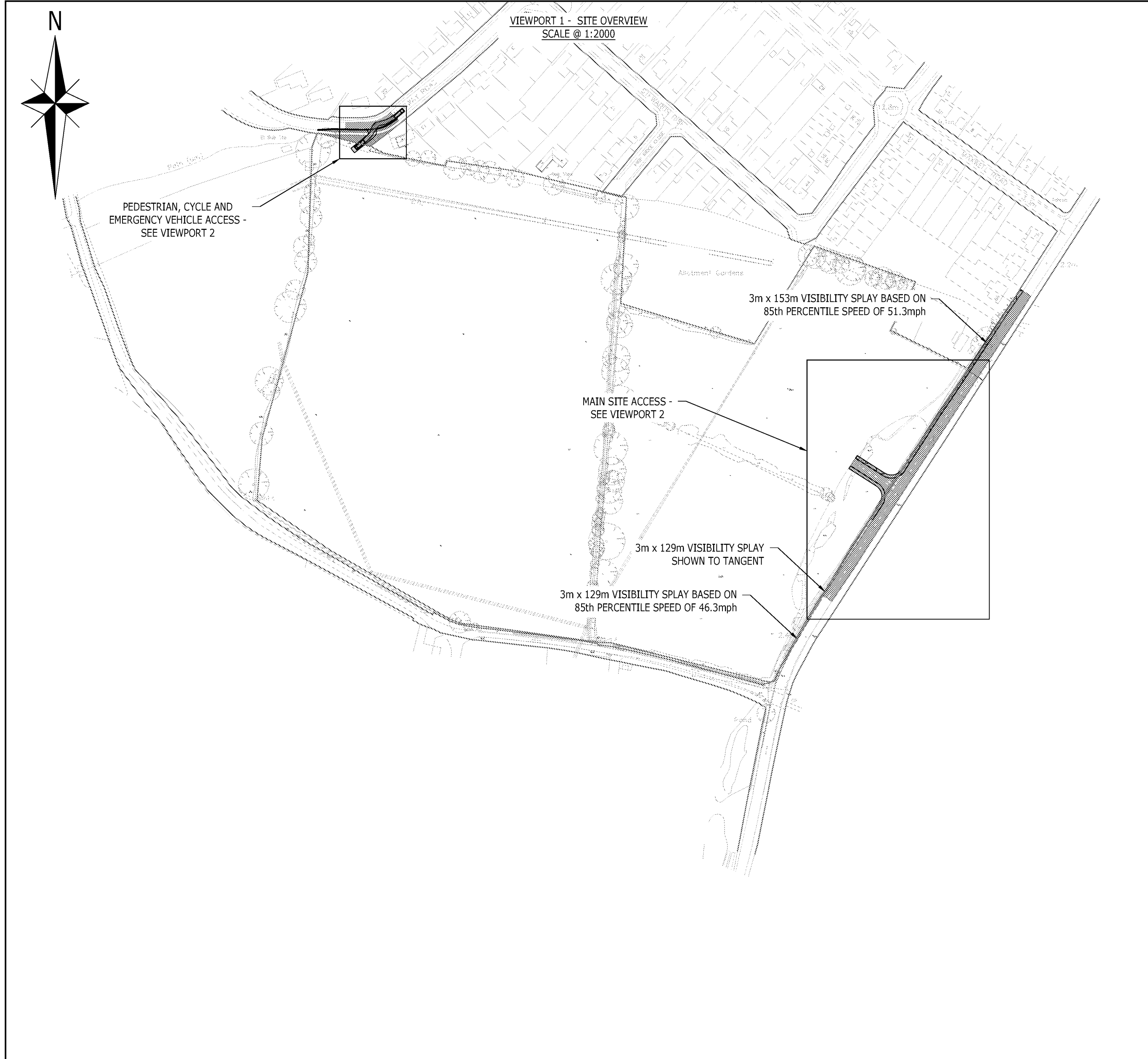
- 5.6 Junction capacity modelling has been undertaken using the Junctions 9 modelling suite. As set out above, the impact of the development is negligible in regards to the operation of the local road network whilst junction capacity modelling of the site access junction has demonstrated that the proposed improvements proposed to the junction as part of the proposals will satisfactorily accommodate the level of development proposed at the site.

6.0 CONCLUSIONS

- 6.1 It is proposed to develop the land at Tortington on the southern fringes of Arundel, West Sussex for 90 residential dwellings.
- 6.2 The scope of the transport assessment was considered during pre-application discussions with WSCC Highways. A TSN was prepared to set out the preliminary site access arrangements, which was reviewed by Highway Officers at WSCC, with this feedback being incorporated into this TA.
- 6.3 The site is well located within walking distance of local services in Arundel, is within walking distance to bus stops served by routes providing a connection to the centre of Arundel and Shoreham.
- 6.4 Access is proposed via a priority junction arrangement with Ford Road. The access design has been the subject of pre-application consultation with ADC and WSCC, with modifications incorporated in order to reflect the feedback provided.
- 6.5 We have considered the potential trip generation of the proposals and utilised worst-case trip rates from the analysis using TRICS as appropriate. This approach was agreed with ADC and WSCC at pre-application stage.
- 6.6 The preliminary access design was the subject of junction capacity modelling to consider the impact of the potential trip generation of the proposals on the Site Access/ Ford Road junction. This analysis found that the junction would operate satisfactorily with ample space capacity during peak periods in both the future 2020 and 2025 future year scenarios.
- 6.7 A Stage 1 Road Safety Audit has been undertaken which raised no concerns.

- 6.8 The internal layout has been designed utilising WSCC design guidance and design parameters. The layout has been tested for safety parameters such as visibility splays, as well as operational parameters such as refuse and fire access, and incorporates suitable features as appropriate to serve the site with turning heads incorporated where appropriate to minimise bin wheeling distances and facilitate movement within the site.
- 6.9 On site car parking spaces including visitor spaces, is provided in-line with relevant standards. This incorporates a mix of on-plot parking, garage parking and parking courts. An element of visitor parking provision has also been incorporated with on-street bays provided in places too.
- 6.10 Having fully considered highways/transport matters, we consider that there are no reasons to object to the application on highways/transportation grounds.

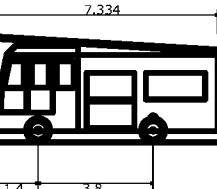
Drawings



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2. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
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4. ALL DIMENSIONS, LEVELS AND SURVEY GRID CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORKS.
5. HIGHWAY BOUNDARY INTERPRETED FROM DATA PROVIDED BY SAVILLS.
6. SITE BOUNDARY INTERPRETED FROM PLAN PROVIDED BY SAVILLS 26/11/2020.
7. LAYOUT SUBJECT TO TOPOGRAPHICAL SURVEY, HIGHWAY AUTHORITY APPROVAL, SWEEP PATH AND JUNCTION CAPACITY ANALYSIS WHERE APPROPRIATE.

- KEY:
- INDICATIVE SITE BOUNDARY
 - HIGHWAY BOUNDARY (SEE NOTE 5)
 - VISIBILITY SPLAY
 - ACE PROPOSED
 - ACE PROPOSED FOOTWAY

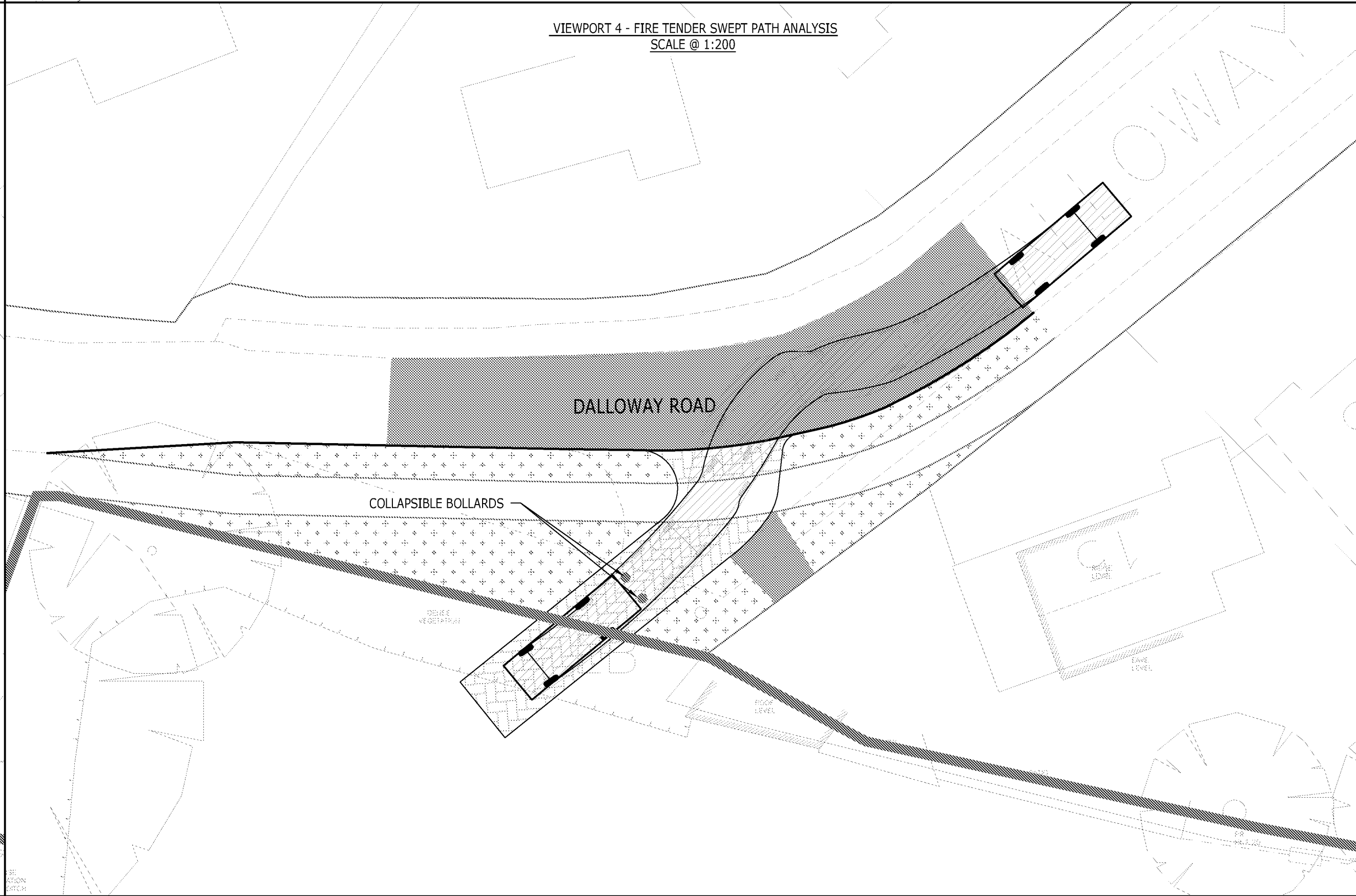
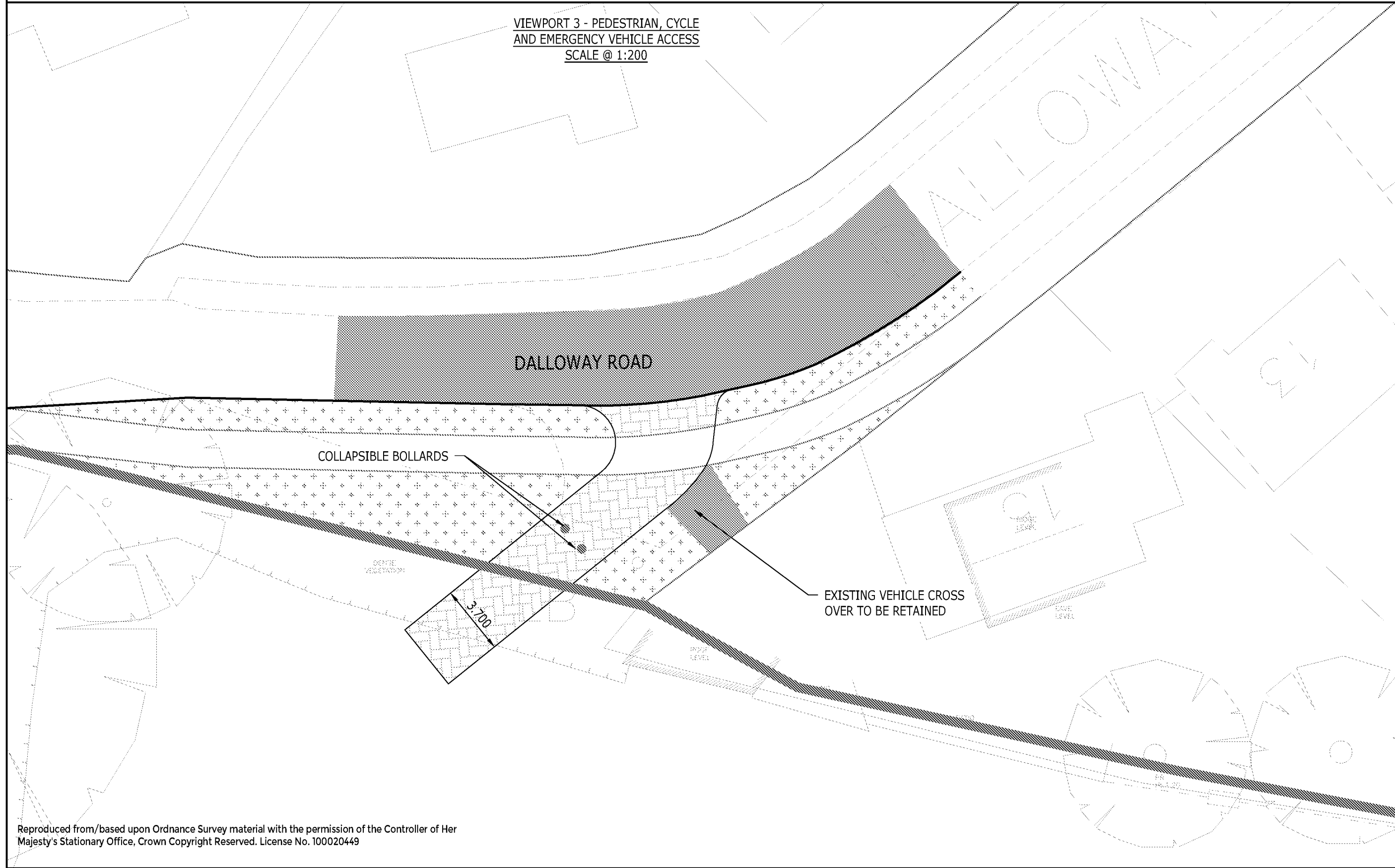
VEHICLE SPECIFICATION:



Fire Tender	7.334m
Overall Length	2.266m
Overall Width	3.495m
Overall Body Height	0.360m
Min Body Ground Clearance	2.266m
Track Width	5.30s
Lock to lock time	8.000m
Kerb to Kerb Turning Radius	

FOR INFORMATION ONLY

PRELIMINARY



D	AMENDED RED LINE	MRH	DH	KM	26.11.20
C	REMOVED TRAFFIC CALMING	MRH	DH	KM	23.10.20
B	FORD ROAD 40MPH / EMERGENCY ACCESS UPDATE	MRH	MRH	KM	08.10.20
A	VISIBILITY UPDATED, 30mph / BUS STOPS REMOVED	DV	DV	KM	08.06.20

Rev	Description	Drn	Chk	App	Date
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worksafe
consultant

SSIP



Client

NORFOLK ESTATE

Project Title:
LAND AT TORTINGTON, ARUNDEL

Drawing Title:
SITE ACCESS ARRANGEMENT

A1 Scale	Date	Designed by
AS SHOWN	APRIL 2020	ADS
Drawn by	Checked by	Approved by
MRH	DH	KM

Drawing Number	173483-002	Rev	D
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Appendix A



Arun District Council
Arun Civic Centre
Maltravers Road
Littlehampton
West Sussex BN17 5LF
Planning & Building Control General Enquiries
Tel: (01903) 737756 Fax: (01903) 730442
Dx: 57406 Littlehampton
Minicom: 01903 732765
e-mail: planning@arun.gov.uk
website: www.arun.gov.uk/planning

Guy Dixon
Savills
Mocatta House
Trafalgar Place
Brighton
BN1 4DU

Date: 7th July 2020

Please ask for: Michael Eastham
Tel: 01903 737772

Your Ref:
Our Ref: PAA/35/20/

Dear Mr Dixon,

Pre-Application Advice

Residential development of 90 dwellings.
Land at Ford Road Arundel

I write regarding the above matter and your enquiry received on 14th April 2020.

DESCRIPTION OF PROPOSED DEVELOPMENT

From the details submitted, I understand that you propose to submit an outline planning application for mixed-use development on 9.81 hectares of land at Ford Lane, including 90 dwellings on 3.9 hectares of the site. The proposal would include market and affordable housing, the provision of a Local Equipped Area for Play (LEAP), land for a community building and the provision of allotments to be located adjacent to those that are already present to the north of the site. The vehicular access to the site would be from Ford Road.

In your covering letter you provide a list of what you want views on including the principle of achieving residential development on this site; views on the proposed access onto Ford Road; an indication as to whether the indicative design and layout would be acceptable; the policy on the clustering of affordable housing units; whether the indicative mix for affordable housing is acceptable; and feedback from the Council's Arboricultural Officer on the proposed indicative masterplan layout in light of the initial tree survey and assessment work provided. All of these issues are addressed in the letter below.

DESCRIPTION OF SITE

The site is located to the south west of Arundel and comprises of medium and small sized fields used for arable and pasture with larger arable fields to the south; and it is bordered by mature trees, hedgerows and post and wire fencing. The topography of the site slopes south east from 30 metres AOD in the north western corner to 3 metres AOD in the south eastern corner. The site is primarily within Flood Zone 1, with an area of Flood Zones 2 and 3 running along the eastern boundary alongside Ford Road.

The site is bordered to the north by the allotments and the settlement boundary of Arundel (comprising Maxwell Road, Priory Road, Stewards Rise, High Ridge Close and Dalloway Road). The north western boundary of the site adjoins an area of ancient and semi-natural woodland. Current access to the site is obtained via field gateways on Priory Lane along the southern boundary of the site. The southern boundary of the site abuts the northern extent of Tortington Augustinian Priory and ponds, a Scheduled Ancient Monument; which incorporates Tortington Priory Barn which is a Grade II* listed building. Ford Road, a main access route between the town and the south coast, forms the eastern boundary to the site and provides a direct link between the A27 and the A259. The site is adjacent to a defined gap between settlements on its eastern boundary. The site is bounded to the west by Tortington Common and a Public Right of Way (PRoW).

DESCRIPTION OF LOCALITY

The area is rural in character with intermittent neighbouring properties and the South Downs National Park to the north and north-west respectively. The site is approximately 1.5km from the centre of Arundel, where a good range of shops and services are present. With regard to connectivity, the site is 2km to the north of Ford railway station, and 1.8km west of Arundel railway station; there are a number of bus stops present in the neighbouring residential area to the north, and access to the primary east-west vehicular route along the south coast (the A27) is approximately 800 metres to the north east of the site. The Grade I listed Arundel Castle and associated Grade II* listed park and gardens lie 1.3km north-east of the site. Arundel Conservation Area lies approximately 800 metres to the north west of the site.

PLANNING ISSUES

The following issues have been identified for consideration.

Principle
Housing Supply
Design
Access, Movement and Parking
Neighbour Amenity
Affordable Housing
Flooding/Drainage
Protected Trees
Open Space Provision
Contamination
Biodiversity and Protected Species
Crime
Listed Building(s)
Conservation Area
Archaeology
Light Pollution
Noise Pollution
Infrastructure Provision

COMMENT ON SITE HISTORY

RELEVANT POLICIES - the following policies are considered relevant to your proposal:

Arun District Local Plan 2011-2031

AHSP2

AH SP2 Affordable Housing

CSP1

C SP1 Countryside

DDM1

D DM1 Aspects of form and design quality

<u>DDM2</u>	D DM2 Internal space standards
<u>DSP1</u>	D SP1 Design
<u>ECCDM1</u>	ECC DM1 Renewable Energy
<u>ECCSP1</u>	ECC SP1 Adapting to Climate Change
<u>ECCSP2</u>	ECC SP2 Energy and climate change mitigation
<u>ENVDM4</u>	ENV DM4 Protection of trees
<u>ENVDM3</u>	ENV DM3 Biodiversity Opportunity Areas
<u>ENVDM5</u>	ENV DM5 Development and biodiversity
<u>HERDM6</u>	HER DM6 Sites of Archaeological Interest
<u>LANDM1</u>	LAN DM1 Protection of landscape character
<u>LANDM2</u>	LAN DM2 The Setting of Arundel
<u>TDM1</u>	T DM1 Sustainable Travel and Public Rights of Way
<u>OSRDM1</u>	Protection of open space, outdoor sport, comm& rec facilities
<u>QEDM1</u>	QE DM1 Noise Pollution
<u>QEDM3</u>	QE DM3 Air Pollution
<u>SDSP1</u>	SD SP1 Sustainable Development
<u>SDSP2</u>	SD SP2 Built-up Area Boundary
<u>SKILLSPP1</u>	SKILLS SP1 Employment and Skills
<u>TELSP1</u>	TEL SP1 Strategic delivery of telecomms infrastructure
<u>TSP1</u>	T SP1 Transport and Development
<u>WDM2</u>	W DM2 Flood Risk
<u>WDM3</u>	W DM3 Sustainable Urban Drainage Systems

<u>Arundel Neighbourhood Plan 2018-2031 AR1</u>	Arundel Built Up Area Boundary
<u>Arundel Neighbourhood Plan 2018-2031 AR2</u>	Land Off Ford Road
<u>Arundel Neighbourhood Plan 2014 POLICY1:</u>	The Presumption in Favour of Sustainable Development
<u>Arundel Neighbourhood Plan 2014 POLICY 2:</u>	A Spatial Plan for the Town
<u>Arundel Neighbourhood Plan 2014 POLICY 3:</u>	Housing Supply
<u>Arundel Neighbourhood Plan 2014 POLICY 4:</u>	Housing Site Allocations
<u>Arundel Neighbourhood Plan 2014 POLICY 6:</u>	Transport, Access & Car Parking

Planning Policy Guidance:

NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NPPDG	National Design Guide

Supplementary Guidance:

SPD11	Arun Parking Standards 2020
SPD12	Open Space, Playing Pitches & Indoor & Built Sports Facilities

PRINCIPLE

This is a pre-application enquiry for the proposed residential development of 90 dwellings on Land at Ford Road, Arundel (PAA/35/20). An Illustrative Masterplan (Drawing No. IM001 Rev. 4) has been submitted which illustrates 90 dwellings on the site together with an access road, public open space including a Locally Equipped Area of Play (LEAP), two attenuation basins, allotments and landscaping.

The development plan for the Arun District currently comprises the Arun Local Plan 2011-2031, the Arundel Neighbourhood Development Plan (2018-2031) and the West Sussex Waste and Minerals Plans.

The Arun Local Plan (2011 - 2031):

Policy H SP1 "The Housing Requirement" of the Arun Local Plan sets out an overall provision of 20,000 new homes through the Local Plan phased over the plan period to 2031. It includes a reference to additional non-strategic allocations being made across the District through reviews of Neighbourhood Plans.

Arundel Neighbourhood Plan (2018-2031):

The revised Arundel Neighbourhood Plan (NP) was made (adopted) on 15th January 2020 on the basis of the policies in the Arun Local Plan (2018). The revised Arundel NP amends the settlement boundary and it allocates the northern and western parts of this site within the settlement boundary. The northern and western parts of the site are therefore classified as being within the BUAB (which is covered by Policy AR1 of the Arundel NP) and residential development of this part of the site complies with the Arundel NP. The eastern part of the site fronting onto Ford Road is outside the BUAB and is still classed as countryside; and this part of the site is located in Flood Zones 2 and 3 and it includes the green infrastructure.

There is a conflict between the Arundel NP and the Local Plan, but the conflict has been resolved in favour of the NP and the NP is more recently made than the adopted Local Plan; and the site has been the subject of a referendum and a recent examination.

Consequently, the principle of development on this site is considered to be acceptable, in accordance with the policies in the revised Arundel NP.

Other Material Considerations:

The following sets out whether there are any material considerations which indicate that the proposal should be determined other than in accordance with the development plan (comprising both the Arun Local Plan and the Arundel Neighbourhood Plan).

(1) The Council's Housing Land Supply as set out in the Local Plan:

The housing land supply target set out within the Local Plan includes a provision of at least 1,250 homes to be identified through the review of Neighbourhood Plans.

(2) The Council's Current Housing Land Supply Data

In February 2019, the Government published results of its Housing Delivery Test. This shows that Arun has under-delivered on its housing targets (achieving only 91%). The Test recommends that all Councils achieving less than 95% prepare an Action Plan to set out how delivery rates will be improved.

The Council can no longer demonstrate a 5-year Housing Land Supply (HLS) as is required by the NPPF. Indeed, the latest information shows that Arun District has a 2.9 year' housing land supply for the period 2019-2024. The 2.9 year' figure arises from an Inspector's Decision Letter (Appeal Ref: APP/C3810/W/19/3236911) - Land adjacent to Bonhams and Flints, Hoe Lane, Flansham (Y/20/18/OUT).

The reasons for the lower projected delivery include planning delays on some Strategic Allocations; poor quality schemes delaying approvals; developers unable to meet stated and committed timescales; strategic site applications not coming forward as anticipated and developer/market factors outside of local authority control.

The Council's Action Plan was published in June 2019 and makes a series of recommendations in order to boost housing delivery. This includes use of the 'presumption in favour of sustainable development' until such time as the 5-year housing land supply re-established. It recommends that applications be invited from landowners/developers on 'deliverable' HELAA sites to re-establish the 5 year housing land supply.

The release of further land for housing will help to maintain delivery rates. This may have to include sites outside the built-up area boundary in the Arun Local Plan and it would be preferential if such sites were located close to the edge of the BUAB and in sustainable locations which minimise the need to use the private car.

(3) 2019 HELAA Report:

To boost housing land supply in advance of the adoption of the current Local Plan, in early 2017, the Council invited applications on sites identified as 'deliverable' by the HELAA where they were considered sustainable and would not prejudice the emerging local plan and/or infrastructure delivery.

The 2019 HELAA report assessed the site (HELAA Site 66 - Land South of Stewards Rise, Arundel) as "deliverable" with a yield of 186 dwellings, which equated to 6.21 Net Developable Area and a density of 30 dwellings per hectare.

(4) The NPPF & the Presumption in Favour of Sustainable Development;

The National Planning Policy Framework (NPPF) 2019 is a material consideration in determining planning applications. As the Council cannot currently demonstrate a 5-year Housing Land Supply, paragraph 11 (d) of the NPPF and the application of the 'presumption' for sustainable development is triggered.

This means that where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date (such as where the Local Planning Authority cannot demonstrate a five year supply of deliverable housing sites), planning permission should be granted unless (i) the application of policies in the NPPF that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or (ii) any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF as a whole.

There is no question that (i) does not apply to this determination as the site does not lie in a protected landscape. In respect of (ii), the remainder of this letter will show that there are no adverse impacts associated with the proposal. The presumption in favour of sustainable development would apply.

Paragraph 8 of the NPPF states that in order to achieve sustainable development; economic, social and environmental gains should be sought jointly and simultaneously through the planning system. The site is environmentally sustainable as it lies on the south western edge of Arundel and it will be possible for residents to use non-car means of transport to access the primary schools, local shops

and other services. A convenience food store, public houses, churches and church halls, health and education facilities, sports pitches and an outdoor swimming pool are located in Arundel, which is within walking distance of the site. The nearest railway stations are at Arundel which is 1.8km east of the site and Ford, which is 2.0km south of the site, with regular services to settlements throughout West Sussex and beyond to London, Portsmouth and Southampton. The closest bus stop is on Ford Road and there are local bus routes which serve Arundel, linking up with the No. 700 bus service along the A259 to Littlehampton and Chichester. Whilst Arundel currently has limited employment opportunities, the regular bus service would allow current and future residents to access to those opportunities and services sustainably.

Conclusion on Matters of Principle:

The principle of residential development on this site is clearly in accordance with the policies in the Arundel Neighbourhood Plan (2018-2031) which was made (adopted) on 15th January 2020 on the basis of the policies in the Arun Local Plan (2018) as it is an allocated housing site in the NP (Policy AR2). The northern and western parts of the site are identified as being within the BUAB (which is covered by Policy AR1 of the Arundel NP) and residential development of this part of the site complies with the Arundel NP. Consequently, the principle of development on this site is considered to be acceptable, in accordance with the policies in the revised Arundel NP.

DESIGN

The Pre-application Submission document refers to design principles and identifies 9 key themes that would underlie the development of the site, however it does not set out how the proposed residential development accords with the provisions of the National Design Guide or the Arun Design Guide. In the forthcoming outline planning application you will need to provide a statement supporting your design principles and we would seek our own design expertise / appraisal. The design of the proposed houses will need to be of a high quality due to the sensitive location of the development within the setting of Arundel as set out in Policy LAN DM1 of the Local Plan. The Design and Access Statement which accompanies the forthcoming outline planning application will need to set out the design aspirations for the residential development, together with an indicative design framework for the community building - whether that be traditional or contemporary.

An assessment of the pre-application residential site layout on the Land at Ford Lane, Arundel together with the character; density, scale and massing; and materials and architectural details is set out below.

SITE LAYOUT

A pre-application Illustrative Masterplan (Drawing No. IM001 Rev. 4) has been submitted for the proposed residential development of 90 dwellings. The site constitutes approximately 9.81ha, however only 3.9ha will be developed for residential use, with 4.43 utilised as Green Infrastructure, and the remaining 1.48 hectares for the provision of sustainable drainage systems, land for a community building, and additional allotments. The residential development proposed would be located in the northern and western parts of the site in accordance within the amended settlement boundary in Policy AR1 of the Arundel Neighbourhood Plan (2018-2031).

The proposed layout as set out on the Illustrative Masterplan (Drawing No. IM001 Rev. 4) is predicated on the Landscape and Visual Baseline Appraisal, November 2017, which sets out three objectives: Objective 1: Set development within a strong landscape framework incorporating key landscape features. Objective 2: Provide an attractive and appropriate approach to Arundel and other heritage assets. Objective 3: Create an attractive settlement that provides benefits for both the proposed and existing residents and visitors. (Section 7, page 31, November 2017)

The Landscape and Visual Baseline Appraisal splits the site into the three existing fields: the western field, the central field and the eastern field; and due to the sensitive views of Arundel from Tortington to the south and the Flood Zones 2 and 3 along the eastern side of the site, the residential development has been focussed in the northern and western parts of the site, which is considered to be acceptable

in visual terms in accordance with Policy LAN DM2 and in flood mitigation terms. The siting of the residential development in the northern and western parts of the site is within the revised settlement boundary in the Arundel NP (Policy AR1) and it is therefore located within the BUAB.

The site layout is predicated on the settlement boundary which is set out in the revised Arundel NP (Policy AR1), which is considered to be acceptable. The indicative location of the Green and Blue Infrastructure on the Illustrative Masterplan (Drawing No. IM001 Rev. 4) has the potential to incorporate the ecological network, which is supported. There is the potential for the green and blue infrastructure on the site to be fully integrated into the residential development. A sustainable drainage strategy is required to be submitted in accordance with Policy AR2(k).

There are numerous watercourses / ditches / culverts passing through the site, as well as being located on the perimeter. Due consideration will need to be given to these features at the detailed design stage, ensuring no structures and fences are located within 3 metres of the top of the ditch bank or edge of culvert. It is suggested that an early site meeting takes place to assess the situation with the ADC Drainage Engineers, especially as there may be an opportunity to improve the low-lying area on the eastern boundary that occasionally holds water, to encourage habitat as well as store water that will run-off some of the areas of open space.

The siting of the dwellings along the proposed new road through the site and at key junctions as shown on the Illustrative Masterplan (Drawing No. IM001 Rev. 4) lack a sense of arrival due to the siting of the individual dwellings which do not all face onto the junction and they frequently include side elevations. The layout of the dwellings located on either side of the access road from Ford Lane needs to be amended by removing the gable ends and introducing dual aspect units, which would assist in providing a sense of arrival, together with active frontages. The proposed dwellings located at all the road junctions within the site should have dual aspects so that they look onto the junctions. Due consideration should be given to the creation of visually interesting vistas which would enhance the layout of the site. The design rationale for the site, including the layout of the houses along the proposed new road through the site needs to be developed out of a site appraisal as recommended by Section D.01 of the Arun Design Guide. As referred to above, "the design rationale should draw upon the results of the site appraisal in order to justify the reasoning behind key design decisions for the proposed development." (Section D.02 of the Arun Design Guide)

The development should be sensitively designed so that it does not harm the many heritage assets, whilst reflecting the character of the area. This could be achieved through the use of a carefully prepared site layout and landscaping scheme which would separate the development from the heritage assets, whilst providing increased screening. The Illustrative Masterplan (Drawing No. IM001 Rev. 4) indicates that the intention is to ensure that the parts of the site closest to the heritage assets remain undeveloped as public open space. The views and setting of the town of Arundel are also important and should be carefully considered when working up the layout for the outline planning application. For instance, the views northwards towards the town are very important. Parameter plans need to be included with the outline planning application to protect the views outwards from Arundel as well as towards Arundel to ensure the development complies with Policy LAN DM2 'The Setting of Arundel'. The Illustrative Masterplan identifies that an area of land in the eastern part of the site will not be developed in order to maintain views of the Arundel skyline. Such an approach is positive, and it is thought that the specific area will need to be identified based on sound evidence (which could support the forthcoming outline planning application). It is suggested that this approach would be enhanced through careful landscaping proposals, and it is considered that it should maintain a more rural, natural character, which is reflective of its semi-rural location.

The Illustrative Masterplan (Drawing No. IM001 Rev. 4) identifies the proposed vehicular access to the site off Ford Road. It is considered that the design of the access onto Ford Road should reflect the surrounding character and be such that it is not over-engineered, which would look out of character, nor should it include excessive use of lighting. This is especially important given that the intention is to maintain an area of open land in the eastern part of the site, which removes the development from

Ford Road and maintains the semi-rural character of this area. The principles of the lighting proposed for the site should be set out in the Design and Access Statement which accompanies the outline planning application. It is considered that the proposed provision of an access road onto Ford Road would comply with Policy AR2(f) of the Arundel NP and Policy T SP1 of the Local Plan, and it is considered to be acceptable in principle, as Ford Road is a long straight stretch of highway with good visibility both north and south. However, the precise alignment of the access road would need to be revised to take into account the root protection areas of a number of high value retained trees on the site. This is the view of the Local Planning Authority and you are advised to enter into pre-app discussions with the Local Highway Authority regarding the siting of the access onto Ford Road. The Illustrative Masterplan identifies the location of the emergency vehicle access onto Dalloway Road, which complies with Policy AR2(f) and it is considered to be acceptable. The Masterplan also identifies the pedestrian and cycling access points from Ford Road, Dalloway Road, High Ridge Close and Priory Lane; which would comply with Policy AR2(g) of the Arundel NP and would enable the development to connect and integrate with the existing community at Torton Hill in accordance with Policy AR2(l); and are considered to be acceptable. Provision is proposed to be made to secure footpath connectivity through the site between Dalloway Road and Ford Road in accordance with Policy AR2(h), which is also considered to be acceptable.

The Illustrative Masterplan (Drawing No. IM001 Rev. 4) is generally sympathetic and accommodates the existing green infrastructure. However, there are a number of significant trees on the site which could be adversely affected by the proposed pre-application layout as shown on the Illustrative Masterplan (Drawing No. IM001 Rev. 4). The vehicular access for the site from Ford Lane is logical although it may incur substantial incursion into the nominal root protection area (RPA) of a high value retained tree (T76). Similarly, the primary route through the middle of the site appears to have potential for conflict with veteran oak (T11). The layout should be amended to ensure there is potential for further tree growth (root and crown extension) and so that the layout complies with Policy AR2(i) of the Arundel NP regarding the safeguarding of trees subject to a Tree Preservation Order.

The layout should be amended to ensure there is no incursion into the RPA; this is especially relevant where there are trees of high public amenity, outstanding landscape, ecological and heritage value. For those trees, the root protection area (plus a 2.0 metre buffer) should be an absolute minimum requirement, although ideally the trees should be incorporated into an area of open space or within a broader landscape buffer zone and be so remote from any residential development such that they can project veteran status without being subject to any risk mitigation pruning works in the future. Any trees that currently or may provide high visual amenity should be made focal points both within the development and from beyond, not obscured by built form; in addition to allocating sufficient undisturbed ground around their root and crown spreads. There is a considerable amount of lesser trees, established hedgerow and habitat areas within and about the perimeter of the site which provide valuable screening and ecological benefit. Their future growth and potential influence over any adjacent residential property should be a major consideration in designing a site layout that is sympathetic to accommodating their long-term presence especially in respect of shading, any ongoing maintenance requirements and curtailing future residential pressure to prune.

The potential impact on the location would require that landscaping be provided as mitigation towards screening and softening of the residential development. An existing green boundary is evident in places, this may require further boundary planting treatment to enhance and improve. Further landscaping would be required within the development and areas of public open space to increase biodiversity and habitat within this rural fringe site.

The Landscape and Visual Baseline Appraisal says: "green corridors along the periphery and through the development will provide opportunities for links into and through the site to the parkland from the existing rights of way" (paragraph 7.2.16, November 2017). The layout as set out on the Illustrative Masterplan (Drawing No. IM001 Rev. 4) has shown 90 dwellings within the proposals with areas of peripheral open space to the south and east of the proposals and an area of public open space, denoted 'Central Green' at the heart of the scheme. The non-developable land is proposed to be formal

and informal recreation parkland and includes a LEAP in accordance with Policy AR2(j).

The Central Green appears small in relation to the surrounding green space. The Central Green should be enlarged and made into a village green. If the Locally Equipped Area of Play (the LEAP) is located in the Central Green there needs to be sufficient distance from dwellings (i.e. 20 metre stand-off distance). Pedestrian and cycle routes should be developed both within and beyond the site. You are advised to refer to the West Sussex Cycling Design Guide (A guide for Developers, Planners and Engineers), prepared by West Sussex County Council in August 2019, when designing cycleways within and into/out of the site.

The Illustrative Masterplan (Drawing No. IM001 Rev. 4) includes the provision of a LEAP and allotments; both of which are supported. However, provision should also be made for several on-site, unequipped natural play areas known as Local Areas of Play (LAPs), which are required by the ADC Open Space, Playing Pitches, Indoor and Built Sports Facilities SPD, January 2020. The LAPs should include such features as landform, boulders or logs, seat and litter bins

Reference is made in the pre-application correspondence to the provision of land for a community building, but it is not clear on the Illustrative Masterplan where this would be provided. The proposal does not identify land for a community building, so it does not comply with Policy AR2(c); the layout plan should identify land to safeguard in accordance with this policy.

An illustrative layout at the outline planning stage would not be detailed enough to show parking provision, however, there would need to be a commitment to meet the required standards as set out in the Arun District Parking Standards SPD, January 2020, comprising 2 car parking spaces per dwelling, 20% provision for visitor parking and 1 cycle parking space per dwelling.

The proposed residential development is not considered acceptable in terms of layout for the reasons set out above.

CHARACTER

The Illustrative Masterplan (Drawing No. IM001 Rev. 4) does not create a sense of place. The Design and Access Statement which will accompany the forthcoming outline planning application for the mixed use development on Land at Ford Road will need to identify different character areas within the residential development, which will help to create a sense of place and provide the development with an identity.

DENSITY, SCALE AND MASSING

Paragraph 122(a) of the NPPF (February 2019) says that "planning decisions should support development that makes efficient use of land, taking into account the identified need for different types of housing and other forms of development, and the availability of land suitable for accommodating it."

The proposed residential development comprises no more than 3.9 hectares within the BUAB in accordance with Policy AR2(a). The proposed residential scheme delivers approximately 90 dwellings in accordance with Policy AR2(b). The proposed development of 90 dwellings on 3.9 hectares of land would amount to a site density of 23 dwellings per hectare, which is considered to be acceptable in this visually sensitive location on the southern edge of Arundel. The provision of a higher density of housing in this location would be contrary to Policy AR2(b) of the Arundel NP and could result in the creation of a hard urban edge to the southern settlement boundary of the town, giving the development a suburban appearance, which would be out of place within the historic setting of Arundel.

MATERIALS AND ARCHITECTURAL DETAILS

The Pre-application Submission document includes a section on local character and building materials including painted render, tile hanging, and traditional Sussex flint and flint & brick walls. The building materials identified in the pre-application Submission Statement reflect those common to the area in accordance with Policy AR2(m) of the Arundel NP. It is understood that this information is indicative,

but the use of tile hanging on the elevations of properties and the use of painted render and flint, especially on key buildings and buildings at focal points across the site would be supported. It would be helpful if this information was submitted in the Design and Access Statement which will accompany the forthcoming outline planning application.

ADAPTABILITY

The LPA has a Guidance Note setting out standards aimed at securing a percentage of homes as disabled friendly and adaptable, meeting suitable standards. Under building regulations optional requirement M4(2): Category 2 - Accessible and adaptable dwellings can be enforced where it is required by a planning condition, in accordance with Policy D DM1 of the Local Plan. For schemes greater than 51 unit inclusive - 15% of units need to be designed to M4(2) standard plus two additional units to be designed to M4(3) wheelchair accessible, for every 50 units proposed thereafter. However, there is an aspiration to secure 100% M4(2). It is considered that this can be secured adequately via a suitably worded condition. The forthcoming outline planning application should include provision for such units.

NEIGHBOUR AMENITY

Parameter plans need to be included with the outline planning application giving the height of properties to ensure that overlooking and loss of light is not an issue where the site abuts the residential properties to the north and west of the site on High Ridge Close and Dalloway Road.

Although there are no adopted standards on rear garden sizes in the Local Plan, the indicative layout plan that is submitted with the outline planning application needs to ensure there is sufficient space to ensure that all of the rear gardens of the houses on the site measure at least 10 metres in length, to ensure adequate amenity space is provided. It is difficult to conclude from the submitted Illustrative Masterplan (Drawing No. IM001 Rev. 4) that all of the rear gardens of the houses on the site measure at least 10 metres in length.

AFFORDABLE HOUSING

The Council aims to ensure that 30% affordable housing is achieved on all new residential developments in the district where more than 11 dwellings are proposed such as on this site, in accordance with Policy AH SP2 of the Local Plan.

The ADC Housing Officer has made the following comments:

There is high demand for affordable housing throughout the Arun District for both rent and low-cost home ownership. As of March 2020, there were 936 households in housing need on the Council's housing register.

The required tenure split for this site is 75% rented and 25% intermediate housing. The proposed number of affordable dwellings (i.e. 27 units) complies with the Council's Affordable Housing policy which equates to 20 x rented and 7 x intermediate tenure. However, the affordable housing mix should reflect Policy AH SP2 of the Local Plan. The proposed affordable housing mix should be revised to reflect that set out below:

Rented:

6 x 1 bed

10 x 2 bed

4 x 3 bed

Intermediate:

2 x 1 bed

3 x 2 bed

2 x 3 bed

Due to the affordability of rented accommodation the rent should not be set higher than 90% of Local Housing Allowance (LHA) levels. In addition to ensure sufficient dwellings are accessible for those on the Council's Housing Register we would anticipate that a minimum of 50% of the rented units are set at rent levels of no higher than 65% of open market value.

All of the necessary affordable housing requirements would need to be included in a Section 106 agreement and not be secured by planning condition. There is an opportunity for the affordable dwellings to be delivered on the site by the Arundel Community Land Trust.

The proposed development should comply with Policy AH SP2 of the Local Plan in terms of clustering. Ideally, the affordable dwellings should be in small clusters, of no more than five dwellings, which are pepper potted throughout the development.

CONSERVATION AREA

The ADC Conservation Officer has made the following comments:

A Heritage Statement has been provided as part of the pre-application (dated 2017) which has been reviewed and noted. There are some heritage assets in the immediate area, which are of specific note, these are: Tortington Priory Barn, to the north of Priory Farm (Grade II* Listed); and Tortington Augustinian priory and ponds, including part of priory precinct, which is a Scheduled Ancient Monument. Both assets are of high significance. It is also worth noting that slightly further away to the east is the Grade II Listed Windmill on Fitzalan Road. There are also important views of the town and various assets from the site and the surrounding area (including Arundel Conservation Area which lies approximately 800 metres to the north west of the site, and many listed and locally Listed Buildings including the Castle). The site is located within the area identified as being part of the setting of Arundel, which is covered by Policy LAN DM2 of the Arun Local Plan.

The forthcoming outline planning application should be accompanied by an updated Heritage Statement.

PROTECTED TREES

The ADC Arboricultural Officer has made the following comments:

The Tree Survey, prepared by SJA trees - Arboricultural Planning Consultants, January 2020 is comprehensive and accords with the requirements of BS5837:2012. The report and plans are of high quality and provide a thorough appraisal of the tree population. I also endorse their identification of 'potential veteran tree status' in respect of T52 & T53 as well as highlighting the 'emerging veteran' status of many of the other field boundary oak trees. For some reason, the extent of the survey appears incomplete relative to the Illustrative Masterplan. The trees growing alongside Priory Lane and overlapping the western parcel have not been considered; and these will need to be included in any subsequent planning application. The site has a Tree Preservation Order (TPO) covering a number of trees along the boundary between the central and eastern fields (TPO/AB/2/16). However, it is recommended that priority is given to the making of a further Tree Preservation Order (TPO) to cover 1x hawthorn, 25x pedunculate oak. The paperwork for the proposed TPO is currently being prepared.

OPEN SPACE PROVISION

ADC Greenspace has made the following comments:

A development of 90 dwellings would require the provision of on-site public open space measuring a minimum area of 7,425m². Confirmation of the area of public open space being proposed has not been submitted with the pre-application correspondence, but it would be required to be submitted with the forthcoming outline planning application. A clear indication of the proposed future management of the public open space, play and public realm areas must be provided with the forthcoming planning application. Commuted sums would be required should the public open space or play areas be transferred to the LPA for maintenance.

NOISE POLLUTION

Local Plan policies emphasise that noise sensitive development will not be permitted if its users would be affected by noise by proposed noise generating uses.

Environmental Health has requested a noise report should be submitted with the forthcoming outline planning application, to ensure the safeguarding of neighbouring residential amenity. Subject to the submission of a noise report, the proposed residential development is likely to be acceptable in terms of noise emissions.

CONTAMINATION

Development on or close proximity to hazardous sites or contaminated land will be permitted provided the Council is satisfied that appropriate remedial measures can be or have been undertaken in respect of human health and groundwater.

In terms of the precautionary principle, Environmental Health has requested that when the outline planning application has been submitted and is being determined that a contaminated land condition be recommended in case contamination is uncovered on the site during construction works.

INFRASTRUCTURE PROVISION

The Council will seek fair and reasonable contributions to be made by the landowners or developers towards the cost of infrastructure, service or amenity provision, to meet the needs of the occupiers or users of the development.

The proposed development could help to support the local community by providing 90 dwellings with a mix of bedrooms (and affordable homes) to meet future needs.

The proposed development would be required to make a CIL contribution towards local schools, libraries, sports facilities (including an off-site Neighbourhood Equipped Area of Play) and allotments as set out in the Open Space SPD, and the local health service. As such, there would be a further benefit to the local community as the development site is located in Zone 3 of the Arun CIL Charging Schedule Zone Maps and would therefore be liable to pay CIL at £100 per square metre of net additional floorspace. It is difficult to give an accurate figure for CIL because there are no floor plans. You are also proposing 27 Affordable Homes so you may receive relief for this. Taking an average size house of 90 square metres which would give a CIL contribution of around £810,000 (CIL Zone 3 £100/m²). This is of course likely to change depending on final internal house sizes and any relief applied for and/or granted.

CIL contributions could go towards sports pitch and ancillary sporting facilities contributions along with built facilities/pools and halls. Off-site allotment contributions would be required amounting to £1,732 (i.e. 90 dwellings x £19.25) as set out in the SPD.

As far as possible, Section 106 contributions would be limited to on-site mitigation and affordable housing provision, in accordance with Appendix 2 of the Arun CIL Charging Schedule.

In terms of on-site infrastructure, the LPA has adopted guidance on the provision of electric vehicle charging points. The principles of the provision of electric vehicle charging points to serve each house as set out in paragraph 2.8 and Table 2.2 of the Arun District Parking Standards SPD, should be set out in the Design and Access Statement that accompanies the forthcoming Design and Access Statement.

All new residential development will be expected to be energy efficient. The proposed development on Land at Ford Road must produce 10% of the total predicted energy requirements from renewable or low carbon energy generation on site, in accordance with Policy ECC SP2 of the Local Plan.

If permission were to be granted for this development, the Council would request that the applicant signs up to the Developer and Partner Charter and agrees to use local suppliers wherever possible as

well as producing a Skills Plan.

BIODIVERSITY

Development will need to avoid impacts on protected species on a site such as this, and where this is not possible, mitigation or compensation will be necessary. The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. If there is a possibility that a development proposal will impact on a protected species, surveys will need to be submitted with a planning application to determine the presence or absence of a protected species upfront with a planning application and will not be a condition of a planning permission if granted since their presence is a material consideration that will need to inform decisions. If planning permission is granted, a licence, a development licence or conservation licence, from Natural England may be required. All ecological surveys need to be undertaken by a suitably qualified ecologist and at the right time of year and the right duration.

The site is located in the Arun Valley SPA which is vulnerable to unsympathetic management. It is important that an appropriate hydrological regime is maintained, which includes winter flooding. The eastern part of the site is also designated as a Biodiversity Opportunity Area where development shall retain and sympathetically incorporate locally valued and important habitats, including wildlife corridors and stepping stones; and be designed in order to minimise distance to habitats.

The Council's Ecological Advisor has made the following comments:

Due to the size and location of the development it is recommended that an Extended Phase One Habitat Survey is undertaken by a trained ecologist to determine the presence of protected species within the site and the impact a development would have on the surrounding environment. Following this survey, if any further surveys are recommended we would require these to also be undertaken and any mitigation required to be considered and included within the planning application.

A biodiversity strategy has not been submitted with the pre-application correspondence but this will need to be submitted with the outline planning application to ensure it is in accordance with Policy AR2(e).

In line with Policy ENV DM5 of the Arun District Local Plan, information on Biodiversity Net Gain needs to be provided in the biodiversity strategy. This would include incorporating a variety of ecological enhancements including any trees removed should be replaced at a ratio of 2:1; wildflower meadow planting should be used in the landscaping of the site; a wildlife pond should be incorporated in the layout; any gaps in tree lines or hedgerows should be filled in with native species; bat bricks / tiles should be integrated into the buildings onsite facing south/south westerly positioned 3-5 metre above ground; bird boxes should be installed on the buildings / and or tree within the gardens of the properties; grassland areas should be managed to benefit reptiles; and log piles should be provided on-site. Gaps should be included at the bottom of garden fences to allow movement of small mammals across the site; and two hedgehog nesting boxes should be included on the site.

ARCHAEOLOGY

Archaeological remains are a fragile and finite resource. The Council has set out in detail policy within a Supplementary Planning Guidance "Archaeology" adopted September 2003 which is available on the Council's website. Permission will not be granted for development that would be harmful to the significant archaeological interest of the site.

The ADC Archaeological Advisor has made the following comments:

The site seems to contain nothing of such archaeological interest that either development should be refused or pre-determination field evaluation should be required. However, it lies in a location, on the very edge of the flood-plain of the Arun, that should be expected to have concentrated activity in the

later prehistoric and Roman periods - and indeed the general archaeological record contains evidence of discoveries that tend to confirm this. In the circumstances it would probably be appropriate to impose a standard archaeology condition on any grant of planning permission, the intention being to secure a programme of trial trenching prior to development in order to identify significant archaeological deposits that might be present and to implement appropriate measures for their preservation.

DRAINAGE ENGINEERS COMMENTS

The Council's Drainage Engineers have made the following comments:

The hierarchy for sustainable drainage must be adhered to, with infiltration fully investigated. It is anticipated that deeper infiltration features will be required in this location. Winter infiltration testing and winter groundwater monitoring must be undertaken. It is advised that the applicant discusses the extent of the winter infiltration testing and winter groundwater monitoring with ADC Drainage Engineers at the earliest opportunity. Infiltration tests must be carried out in accordance with BRE365, CIRIA R156 or a similar approved method and cater for the 1 in 10 year storm between the invert of the entry pipe to the soakaway, and the base of the structure. It must also have provision to ensure that there is capacity in the system to contain below ground level the 1 in 100 year event plus 40% on stored volumes, as an allowance for climate change. Adequate freeboard must be provided between the base of the soakaway structure and the highest recorded annual groundwater level identified in that location. Adequate treatment of surface water must be ensured prior to discharge and permeable paving would be expected to achieve this.

Supplementary guidance notes regarding surface water drainage are located here:

<https://www.arun.gov.uk/surfacewater> on Arun District Council's website. A surface water drainage checklist is available here: <https://www.arun.gov.uk/drainagechecklist> on Arun District Council's website, this should be submitted with a Discharge of Conditions (DOC) Application.

The eastern area of the site is within the flood plain, therefore any works in this area including any ground raising, will require consultation with the Environment Agency.

SUGGESTED EXTERNAL CONSULTEES:

Archaeology Advisor

jkenny@chichester.gov.uk

CONCLUSION

Based on the above comments I conclude that were an application for planning permission to be submitted for residential development on the Land at Ford Road, Arundel it would be likely to be refused as the proposed layout requires to be amended, taking on board the issues raised in this correspondence. The Central Green needs to be enlarged and made more of a feature. The road access onto Ford Road should not be over-engineered. The site layout needs to be predicated upon the surface water drainage strategy for the site, which could include the provision of attenuation basins and swales, and the houses and landscaping features should be laid out around these features. Parameter Plans are required to identify the heights of dwellings especially as the site is located within the setting of Arundel. The site layout should take into account the root protection areas (RPAs) of the trees that are subject to Tree Preservation Orders. The affordable housing mix also needs to be amended, as set out in this correspondence.

In addition to this, the pre-application correspondence does not set out how the proposed development accords with the provisions of the Arun Design Guide; and it does not set out how what you are proposing addresses the National Design Guide. This information needs to be submitted with the outline planning application.

This conclusion is caveated on the fact that not all of the information has been submitted with the pre-

application correspondence. This pre-application response only covers the covering letter (09/04/2020), the Pre-application Submission document (2020) including the Illustrative Masterplan (Drawing No. IM001 Rev. 4), the Heritage Assessment (September 2017), the Landscape and Visual Baseline Appraisal (November 2017), the Tree Survey Schedule (January 2020) and the Tree Constraints Plan (Drawing No. SJA TCP 19515-011) as these were the only pieces of information submitted for consideration.

FOLLOW UP MEETING

If you require a follow up meeting to discuss this pre-application and advice, you will need to forward a written request together with a fee for £200 made payable to Arun District Council if not already included in the fee you have already paid.

MAKING AN APPLICATION

If you decide to proceed with making an application you will need to quote the reference number for this advice in the pre-application advice section of the relevant application form. This will ensure that the application receives priority and a speedy validation process.

You will need to submit the following documentation/information with your application to meet the National Validation Requirements:

Fully completed and signed Application Form with full description of the proposal.
Ownership Certificate and Agricultural Land Declaration
Design and Access Statement
Correct Fee
Location Plan (1:1250)
Site / Block Plan (1:500)
Elevations (Existing and Proposed)
Floor Plans (Existing and Proposed)
Roof Plans

Please note that the Council has a Local Validation Requirements List and you should refer to it before submitting your application. Failure to provide the required documentation and to complete the Validation Checklist and the Biodiversity Checklist will result in the application being treated as incomplete and delay the validation of the planning application.

Having looked through the Local Validation Requirements List, I would suggest that the following additional documents will be required:

Affordable Housing Statement
Air Quality Assessment
Bin Storage and Collection Provision
Biodiversity Survey and Report
Flood Risk Assessment
Foul and Surface Water Drainage Statement
Updated Heritage Statement.
Landscaping Strategy
Landscape & Visual Impact Assessment
Lighting Assessment
Noise Assessment
Parking Plan
Planning Application Summary
Statement of Community Involvement
Street Scene

You should be aware that any advice given by the Council in relation to pre-application advice will be based on the case Officer's professional judgement and will not constitute a formal response or decision of the Council with regard to any future planning applications. Any views or opinions expressed are given without prejudice to the consideration by the Council of any formal planning application which will be subject to wider consultation and publicity. Although the case officer may indicate the likely outcome of a formal planning application, no guarantees can or will be given about the decision that will be made on any such application. Any further correspondence will be at the Case Officer's discretion depending on the nature of the further enquiry. It may be necessary to submit a further pre-application advice request. Please note this advice only relates to planning and does not relate to any other legislation which may or may not apply such as Building Regulations or ordinary watercourse consents. You will need to carry out your own checks to determine whether any other consents or permissions are required.

I trust this is of assistance to you.

Yours sincerely

A handwritten signature in black ink, appearing to be 'NC' followed by a flourish and a period.

Neil Crowther
Group Head of Planning

WEST SUSSEX COUNTY COUNCIL CONSULTATION

TO:	Ardent Consulting Engineers FAO: Kevin Markey
FROM:	Stephen Gee - WSCC - Highways Authority
DATE:	23 July 2020
LOCATION:	Land at Tortington, Ford Road, Arundel, BN18 9EU
SUBJECT:	PRE-57-20 The erection of 90 new dwellings with associated open green spaces
DATE OF SITE VISIT:	n/a
RECOMMENDATION:	Advice
S106 CONTRIBUTION TOTAL:	n/a

The pre application advice is provided based upon a Transport Scoping Note ref 173483-02 and a pre application phone call on the 3rd of June 2020.

1. Introduction

This letter is to provide you with the advice of the Highways Authority (HwyA) in relation to the proposed development. The development is located on a site of approximately 1.5 hectares, bounded by Ford Road to the north and south, and Tortington Road to the east. The site is currently used for agricultural purposes and is adjacent to a residential area. The proposed development consists of 90 new dwellings, with associated open green spaces. The development is proposed to be built on a site that is currently used for agricultural purposes and is adjacent to a residential area. The proposed development consists of 90 new dwellings, with associated open green spaces. The development is proposed to be built on a site that is currently used for agricultural purposes and is adjacent to a residential area. The proposed development consists of 90 new dwellings, with associated open green spaces.

2. Advice

The advice is based on the information provided in the Transport Scoping Note (TSN) and the pre-application phone call. The TSN identifies the key issues for the development, including the need for a new access point to the site, the need for a new drainage system, and the need for a new parking area. The advice is based on the information provided in the TSN and the pre-application phone call. The TSN identifies the key issues for the development, including the need for a new access point to the site, the need for a new drainage system, and the need for a new parking area.

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- [The access point to the site is proposed to be located on the north side of the site, adjacent to Ford Road.]
- [The drainage system is proposed to be located on the south side of the site, adjacent to Tortington Road.]
- [The parking area is proposed to be located on the east side of the site, adjacent to Tortington Road.]

The advice is based on the information provided in the TSN and the pre-application phone call. The TSN identifies the key issues for the development, including the need for a new access point to the site, the need for a new drainage system, and the need for a new parking area. The advice is based on the information provided in the TSN and the pre-application phone call. The TSN identifies the key issues for the development, including the need for a new access point to the site, the need for a new drainage system, and the need for a new parking area.

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Appendix B

23106		ARUNDEL							
		JUNE 2018							
Site	Location	Direction	Start Date	End Date	Posted Speed Limit (PSL)	Total Vehicles	5 Day Ave.	7 Day Ave.	Average 85%ile Speed
Site No: 23106001	Site 1, Dalloway Road, Arundel (LC 7) TQ 00501 06441	Channel: Northbound	Tue 19-Jun-18	Mon 25-Jun-18	30	778	146	111	19.6
		Channel: Southbound	Tue 19-Jun-18	Mon 25-Jun-18		968	186	138	17.6

23106		ARUNDEL				
		JUNE 2018				
Site	Location	Direction	Start Date	End Date	Posted Speed Limit (PSL)	Average Mean Speed
Site No: 23106001	Site 1, Dalloway Road, Arundel (LC 7) TQ 00501 06441	Channel: Northbound	Tue 19-Jun-18	Mon 25-Jun-18	30	15.6
		Channel: Southbound	Tue 19-Jun-18	Mon 25-Jun-18		14.0

23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Tue 19-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
05:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
06:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
07:00	12	1	8.3	9	75.0	2	16.7	0	0.0	0	0.0
08:00	24	1	4.2	22	91.7	0	0.0	1	4.2	0	0.0
09:00	12	0	0.0	12	100.0	0	0.0	0	0.0	0	0.0
10:00	17	0	0.0	15	88.2	1	5.9	1	5.9	0	0.0
11:00	8	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0
12:00	5	0	0.0	4	80.0	1	20.0	0	0.0	0	0.0
13:00	9	1	11.1	8	88.9	0	0.0	0	0.0	0	0.0
14:00	10	1	10.0	7	70.0	1	10.0	1	10.0	0	0.0
15:00	11	0	0.0	9	81.8	2	18.2	0	0.0	0	0.0
16:00	12	1	8.3	7	58.3	2	16.7	2	16.7	0	0.0
17:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
18:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
19:00	7	0	0.0	6	85.7	0	0.0	1	14.3	0	0.0
20:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
21:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	127	5	3.9	108	85.0	9	7.1	5	3.9	0	0.0
16H,6-22	147	5	3.4	125	85.0	11	7.5	6	4.1	0	0.0
18H,6-24	147	5	3.4	125	85.0	11	7.5	6	4.1	0	0.0
24H,0-24	149	5	3.4	127	85.2	11	7.4	6	4.0	0	0.0

23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Wed 20-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
06:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
07:00	9	0	0.0	8	88.9	1	11.1	0	0.0	0	0.0
08:00	22	1	4.6	17	77.3	0	0.0	4	18.2	0	0.0
09:00	9	0	0.0	8	88.9	1	11.1	0	0.0	0	0.0
10:00	9	1	11.1	7	77.8	1	11.1	0	0.0	0	0.0
11:00	8	2	25.0	5	62.5	0	0.0	1	12.5	0	0.0
12:00	14	1	7.1	11	78.6	2	14.3	0	0.0	0	0.0
13:00	13	2	15.4	10	76.9	0	0.0	1	7.7	0	0.0
14:00	13	0	0.0	12	92.3	1	7.7	0	0.0	0	0.0
15:00	10	0	0.0	10	100.0	0	0.0	0	0.0	0	0.0
16:00	10	0	0.0	10	100.0	0	0.0	0	0.0	0	0.0
17:00	5	0	0.0	4	80.0	1	20.0	0	0.0	0	0.0
18:00	13	0	0.0	12	92.3	0	0.0	1	7.7	0	0.0
19:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
20:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
21:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
22:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
23:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
12H,7-19	135	7	5.2	114	84.4	7	5.2	7	5.2	0	0.0
16H,6-22	148	7	4.7	126	85.1	8	5.4	7	4.7	0	0.0
18H,6-24	150	7	4.7	128	85.3	8	5.3	7	4.7	0	0.0
24H,0-24	151	7	4.6	129	85.4	8	5.3	7	4.6	0	0.0

23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Thu 21-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0
07:00	11	0	0.0	9	81.8	2	18.2	0	0.0	0	0.0
08:00	31	1	3.2	27	87.1	1	3.2	2	6.5	0	0.0
09:00	13	0	0.0	10	76.9	2	15.4	1	7.7	0	0.0
10:00	14	0	0.0	13	92.9	0	0.0	1	7.1	0	0.0
11:00	5	0	0.0	4	80.0	0	0.0	1	20.0	0	0.0
12:00	12	1	8.3	10	83.3	0	0.0	1	8.3	0	0.0
13:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
14:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
15:00	8	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0
16:00	11	0	0.0	10	90.9	0	0.0	1	9.1	0	0.0
17:00	7	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0
18:00	12	1	8.3	10	83.3	0	0.0	1	8.3	0	0.0
19:00	7	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0
20:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
21:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	132	3	2.3	116	87.9	5	3.8	9	6.1	0	0.0
16H,6-22	152	3	2.0	134	88.2	6	4.0	9	5.9	0	0.0
16H,6-24	152	3	2.0	134	88.2	6	4.0	9	5.9	0	0.0
24H,0-24	152	3	2.0	134	88.2	6	4.0	9	5.9	0	0.0

23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Fri 22-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
06:00	6	0	0.0	5	83.3	0	0.0	1	16.7	0	0.0
07:00	17	0	0.0	16	94.1	1	5.9	0	0.0	0	0.0
08:00	20	1	5.0	17	85.0	0	0.0	2	10.0	0	0.0
09:00	7	0	0.0	6	85.7	1	14.3	0	0.0	0	0.0
10:00	12	0	0.0	11	91.7	0	0.0	1	8.3	0	0.0
11:00	7	0	0.0	5	71.4	1	14.3	1	14.3	0	0.0
12:00	9	0	0.0	8	88.9	1	11.1	0	0.0	0	0.0
13:00	11	0	0.0	9	81.8	0	0.0	2	18.2	0	0.0
14:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
15:00	7	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0
16:00	6	0	0.0	5	83.3	1	16.7	0	0.0	0	0.0
17:00	8	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0
18:00	11	0	0.0	10	90.9	0	0.0	1	9.1	0	0.0
19:00	7	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0
20:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
21:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	121	1	0.8	108	89.3	5	4.1	7	5.8	0	0.0
16H,6-22	133	1	0.7	122	88.4	7	5.1	8	5.8	0	0.0
18H,6-24	130	1	0.7	122	88.4	7	5.1	8	5.8	0	0.0
24H,0-24	139	1	0.7	123	88.5	7	5.0	8	5.8	0	0.0

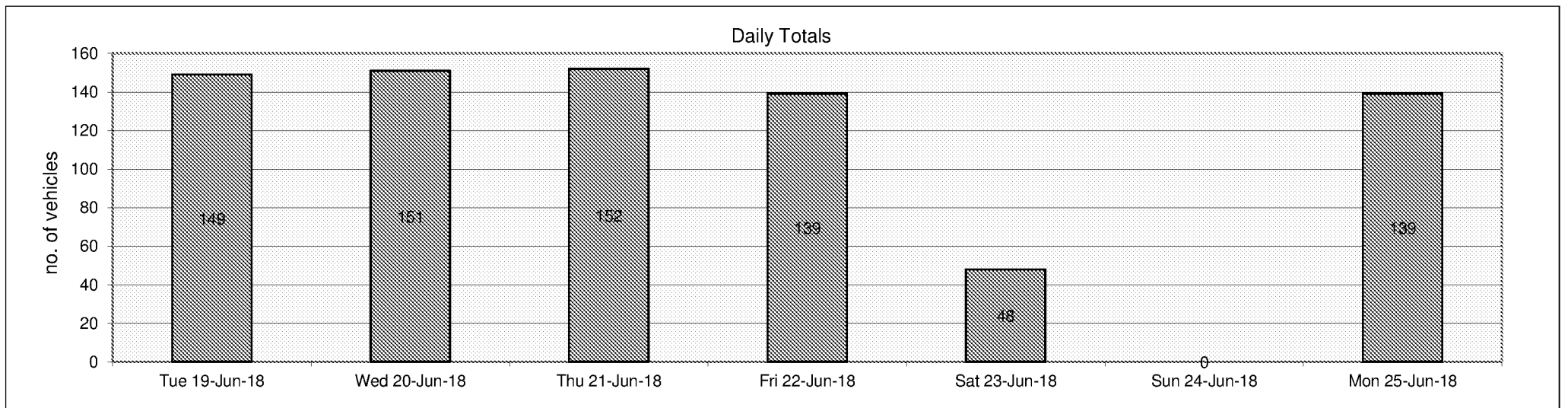
23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sat 23-Jun-18											
00:00	2	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
07:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
08:00	12	0	0.0	12	100.0	0	0.0	0	0.0	0	0.0
09:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
10:00	9	0	0.0	6	66.7	0	0.0	0	0.0	3	33.3
11:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
12:00	4	2	50.0	2	50.0	0	0.0	0	0.0	0	0.0
13:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
14:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
15:00	0	0	-	0	-	0	-	0	-	0	-
16:00	0	0	-	0	-	0	-	0	-	0	-
17:00	0	0	-	0	-	0	-	0	-	0	-
18:00	0	0	-	0	-	0	-	0	-	0	-
19:00	0	0	-	0	-	0	-	0	-	0	-
20:00	0	0	-	0	-	0	-	0	-	0	-
21:00	0	0	-	0	-	0	-	0	-	0	-
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	43	2	4.7	38	88.4	0	0.0	0	0.0	3	7.0
16H,6-22	46	2	4.4	41	89.1	0	0.0	0	0.0	3	6.5
18H,6-24	46	2	4.4	41	89.1	0	0.0	0	0.0	3	6.5
24H,0-24	46	2	4.2	41	85.4	2	4.2	0	0.0	3	6.3

23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Northbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sun 24-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	0	0	-	0	-	0	-	0	-	0	-
07:00	0	0	-	0	-	0	-	0	-	0	-
08:00	0	0	-	0	-	0	-	0	-	0	-
09:00	0	0	-	0	-	0	-	0	-	0	-
10:00	0	0	-	0	-	0	-	0	-	0	-
11:00	0	0	-	0	-	0	-	0	-	0	-
12:00	0	0	-	0	-	0	-	0	-	0	-
13:00	0	0	-	0	-	0	-	0	-	0	-
14:00	0	0	-	0	-	0	-	0	-	0	-
15:00	0	0	-	0	-	0	-	0	-	0	-
16:00	0	0	-	0	-	0	-	0	-	0	-
17:00	0	0	-	0	-	0	-	0	-	0	-
18:00	0	0	-	0	-	0	-	0	-	0	-
19:00	0	0	-	0	-	0	-	0	-	0	-
20:00	0	0	-	0	-	0	-	0	-	0	-
21:00	0	0	-	0	-	0	-	0	-	0	-
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	0	0	-	0	-	0	-	0	-	0	-
16H,6-22	0	0	-	0	-	0	-	0	-	0	-
18H,6-24	0	0	-	0	-	0	-	0	-	0	-
24H,0-24	0	0	-	0	-	0	-	0	-	0	-

23106	ARUNDEL	Site No: 23106001	Location	Site 1, Dalloway Road, Arundel (LC 7)							
Tue 19-Jun-18 to Mon 25-Jun-18		Channel: Northbound									
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Mon 25-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
05:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
06:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
07:00	13	1	7.7	10	76.9	2	15.4	0	0.0	0	0.0
08:00	19	1	5.3	17	89.5	0	0.0	1	5.3	0	0.0
09:00	10	0	0.0	10	100.0	0	0.0	0	0.0	0	0.0
10:00	21	0	0.0	19	90.5	1	4.8	1	4.8	0	0.0
11:00	9	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0
12:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
13:00	11	1	9.1	10	90.9	0	0.0	0	0.0	0	0.0
14:00	8	1	12.5	5	62.5	1	12.5	1	12.5	0	0.0
15:00	6	0	0.0	4	66.7	2	33.3	0	0.0	0	0.0
16:00	12	1	8.3	6	50.0	3	25.0	2	16.7	0	0.0
17:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
18:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
19:00	4	0	0.0	3	75.0	0	0.0	1	25.0	0	0.0
20:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
21:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	121	5	4.1	101	83.5	10	8.3	5	4.1	0	0.0
16H,6-22	137	5	3.7	114	83.2	12	8.8	6	4.4	0	0.0
16H,6-24	137	5	3.7	114	83.2	12	8.8	6	4.4	0	0.0
24H,0-24	139	5	3.6	116	83.5	12	8.6	6	4.3	0	0.0

23106	ARUNDEL	Site No: 23106001	Location	Site 1, Dalloway Road, Arundel (LC 7)
Tue 19-Jun-18 to Mon 25-Jun-18		Channel: Northbound		

TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Daily Totals											
Tue 19-Jun-18	149	5	3.4	127	85.2	11	7.4	6	4.0	0	0.0
Wed 20-Jun-18	151	7	4.6	129	85.4	8	5.3	7	4.6	0	0.0
Thu 21-Jun-18	152	3	2.0	134	88.2	6	4.0	9	5.9	0	0.0
Fri 22-Jun-18	139	1	0.7	123	88.5	7	5.0	8	5.8	0	0.0
Sat 23-Jun-18	48	2	4.2	41	85.4	2	4.2	0	0.0	3	6.3
Sun 24-Jun-18	0	0	-	0	-	0	-	0	-	0	-
Mon 25-Jun-18	139	5	3.6	116	83.5	12	8.6	6	4.3	0	0.0
Total Vehicles											
[--]	778	23	2.6	670	73.7	46	4.9	36	3.5	3	0.9



23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Northbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Tue 19-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	-	23.5	-	0	0	0	0	1	0	0	0	0	0	0	0
05:00	1	-	23.5	-	0	0	0	0	1	0	0	0	0	0	0	0
06:00	6	-	19.3	2.5	0	0	0	5	1	0	0	0	0	0	0	0
07:00	12	20.4	18.9	2	0	0	0	11	1	0	0	0	0	0	0	0
08:00	24	23.4	18.9	4.4	0	0	6	11	6	1	0	0	0	0	0	0
09:00	12	20.1	17.3	3.4	0	0	4	7	1	0	0	0	0	0	0	0
10:00	17	19.3	14.7	4.7	0	4	6	6	1	0	0	0	0	0	0	0
11:00	8	-	9.5	3.9	2	3	3	0	0	0	0	0	0	0	0	0
12:00	5	-	19.5	5.6	0	0	1	3	0	1	0	0	0	0	0	0
13:00	9	-	25	18.3	3	0	0	2	0	0	0	0	4	0	0	0
14:00	10	21	13.5	6.4	0	5	2	1	2	0	0	0	0	0	0	0
15:00	11	22.4	16.7	6.2	0	3	1	4	3	0	0	0	0	0	0	0
16:00	12	22.2	18.5	4.5	0	1	1	7	3	0	0	0	0	0	0	0
17:00	2	-	18.5	1.8	0	0	0	2	0	0	0	0	0	0	0	0
18:00	5	-	22.5	2.6	0	0	0	1	4	0	0	0	0	0	0	0
19:00	7	-	17.1	4.9	0	1	1	4	1	0	0	0	0	0	0	0
20:00	3	-	16.8	3.1	0	0	1	2	0	0	0	0	0	0	0	0
21:00	4	-	21	3.2	0	0	0	2	2	0	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	127	22.8	17.5	7.2	5	16	24	55	21	2	0	0	4	0	0	0
16H,6-22	147	22.7	17.7	6.8	5	17	26	68	25	2	0	0	4	0	0	0
18H,6-24	147	22.7	17.7	6.8	5	17	26	68	25	2	0	0	4	0	0	0
24H,0-24	149	22.9	17.7	6.8	5	17	26	68	27	2	0	0	4	0	0	0

23106	ARUNDEL				Site No: 23106001					Location Site 1, Dalloway Road, Arundel (LC 7)						
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Northbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Wed 20-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	-	23.5	-	0	0	0	0	1	0	0	0	0	0	0	0
06:00	6	-	19.3	2.5	0	0	0	5	1	0	0	0	0	0	0	0
07:00	9	-	19.6	3.6	0	0	1	5	3	0	0	0	0	0	0	0
08:00	22	23.6	19.9	3.5	0	0	2	12	8	0	0	0	0	0	0	0
09:00	9	-	16.8	3.8	0	0	4	4	1	0	0	0	0	0	0	0
10:00	9	-	15.2	3.8	0	1	4	4	0	0	0	0	0	0	0	0
11:00	8	-	16	4.8	0	1	3	3	1	0	0	0	0	0	0	0
12:00	14	20.7	18.1	3.4	0	0	3	9	2	0	0	0	0	0	0	0
13:00	13	20	16.6	4.1	0	1	4	7	1	0	0	0	0	0	0	0
14:00	13	21.9	18.1	4.1	0	0	4	6	3	0	0	0	0	0	0	0
15:00	10	20.2	17.5	3.5	0	0	3	6	1	0	0	0	0	0	0	0
16:00	10	23.5	19.5	4.2	0	0	2	4	4	0	0	0	0	0	0	0
17:00	5	-	19.5	2.6	0	0	0	4	1	0	0	0	0	0	0	0
18:00	13	22.9	18.5	4.3	0	0	4	5	4	0	0	0	0	0	0	0
19:00	3	-	20.2	3.1	0	0	0	2	1	0	0	0	0	0	0	0
20:00	2	-	16	3.5	0	0	1	1	0	0	0	0	0	0	0	0
21:00	2	-	18.5	7.1	0	0	1	0	1	0	0	0	0	0	0	0
22:00	1	-	18.5	-	0	0	0	1	0	0	0	0	0	0	0	0
23:00	1	-	8.5	-	0	1	0	0	0	0	0	0	0	0	0	0
12H,7-19	135	22.4	18.1	4	0	3	34	69	29	0	0	0	0	0	0	0
16H,6-22	148	22.5	18.2	3.9	0	3	36	77	32	0	0	0	0	0	0	0
18H,6-24	150	22.4	18.1	4	0	4	36	78	32	0	0	0	0	0	0	0
24H,0-24	151	22.5	18.1	4	0	4	36	78	33	0	0	0	0	0	0	0

23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Northbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Thu 21-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	8	-	19.1	3.5	0	0	1	5	2	0	0	0	0	0	0	0
07:00	11	22.4	19.9	2.8	0	0	0	8	3	0	0	0	0	0	0	0
08:00	31	24	20.3	3.4	0	0	2	16	13	0	0	0	0	0	0	0
09:00	13	19.9	17.7	4.2	0	1	2	8	2	0	0	0	0	0	0	0
10:00	14	23.4	17.8	5.7	0	2	3	4	5	0	0	0	0	0	0	0
11:00	5	-	20.5	3.1	0	0	0	3	2	0	0	0	0	0	0	0
12:00	12	19.6	16	4.2	0	2	2	8	0	0	0	0	0	0	0	0
13:00	3	-	16.8	3.1	0	0	1	2	0	0	0	0	0	0	0	0
14:00	5	-	17.5	5.6	0	1	0	3	1	0	0	0	0	0	0	0
15:00	8	-	21.6	4.7	0	0	1	2	4	1	0	0	0	0	0	0
16:00	11	23.9	19.4	4.6	0	0	3	3	5	0	0	0	0	0	0	0
17:00	7	-	20.6	5.1	0	0	2	0	5	0	0	0	0	0	0	0
18:00	12	20.3	18.5	4	0	0	2	9	0	1	0	0	0	0	0	0
19:00	7	-	19.9	2.9	0	0	0	5	2	0	0	0	0	0	0	0
20:00	3	-	20.2	3.1	0	0	0	2	1	0	0	0	0	0	0	0
21:00	2	-	16	3.5	0	0	1	1	0	0	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	132	23.7	19	4.4	0	6	18	66	40	2	0	0	0	0	0	0
16H,6-22	152	23.6	19.1	4.2	0	6	20	79	45	2	0	0	0	0	0	0
18H,6-24	152	23.6	19.1	4.2	0	6	20	79	45	2	0	0	0	0	0	0
24H,0-24	152	23.6	19.1	4.2	0	6	20	79	45	2	0	0	0	0	0	0

23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Northbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Fri 22-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	-	8.5	-	0	1	0	0	0	0	0	0	0	0	0	0
06:00	6	-	20.2	3	0	0	0	4	2	0	0	0	0	0	0	0
07:00	17	24.9	20.6	5.2	0	1	2	4	9	1	0	0	0	0	0	0
08:00	20	24.1	19.1	5.4	1	0	4	6	9	0	0	0	0	0	0	0
09:00	7	-	22.1	4	0	0	0	3	3	1	0	0	0	0	0	0
10:00	12	20.3	18.9	2.9	0	0	1	9	2	0	0	0	0	0	0	0
11:00	7	-	18.5	5.2	0	0	2	4	0	1	0	0	0	0	0	0
12:00	9	-	20.2	2.9	0	0	0	6	3	0	0	0	0	0	0	0
13:00	11	20.6	15.3	4.8	0	1	7	1	2	0	0	0	0	0	0	0
14:00	6	-	19.3	6.8	0	1	1	0	4	0	0	0	0	0	0	0
15:00	7	-	22.1	4	0	0	0	3	3	1	0	0	0	0	0	0
16:00	6	-	18.5	5.6	0	1	0	3	2	0	0	0	0	0	0	0
17:00	8	-	19.1	4.4	0	0	2	3	3	0	0	0	0	0	0	0
18:00	11	24.2	21.2	3	0	0	0	5	6	0	0	0	0	0	0	0
19:00	7	-	22.1	2.9	0	0	0	2	5	0	0	0	0	0	0	0
20:00	2	-	23.5	1.8	0	0	0	0	2	0	0	0	0	0	0	0
21:00	2	-	16	3.5	0	0	1	1	0	0	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	121	24.4	19.5	4.8	1	4	19	47	48	4	0	0	0	0	0	0
16H,6-22	138	24.4	19.7	4.6	1	4	20	54	55	4	0	0	0	0	0	0
18H,6-24	138	24.4	19.7	4.6	1	4	20	54	55	4	0	0	0	0	0	0
24H,0-24	139	24.4	19.6	4.7	1	5	20	54	55	4	0	0	0	0	0	0

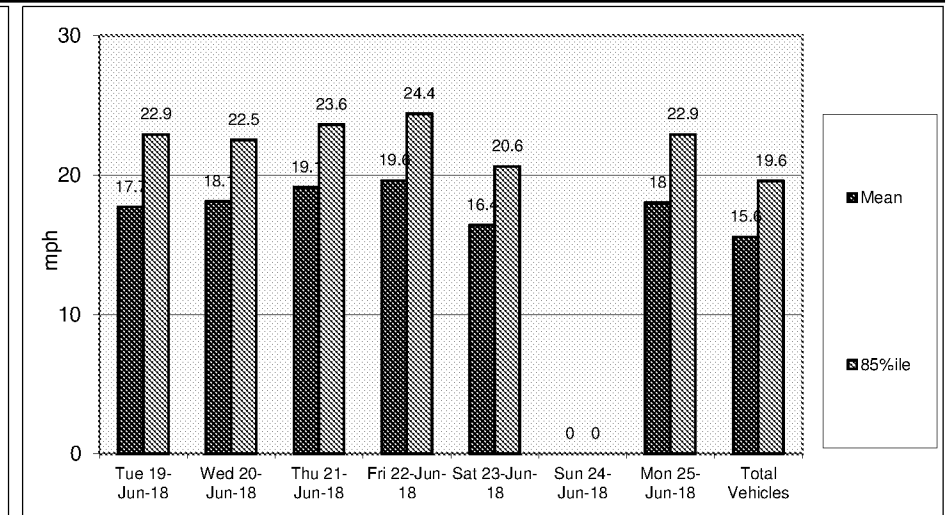
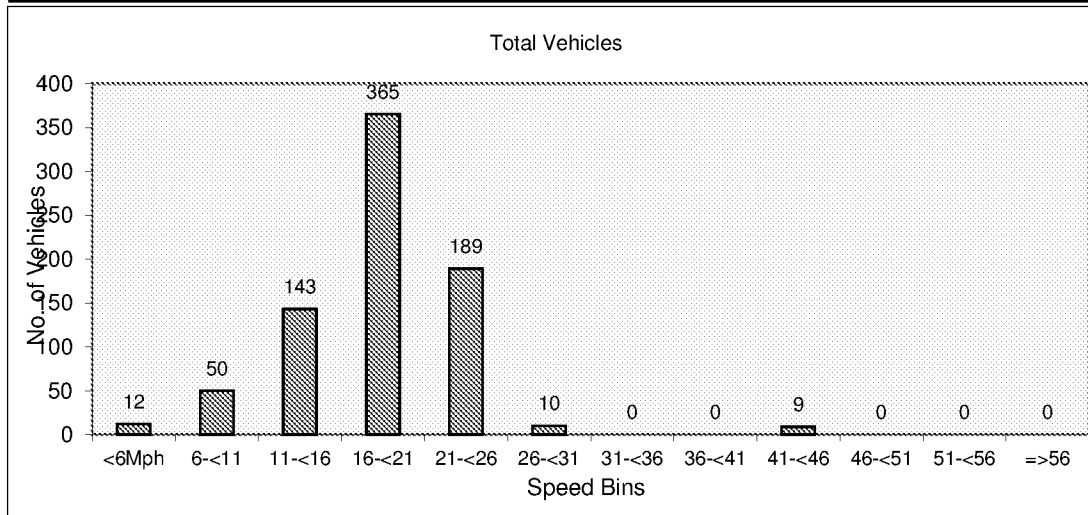
23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Northbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Sat 23-Jun-18																
00:00	2	-	18.5	1.8	0	0	0	2	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	3	-	20.2	3.1	0	0	0	2	1	0	0	0	0	0	0	0
07:00	5	-	18.5	1.6	0	0	0	5	0	0	0	0	0	0	0	0
08:00	12	23.1	19.3	3.9	0	0	2	6	4	0	0	0	0	0	0	0
09:00	5	-	16.5	3.1	0	0	2	3	0	0	0	0	0	0	0	0
10:00	9	-	14.6	5	0	2	4	2	1	0	0	0	0	0	0	0
11:00	3	-	8.9	4.4	1	1	1	0	0	0	0	0	0	0	0	0
12:00	4	-	17.3	2.8	0	0	1	3	0	0	0	0	0	0	0	0
13:00	2	-	11.7	9.7	1	0	0	1	0	0	0	0	0	0	0	0
14:00	3	-	10.2	3.1	0	2	1	0	0	0	0	0	0	0	0	0
15:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	43	20.5	16	5.1	2	5	11	20	5	0	0	0	0	0	0	0
16H,6-22	46	20.7	16.3	5.1	2	5	11	22	6	0	0	0	0	0	0	0
18H,6-24	46	20.7	16.3	5.1	2	5	11	22	6	0	0	0	0	0	0	0
24H,0-24	48	20.6	16.4	5	2	5	11	24	6	0	0	0	0	0	0	0

23106	ARUNDEL				Site No: 23106001				Location Site 1, Dalloway Road, Arundel (LC 7)							
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Northbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Sun 24-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
16H,6-22	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
18H,6-24	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
24H,0-24	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0

23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Northbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Mon 25-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	-	23.5	-	0	0	0	0	1	0	0	0	0	0	0	0
05:00	1	-	23.5	-	0	0	0	0	1	0	0	0	0	0	0	0
06:00	5	-	19.5	2.6	0	0	0	4	1	0	0	0	0	0	0	0
07:00	13	20.4	18.9	2	0	0	0	12	1	0	0	0	0	0	0	0
08:00	19	23.1	18.2	4.8	0	0	7	7	4	1	0	0	0	0	0	0
09:00	10	19.8	16.5	3.8	0	0	5	4	1	0	0	0	0	0	0	0
10:00	21	19.7	15.6	4.3	0	3	7	10	1	0	0	0	0	0	0	0
11:00	9	-	10.9	3.6	1	3	5	0	0	0	0	0	0	0	0	0
12:00	4	-	19.8	6.4	0	0	1	2	0	1	0	0	0	0	0	0
13:00	11	43.9	26.1	17.5	3	0	0	3	0	0	0	0	5	0	0	0
14:00	8	-	14.1	6.9	0	4	1	1	2	0	0	0	0	0	0	0
15:00	6	-	18.5	6.4	0	1	1	1	3	0	0	0	0	0	0	0
16:00	12	20.3	17.7	3.8	0	1	1	9	1	0	0	0	0	0	0	0
17:00	2	-	18.5	1.8	0	0	0	2	0	0	0	0	0	0	0	0
18:00	6	-	22.7	2.5	0	0	0	1	5	0	0	0	0	0	0	0
19:00	4	-	14.8	4.9	0	1	1	2	0	0	0	0	0	0	0	0
20:00	3	-	16.8	3.1	0	0	1	2	0	0	0	0	0	0	0	0
21:00	4	-	21	3.2	0	0	0	2	2	0	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	121	22.8	17.8	7.4	4	12	28	52	18	2	0	0	5	0	0	0
16H,6-22	137	22.7	17.9	7.1	4	13	30	62	21	2	0	0	5	0	0	0
18H,6-24	137	22.7	17.9	7.1	4	13	30	62	21	2	0	0	5	0	0	0
24H,0-24	139	22.9	18	7.1	4	13	30	62	23	2	0	0	5	0	0	0

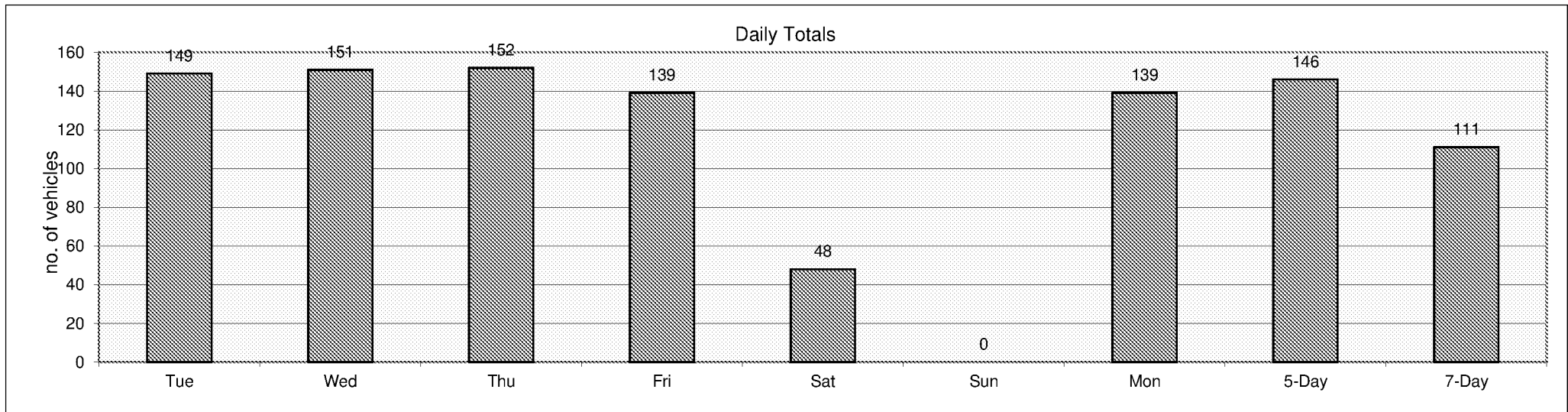
23106 ARUNDEL Site No: 23106001 Location Site 1, Dalloway Road, Arundel (LC 7)
 Tue 19-Jun-18 to Mon 25-Jun-18 Channel: Northbound

Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Daily Totals																
Tue 19-Jun-18	149	22.9	17.7	6.8	5	17	26	68	27	2	0	0	4	0	0	0
Wed 20-Jun-18	151	22.5	18.1	4	0	4	36	78	33	0	0	0	0	0	0	0
Thu 21-Jun-18	152	23.6	19.1	4.2	0	6	20	79	45	2	0	0	0	0	0	0
Fri 22-Jun-18	139	24.4	19.6	4.7	1	5	20	54	55	4	0	0	0	0	0	0
Sat 23-Jun-18	48	20.6	16.4	5	2	5	11	24	6	0	0	0	0	0	0	0
Sun 24-Jun-18	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
Mon 25-Jun-18	139	22.9	18	7.1	4	13	30	62	23	2	0	0	5	0	0	0
Total Vehicles																
[--]	778	19.6	15.6	4.5	12	50	143	365	189	10	0	0	9	0	0	0



23106	ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)		
			Channel: Northbound						
TIME PERIOD	Tue 19/06/18	Wed 20/06/18	Thu 21/06/18	Fri 22/06/18	Sat 23/06/18	Sun 24/06/18	Mon 25/06/18	5-Day Av	7-Day Av
Week Begin: 19-Jun-18									
00:00	0	0	0	0	2	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0
04:00	1	0	0	0	0	0	1	0	0
05:00	1	1	0	1	0	0	1	1	1
06:00	6	6	8	6	3	0	5	6	5
07:00	12	9	11	17	5	0	13	12	10
08:00	24	22	31	20	12	0	19	23	18
09:00	12	9	13	7	5	0	10	10	8
10:00	17	9	14	12	9	0	21	15	12
11:00	8	8	5	7	3	0	9	7	6
12:00	5	14	12	9	4	0	4	9	7
13:00	9	13	3	11	2	0	11	9	7
14:00	10	13	5	6	3	0	8	8	6
15:00	11	10	8	7	0	0	6	8	6
16:00	12	10	11	6	0	0	12	10	7
17:00	2	5	7	8	0	0	2	5	3
18:00	5	13	12	11	0	0	6	9	7
19:00	7	3	7	7	0	0	4	6	4
20:00	3	2	3	2	0	0	3	3	2
21:00	4	2	2	2	0	0	4	3	2
22:00	0	1	0	0	0	0	0	0	0
23:00	0	1	0	0	0	0	0	0	0
12H,7-19	127	135	132	121	43	0	121	127	97
16H,6-22	147	148	152	138	46	0	137	144	110
18H,6-24	147	150	152	138	46	0	137	145	110
24H,0-24	149	151	152	139	48	0	139	146	111
Am	08:00	08:00	08:00	08:00	08:00	05:00	10:00	-	-
Peak	24	22	31	20	12	0	21	24	19
Pm	16:00	12:00	18:00	18:00	12:00	23:00	16:00	-	-
Peak	12	14	12	11	4	0	12	12	9

23106	ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)		
			Channel: Northbound						
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIOD	19/06/18	20/06/18	21/06/18	22/06/18	23/06/18	24/06/18	25/06/18	Av	Av



23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Southbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Tue 19-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
07:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0
08:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0
09:00	7	1	14.3	4	57.1	0	0.0	2	28.6	0	0.0
10:00	15	0	0.0	11	73.3	0	0.0	4	26.7	0	0.0
11:00	13	0	0.0	11	84.6	1	7.7	1	7.7	0	0.0
12:00	11	1	9.1	10	90.9	0	0.0	0	0.0	0	0.0
13:00	8	1	12.5	5	62.5	0	0.0	2	25.0	0	0.0
14:00	15	2	13.3	12	80.0	0	0.0	1	6.7	0	0.0
15:00	14	1	7.1	13	92.9	0	0.0	0	0.0	0	0.0
16:00	30	0	0.0	24	80.0	2	6.7	4	13.3	0	0.0
17:00	7	0	0.0	6	85.7	0	0.0	1	14.3	0	0.0
18:00	3	0	0.0	2	66.7	0	0.0	1	33.3	0	0.0
19:00	9	1	11.1	7	77.8	0	0.0	1	11.1	0	0.0
20:00	11	0	0.0	10	90.9	0	0.0	1	9.1	0	0.0
21:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0
22:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	139	6	4.3	112	80.6	3	2.2	18	13.0	0	0.0
16H,6-22	170	7	4.1	139	81.8	3	1.8	21	12.4	0	0.0
18H,6-24	175	7	4.0	144	82.3	3	1.7	21	12.0	0	0.0
24H,0-24	175	7	4.0	144	82.3	3	1.7	21	12.0	0	0.0

23106	ARUNDEL	Site No: 23106001	Location	Site 1, Dalloway Road, Arundel (LC 7)							
Tue 19-Jun-18 to Mon 25-Jun-18		Channel: Southbound									
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Wed 20-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
07:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
08:00	10	0	0.0	9	90.0	0	0.0	1	10.0	0	0.0
09:00	11	0	0.0	9	81.8	0	0.0	2	18.2	0	0.0
10:00	7	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0
11:00	12	0	0.0	11	91.7	0	0.0	1	8.3	0	0.0
12:00	18	2	11.1	14	77.8	0	0.0	2	11.1	0	0.0
13:00	18	2	11.1	12	66.7	0	0.0	4	22.2	0	0.0
14:00	17	1	5.9	14	82.4	0	0.0	2	11.8	0	0.0
15:00	17	1	5.9	14	82.4	0	0.0	2	11.8	0	0.0
16:00	15	0	0.0	10	66.7	0	0.0	5	33.3	0	0.0
17:00	25	1	4.0	20	80.0	0	0.0	4	16.0	0	0.0
18:00	16	0	0.0	9	56.3	1	6.3	6	37.5	0	0.0
19:00	7	1	14.3	6	85.7	0	0.0	0	0.0	0	0.0
20:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0
21:00	6	1	16.7	5	83.3	0	0.0	0	0.0	0	0.0
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
12H,7-19	170	7	4.1	133	78.2	1	0.6	29	17.1	0	0.0
16H,6-22	192	9	4.7	152	79.2	1	0.5	30	15.6	0	0.0
18H,6-24	193	9	4.7	153	79.3	1	0.5	30	15.5	0	0.0
24H,0-24	193	9	4.7	153	79.3	1	0.5	30	15.5	0	0.0

23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Southbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Thu 21-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	7	1	14.3	5	71.4	0	0.0	1	14.3	0	0.0
07:00	3	0	0.0	1	33.3	0	0.0	2	66.7	0	0.0
08:00	8	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0
09:00	22	1	4.6	19	86.4	0	0.0	2	9.1	0	0.0
10:00	13	1	7.7	11	84.6	0	0.0	1	7.7	0	0.0
11:00	5	0	0.0	4	80.0	0	0.0	1	20.0	0	0.0
12:00	9	1	11.1	7	77.8	0	0.0	1	11.1	0	0.0
13:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
14:00	15	0	0.0	14	93.3	0	0.0	1	6.7	0	0.0
15:00	10	0	0.0	10	100.0	0	0.0	0	0.0	0	0.0
16:00	17	0	0.0	13	76.5	0	0.0	4	23.5	0	0.0
17:00	14	1	7.1	10	71.4	0	0.0	3	21.4	0	0.0
18:00	18	1	5.6	13	72.2	0	0.0	4	22.2	0	0.0
19:00	21	2	9.5	17	81.0	0	0.0	2	9.5	0	0.0
20:00	16	0	0.0	15	93.8	0	0.0	1	6.3	0	0.0
21:00	7	0	0.0	6	85.7	0	0.0	1	14.3	0	0.0
22:00	4	0	0.0	3	75.0	0	0.0	1	25.0	0	0.0
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	139	5	3.6	115	82.7	0	0.0	19	13.7	0	0.0
16H,6-22	190	8	4.2	158	83.2	0	0.0	24	12.6	0	0.0
18H,6-24	194	8	4.1	161	83.0	0	0.0	25	12.9	0	0.0
24H,0-24	194	8	4.1	161	83.0	0	0.0	25	12.9	0	0.0

23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Southbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Fri 22-Jun-18											
00:00	1	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	4	0	0.0	3	75.0	0	0.0	1	25.0	0	0.0
07:00	4	0	0.0	2	50.0	0	0.0	2	50.0	0	0.0
08:00	15	0	0.0	13	86.7	0	0.0	2	13.3	0	0.0
09:00	8	1	12.5	6	75.0	0	0.0	1	12.5	0	0.0
10:00	5	0	0.0	3	60.0	0	0.0	2	40.0	0	0.0
11:00	13	0	0.0	13	100.0	0	0.0	0	0.0	0	0.0
12:00	13	0	0.0	11	84.6	0	0.0	2	15.4	0	0.0
13:00	10	0	0.0	9	90.0	0	0.0	1	10.0	0	0.0
14:00	11	0	0.0	11	100.0	0	0.0	0	0.0	0	0.0
15:00	11	1	9.1	8	72.7	0	0.0	2	18.2	0	0.0
16:00	9	0	0.0	7	77.8	0	0.0	2	22.2	0	0.0
17:00	22	1	4.6	17	77.3	0	0.0	4	18.2	0	0.0
18:00	16	0	0.0	12	75.0	0	0.0	4	25.0	0	0.0
19:00	15	0	0.0	10	66.7	0	0.0	5	33.3	0	0.0
20:00	17	1	5.9	14	82.4	0	0.0	2	11.8	0	0.0
21:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0
22:00	4	0	0.0	3	75.0	0	0.0	1	25.0	0	0.0
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	137	3	2.2	112	81.8	0	0.0	22	16.1	0	0.0
16H,6-22	181	4	2.2	146	80.7	0	0.0	31	17.1	0	0.0
16H,6-24	185	4	2.2	149	80.5	0	0.0	32	17.3	0	0.0
24H,0-24	186	5	2.7	149	80.1	0	0.0	32	17.2	0	0.0

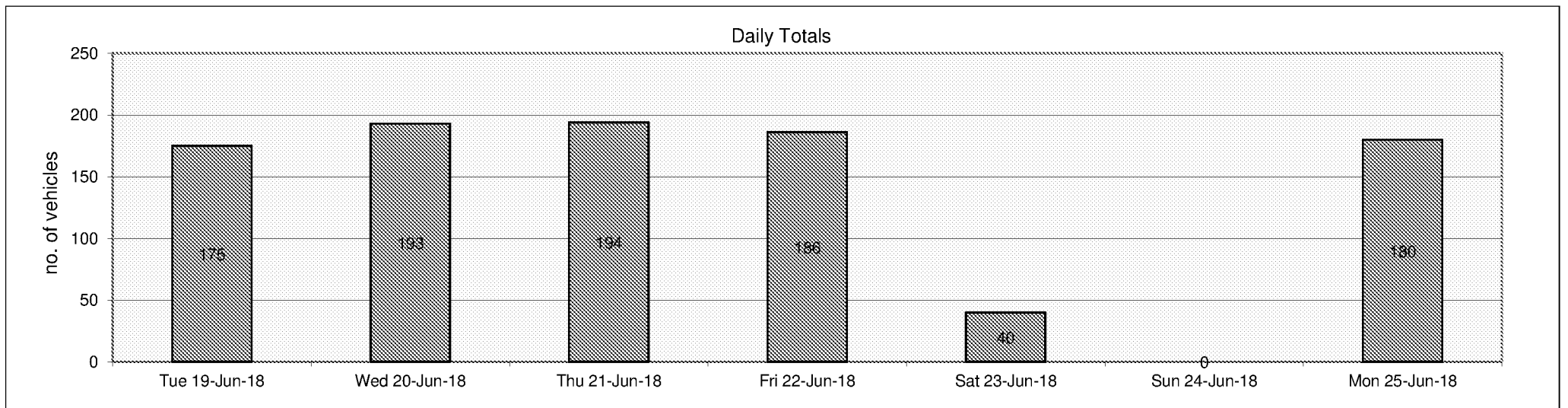
23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Southbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sat 23-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	3	0	0.0	0	0.0	0	0.0	3	100.0	0	0.0
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
07:00	5	2	40.0	3	60.0	0	0.0	0	0.0	0	0.0
08:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
09:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
10:00	9	0	0.0	4	44.4	0	0.0	5	55.6	0	0.0
11:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
12:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
13:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
14:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
15:00	0	0	-	0	-	0	-	0	-	0	-
16:00	0	0	-	0	-	0	-	0	-	0	-
17:00	0	0	-	0	-	0	-	0	-	0	-
18:00	0	0	-	0	-	0	-	0	-	0	-
19:00	0	0	-	0	-	0	-	0	-	0	-
20:00	0	0	-	0	-	0	-	0	-	0	-
21:00	0	0	-	0	-	0	-	0	-	0	-
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	36	2	5.6	29	80.6	0	0.0	5	13.9	0	0.0
16H,6-22	37	2	5.4	30	81.1	0	0.0	5	13.5	0	0.0
18H,6-24	37	2	5.4	30	81.1	0	0.0	5	13.5	0	0.0
24H,0-24	40	2	5.0	30	75.0	0	0.0	8	20.0	0	0.0

23106		ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)			
Tue 19-Jun-18 to Mon 25-Jun-18				Channel: Southbound							
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sun 24-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	0	0	-	0	-	0	-	0	-	0	-
06:00	0	0	-	0	-	0	-	0	-	0	-
07:00	0	0	-	0	-	0	-	0	-	0	-
08:00	0	0	-	0	-	0	-	0	-	0	-
09:00	0	0	-	0	-	0	-	0	-	0	-
10:00	0	0	-	0	-	0	-	0	-	0	-
11:00	0	0	-	0	-	0	-	0	-	0	-
12:00	0	0	-	0	-	0	-	0	-	0	-
13:00	0	0	-	0	-	0	-	0	-	0	-
14:00	0	0	-	0	-	0	-	0	-	0	-
15:00	0	0	-	0	-	0	-	0	-	0	-
16:00	0	0	-	0	-	0	-	0	-	0	-
17:00	0	0	-	0	-	0	-	0	-	0	-
18:00	0	0	-	0	-	0	-	0	-	0	-
19:00	0	0	-	0	-	0	-	0	-	0	-
20:00	0	0	-	0	-	0	-	0	-	0	-
21:00	0	0	-	0	-	0	-	0	-	0	-
22:00	0	0	-	0	-	0	-	0	-	0	-
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	0	0	-	0	-	0	-	0	-	0	-
16H,6-22	0	0	-	0	-	0	-	0	-	0	-
18H,6-24	0	0	-	0	-	0	-	0	-	0	-
24H,0-24	0	0	-	0	-	0	-	0	-	0	-

23106	ARUNDEL	Site No: 23106001	Location	Site 1, Dalloway Road, Arundel (LC 7)							
Tue 19-Jun-18 to Mon 25-Jun-18		Channel: Southbound									
TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Mon 25-Jun-18											
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	0	0	-	0	-	0	-	0	-	0	-
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	0	0	-	0	-	0	-	0	-	0	-
05:00	1	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0
06:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
07:00	8	0	0.0	7	87.5	0	0.0	1	12.5	0	0.0
08:00	7	0	0.0	6	85.7	0	0.0	1	14.3	0	0.0
09:00	8	1	12.5	5	62.5	0	0.0	2	25.0	0	0.0
10:00	15	0	0.0	11	73.3	0	0.0	4	26.7	0	0.0
11:00	12	0	0.0	10	83.3	1	8.3	1	8.3	0	0.0
12:00	15	1	6.7	14	93.3	0	0.0	0	0.0	0	0.0
13:00	8	1	12.5	5	62.5	0	0.0	2	25.0	0	0.0
14:00	18	3	16.7	14	77.8	0	0.0	1	5.6	0	0.0
15:00	11	1	9.1	10	90.9	0	0.0	0	0.0	0	0.0
16:00	26	0	0.0	21	80.8	1	3.9	4	15.4	0	0.0
17:00	9	0	0.0	8	88.9	0	0.0	1	11.1	0	0.0
18:00	5	0	0.0	3	60.0	0	0.0	2	40.0	0	0.0
19:00	8	1	12.5	6	75.0	0	0.0	1	12.5	0	0.0
20:00	11	0	0.0	10	90.9	0	0.0	1	9.1	0	0.0
21:00	11	0	0.0	10	90.9	0	0.0	1	9.1	0	0.0
22:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
23:00	0	0	-	0	-	0	-	0	-	0	-
12H,7-19	142	7	4.9	114	80.3	2	1.4	19	13.4	0	0.0
16H,6-22	176	8	4.6	144	81.8	2	1.1	22	12.5	0	0.0
18H,6-24	179	8	4.5	147	82.1	2	1.1	22	12.3	0	0.0
24H,0-24	180	9	5.0	147	81.7	2	1.1	22	12.2	0	0.0

23106	ARUNDEL	Site No: 23106001	Location	Site 1, Dalloway Road, Arundel (LC 7)
Tue 19-Jun-18 to Mon 25-Jun-18		Channel: Southbound		

TIME PERIOD	TOTAL VEHICLES	MOTOR-CYCLES	MOTOR-CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Daily Totals											
Tue 19-Jun-18	175	7	4.0	144	82.3	3	1.7	21	12.0	0	0.0
Wed 20-Jun-18	193	9	4.7	153	79.3	1	0.5	30	15.5	0	0.0
Thu 21-Jun-18	194	8	4.1	161	83.0	0	0.0	25	12.9	0	0.0
Fri 22-Jun-18	186	5	2.7	149	80.1	0	0.0	32	17.2	0	0.0
Sat 23-Jun-18	40	2	5.0	30	75.0	0	0.0	8	20.0	0	0.0
Sun 24-Jun-18	0	0	-	0	-	0	-	0	-	0	-
Mon 25-Jun-18	180	9	5.0	147	81.7	2	1.1	22	12.2	0	0.0
Total Vehicles											
[--]	968	40	3.6	784	68.8	6	0.5	138	12.8	0	0.0



23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Southbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Tue 19-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	3	-	13.5	5	0	1	1	1	0	0	0	0	0	0	0	0
07:00	8	-	15.4	3	0	0	5	3	0	0	0	0	0	0	0	0
08:00	8	-	14.8	2.7	0	0	6	2	0	0	0	0	0	0	0	0
09:00	7	-	16.4	3.1	0	0	3	4	0	0	0	0	0	0	0	0
10:00	15	19.5	15.5	4.4	0	2	6	6	1	0	0	0	0	0	0	0
11:00	13	14.9	10.8	4.1	0	9	2	2	0	0	0	0	0	0	0	0
12:00	11	15.3	14.4	4	0	1	8	1	1	0	0	0	0	0	0	0
13:00	8	-	13	4	1	0	6	1	0	0	0	0	0	0	0	0
14:00	15	20.6	17.2	4.6	0	2	2	9	2	0	0	0	0	0	0	0
15:00	14	20.7	18.9	2.8	0	0	1	11	2	0	0	0	0	0	0	0
16:00	30	20.2	16.2	4.1	0	2	13	12	3	0	0	0	0	0	0	0
17:00	7	-	16.4	5	0	1	2	3	1	0	0	0	0	0	0	0
18:00	3	-	18.5	1.7	0	0	0	3	0	0	0	0	0	0	0	0
19:00	9	-	15.7	3	0	0	5	4	0	0	0	0	0	0	0	0
20:00	11	19.9	18	2.1	0	0	1	10	0	0	0	0	0	0	0	0
21:00	8	-	15.4	4.7	0	1	4	2	1	0	0	0	0	0	0	0
22:00	5	-	13.5	1.6	0	0	5	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	139	20	15.6	4.3	1	17	54	57	10	0	0	0	0	0	0	0
16H,6-22	170	20	15.7	4.2	1	19	65	74	11	0	0	0	0	0	0	0
18H,6-24	175	19.9	15.7	4.2	1	19	70	74	11	0	0	0	0	0	0	0
24H,0-24	175	19.9	15.7	4.2	1	19	70	74	11	0	0	0	0	0	0	0

23106	ARUNDEL				Site No: 23106001					Location Site 1, Dalloway Road, Arundel (LC 7)						
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Southbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Wed 20-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	1	-	13.5	-	0	0	1	0	0	0	0	0	0	0	0	0
07:00	4	-	16	3.2	0	0	2	2	0	0	0	0	0	0	0	0
08:00	10	19.9	18	2.1	0	0	1	9	0	0	0	0	0	0	0	0
09:00	11	19.5	16.2	3.7	0	1	3	7	0	0	0	0	0	0	0	0
10:00	7	-	14.9	2.9	0	0	5	2	0	0	0	0	0	0	0	0
11:00	12	17.2	14.3	3.2	0	1	8	3	0	0	0	0	0	0	0	0
12:00	18	18.7	14.3	4.2	0	4	7	7	0	0	0	0	0	0	0	0
13:00	18	18.8	13.5	5.1	0	7	5	5	1	0	0	0	0	0	0	0
14:00	17	20.1	16.5	4.7	1	1	3	11	1	0	0	0	0	0	0	0
15:00	17	23	20	2.8	0	0	0	12	5	0	0	0	0	0	0	0
16:00	15	23.3	18.5	5.2	0	2	1	7	5	0	0	0	0	0	0	0
17:00	25	21.8	18.1	4.3	0	2	3	15	5	0	0	0	0	0	0	0
18:00	16	24.6	20.4	5	0	1	1	6	7	1	0	0	0	0	0	0
19:00	7	-	17.8	2.4	0	0	1	6	0	0	0	0	0	0	0	0
20:00	8	-	17.9	3.5	0	0	2	5	1	0	0	0	0	0	0	0
21:00	6	-	21.8	5.3	0	0	1	1	3	1	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	1	-	8.5	-	0	1	0	0	0	0	0	0	0	0	0	0
12H,7-19	170	20.9	16.9	4.7	1	19	39	86	24	1	0	0	0	0	0	0
16H,6-22	192	21.1	17.1	4.6	1	19	44	98	28	2	0	0	0	0	0	0
18H,6-24	193	21.1	17.1	4.7	1	20	44	98	28	2	0	0	0	0	0	0
24H,0-24	193	21.1	17.1	4.7	1	20	44	98	28	2	0	0	0	0	0	0

23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Southbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Thu 21-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	7	-	12.8	2.4	0	1	6	0	0	0	0	0	0	0	0	0
07:00	3	-	20.2	3.1	0	0	0	2	1	0	0	0	0	0	0	0
08:00	8	-	19.1	2.3	0	0	0	7	1	0	0	0	0	0	0	0
09:00	22	20.8	18.3	3.9	0	2	0	17	3	0	0	0	0	0	0	0
10:00	13	19.8	17	3.5	0	1	2	10	0	0	0	0	0	0	0	0
11:00	5	-	20.5	3.1	0	0	0	3	2	0	0	0	0	0	0	0
12:00	9	-	17.9	5.4	0	1	2	3	3	0	0	0	0	0	0	0
13:00	5	-	17.5	2.6	0	0	1	4	0	0	0	0	0	0	0	0
14:00	15	23.8	20.2	3.9	0	0	1	9	4	1	0	0	0	0	0	0
15:00	10	22.7	19.5	3.5	0	0	1	6	3	0	0	0	0	0	0	0
16:00	17	22.2	18.8	4	0	1	1	11	4	0	0	0	0	0	0	0
17:00	14	23.8	19.2	4.6	0	0	4	4	6	0	0	0	0	0	0	0
18:00	18	20.5	17.9	3.3	0	0	4	12	2	0	0	0	0	0	0	0
19:00	21	22.4	19.2	3.2	0	0	2	14	5	0	0	0	0	0	0	0
20:00	16	18.6	15.1	3.3	0	1	9	6	0	0	0	0	0	0	0	0
21:00	7	-	13.5	1.5	0	0	7	0	0	0	0	0	0	0	0	0
22:00	4	-	17.3	4.9	0	0	2	1	1	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	139	22.5	18.7	3.8	0	5	16	88	29	1	0	0	0	0	0	0
16H,6-22	190	21.9	18	4	0	7	40	108	34	1	0	0	0	0	0	0
18H,6-24	194	21.9	18	4	0	7	42	109	35	1	0	0	0	0	0	0
24H,0-24	194	21.9	18	4	0	7	42	109	35	1	0	0	0	0	0	0

23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Southbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Fri 22-Jun-18																
00:00	1	-	13.5	-	0	0	1	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	4	-	12.3	2.8	0	1	3	0	0	0	0	0	0	0	0	0
07:00	4	-	16	6.5	0	1	1	1	1	0	0	0	0	0	0	0
08:00	15	20.1	17.2	3.8	0	1	3	10	1	0	0	0	0	0	0	0
09:00	8	-	17.9	5.1	0	1	1	4	2	0	0	0	0	0	0	0
10:00	5	-	14.8	6.1	1	0	1	3	0	0	0	0	0	0	0	0
11:00	13	19.9	18.5	3.2	0	0	2	9	2	0	0	0	0	0	0	0
12:00	13	20.3	17.7	3.7	0	1	1	10	1	0	0	0	0	0	0	0
13:00	10	19.3	15.5	4.4	0	1	5	3	1	0	0	0	0	0	0	0
14:00	11	15.6	14	3	0	1	8	2	0	0	0	0	0	0	0	0
15:00	11	20.6	17.6	4.6	0	1	2	6	2	0	0	0	0	0	0	0
16:00	9	-	18.5	5.2	0	1	1	4	3	0	0	0	0	0	0	0
17:00	22	22.5	19.2	3.8	0	0	3	14	4	1	0	0	0	0	0	0
18:00	16	19.6	15.5	4.8	1	1	6	7	1	0	0	0	0	0	0	0
19:00	15	23.7	19.5	4.1	0	0	3	6	6	0	0	0	0	0	0	0
20:00	17	19.6	16.4	3.4	0	1	5	11	0	0	0	0	0	0	0	0
21:00	8	-	13.5	1.5	0	0	8	0	0	0	0	0	0	0	0	0
22:00	4	-	19.8	4.9	0	0	1	1	2	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	137	20.9	17.1	4.4	2	9	34	73	18	1	0	0	0	0	0	0
16H,6-22	181	20.9	17	4.4	2	11	53	90	24	1	0	0	0	0	0	0
18H,6-24	185	20.9	17.1	4.4	2	11	54	91	26	1	0	0	0	0	0	0
24H,0-24	186	20.9	17	4.4	2	11	55	91	26	1	0	0	0	0	0	0

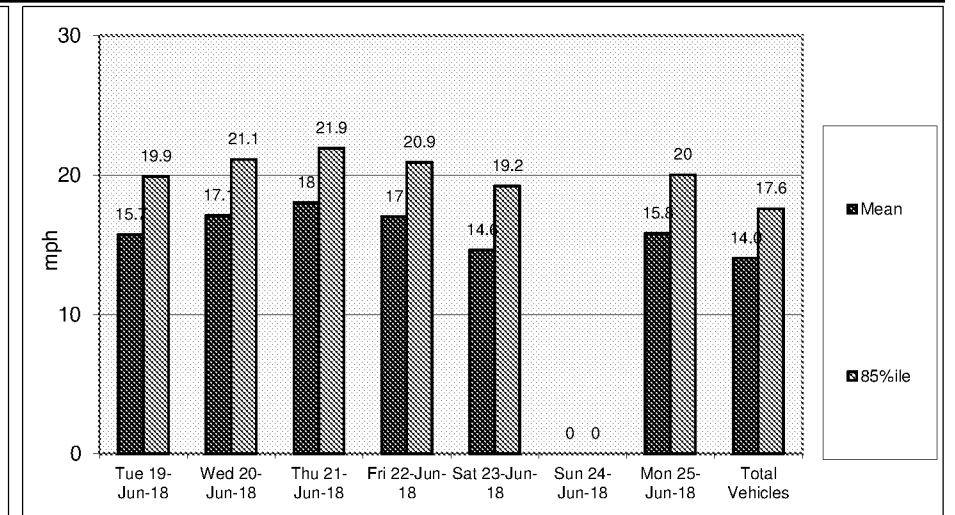
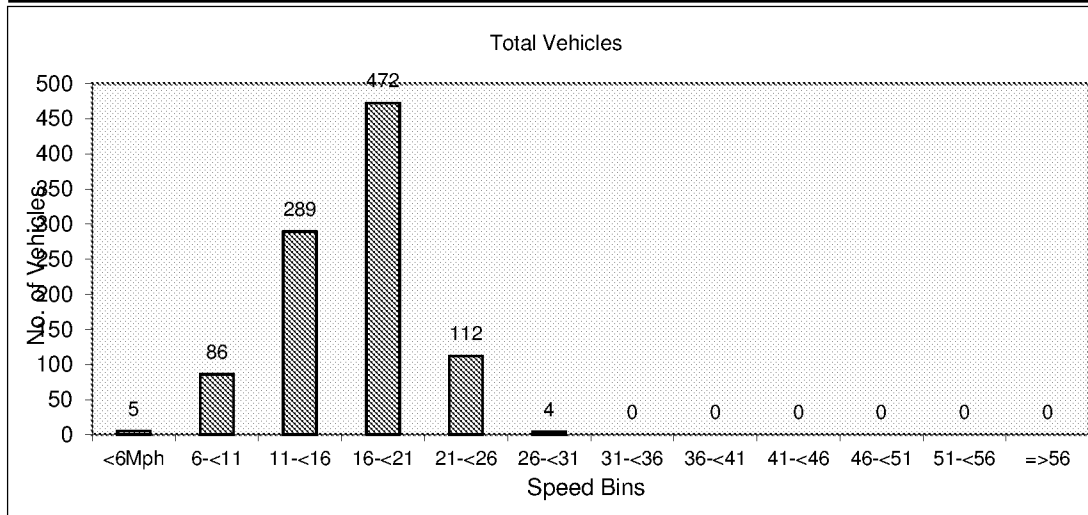
23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Southbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Sat 23-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	3	-	18.5	1.7	0	0	0	3	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	1	-	18.5	-	0	0	0	1	0	0	0	0	0	0	0	0
07:00	5	-	14.5	2.6	0	0	4	1	0	0	0	0	0	0	0	0
08:00	6	-	16	3.1	0	0	3	3	0	0	0	0	0	0	0	0
09:00	2	-	16	3.5	0	0	1	1	0	0	0	0	0	0	0	0
10:00	9	-	15.2	5.2	0	2	3	3	1	0	0	0	0	0	0	0
11:00	6	-	8.5	1.6	0	6	0	0	0	0	0	0	0	0	0	0
12:00	2	-	13.5	1.8	0	0	2	0	0	0	0	0	0	0	0	0
13:00	2	-	13.5	1.8	0	0	2	0	0	0	0	0	0	0	0	0
14:00	4	-	17.3	2.8	0	0	1	3	0	0	0	0	0	0	0	0
15:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	36	18.8	14.2	4.2	0	8	16	11	1	0	0	0	0	0	0	0
16H,6-22	37	18.8	14.3	4.2	0	8	16	12	1	0	0	0	0	0	0	0
18H,6-24	37	18.9	14.3	4.2	0	8	16	12	1	0	0	0	0	0	0	0
24H,0-24	40	19.2	14.6	4.3	0	8	16	15	1	0	0	0	0	0	0	0

23106	ARUNDEL				Site No: 23106001					Location Site 1, Dalloway Road, Arundel (LC 7)						
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Southbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Sun 24-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
16H,6-22	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
18H,6-24	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
24H,0-24	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0

23106		ARUNDEL			Site No: 23106001		Location Site 1, Dalloway Road, Arundel (LC 7)									
Tue 19-Jun-18 to Mon 25-Jun-18					Channel: Southbound											
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Mon 25-Jun-18																
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	-	18.5	-	0	0	0	1	0	0	0	0	0	0	0	0
06:00	4	-	12.3	4.9	0	2	1	1	0	0	0	0	0	0	0	0
07:00	8	-	15.4	3	0	0	5	3	0	0	0	0	0	0	0	0
08:00	7	-	14.9	2.9	0	0	5	2	0	0	0	0	0	0	0	0
09:00	8	-	17.3	2.7	0	0	2	6	0	0	0	0	0	0	0	0
10:00	15	19.5	15.5	4.4	0	2	6	6	1	0	0	0	0	0	0	0
11:00	12	15.3	10.6	4.2	0	9	1	2	0	0	0	0	0	0	0	0
12:00	15	19.1	14.8	4.6	0	2	9	2	2	0	0	0	0	0	0	0
13:00	8	-	13	4	1	0	6	1	0	0	0	0	0	0	0	0
14:00	18	20.7	18.5	3.7	0	1	1	13	3	0	0	0	0	0	0	0
15:00	11	20.6	19	3	0	0	1	8	2	0	0	0	0	0	0	0
16:00	26	19.5	15.6	3.8	0	2	12	11	1	0	0	0	0	0	0	0
17:00	9	-	17.4	4.3	0	1	1	6	1	0	0	0	0	0	0	0
18:00	5	-	18.5	1.6	0	0	0	5	0	0	0	0	0	0	0	0
19:00	8	-	16.6	3	0	0	3	5	0	0	0	0	0	0	0	0
20:00	11	19.9	18	2.1	0	0	1	10	0	0	0	0	0	0	0	0
21:00	11	19.1	14.9	4.7	0	2	5	3	1	0	0	0	0	0	0	0
22:00	3	-	13.5	1.7	0	0	3	0	0	0	0	0	0	0	0	0
23:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
12H,7-19	142	20.1	15.8	4.3	1	17	49	85	10	0	0	0	0	0	0	0
16H,6-22	176	20.1	15.9	4.3	1	21	59	84	11	0	0	0	0	0	0	0
18H,6-24	179	20	15.8	4.2	1	21	62	84	11	0	0	0	0	0	0	0
24H,0-24	180	20	15.8	4.2	1	21	62	85	11	0	0	0	0	0	0	0

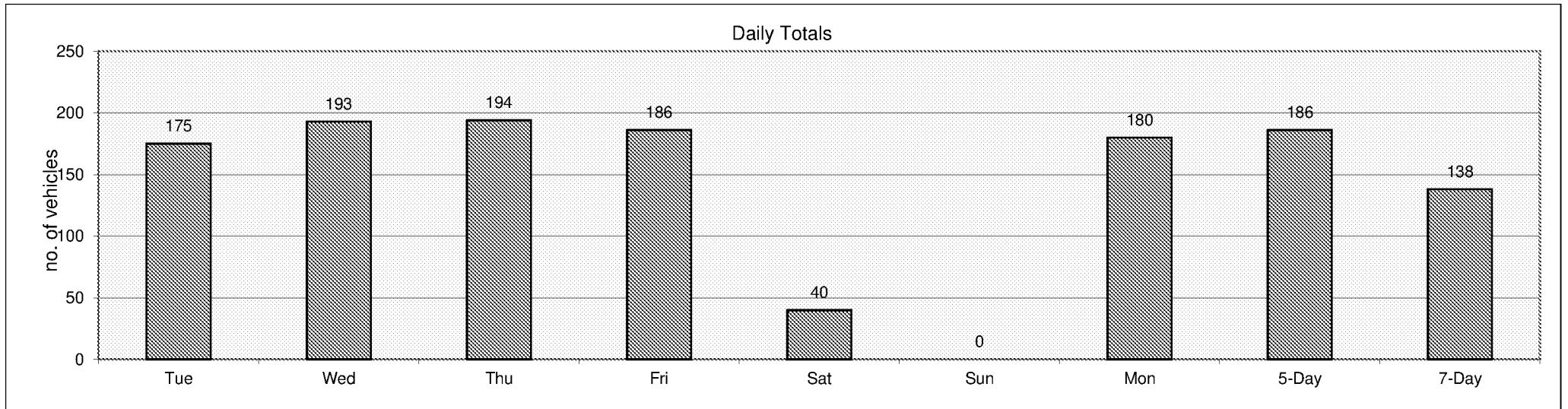
23106 ARUNDEL Site No: 23106001 Location Site 1, Dalloway Road, Arundel (LC 7)
 Tue 19-Jun-18 to Mon 25-Jun-18 Channel: Southbound

Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<6Mph	6-<11	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	=>56
Daily Totals																
Tue 19-Jun-18	175	19.9	15.7	4.2	1	19	70	74	11	0	0	0	0	0	0	0
Wed 20-Jun-18	193	21.1	17.1	4.7	1	20	44	98	28	2	0	0	0	0	0	0
Thu 21-Jun-18	194	21.9	18	4	0	7	42	109	35	1	0	0	0	0	0	0
Fri 22-Jun-18	186	20.9	17	4.4	2	11	55	91	26	1	0	0	0	0	0	0
Sat 23-Jun-18	40	19.2	14.6	4.3	0	8	16	15	1	0	0	0	0	0	0	0
Sun 24-Jun-18	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
Mon 25-Jun-18	180	20	15.8	4.2	1	21	62	85	11	0	0	0	0	0	0	0
Total Vehicles																
[--]	968	17.6	14.0	3.7	5	86	289	472	112	4	0	0	0	0	0	0



23106	ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)		
			Channel: Southbound						
TIME PERIOD	Tue 19/06/18	Wed 20/06/18	Thu 21/06/18	Fri 22/06/18	Sat 23/06/18	Sun 24/06/18	Mon 25/06/18	5-Day Av	7-Day Av
Week Begin: 19-Jun-18									
00:00	0	0	0	1	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	3	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	1	0	0
06:00	3	1	7	4	1	0	4	4	3
07:00	8	4	3	4	5	0	8	5	5
08:00	8	10	8	15	6	0	7	10	8
09:00	7	11	22	8	2	0	8	11	8
10:00	15	7	13	5	9	0	15	11	9
11:00	13	12	5	13	6	0	12	11	9
12:00	11	18	9	13	2	0	15	13	10
13:00	8	18	5	10	2	0	8	10	7
14:00	15	17	15	11	4	0	18	15	11
15:00	14	17	10	11	0	0	11	13	9
16:00	30	15	17	9	0	0	26	19	14
17:00	7	25	14	22	0	0	9	15	11
18:00	3	16	18	16	0	0	5	12	8
19:00	9	7	21	15	0	0	8	12	9
20:00	11	8	16	17	0	0	11	13	9
21:00	8	6	7	8	0	0	11	8	6
22:00	5	0	4	4	0	0	3	3	2
23:00	0	1	0	0	0	0	0	0	0
12H,7-19	139	170	139	137	36	0	142	145	109
16H,6-22	170	192	190	181	37	0	176	182	135
18H,6-24	175	193	194	185	37	0	179	185	138
24H,0-24	175	193	194	186	40	0	180	186	138
Am	10:00	11:00	09:00	08:00	10:00	05:00	10:00	-	-
Peak	15	12	22	15	9	0	15	16	13
Pm	16:00	17:00	19:00	17:00	14:00	23:00	16:00	-	-
Peak	30	25	21	22	4	0	26	25	18

23106	ARUNDEL		Site No: 23106001		Location		Site 1, Dalloway Road, Arundel (LC 7)		
			Channel: Southbound						
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIOD	19/06/18	20/06/18	21/06/18	22/06/18	23/06/18	24/06/18	25/06/18	Av	Av



Appendix C



Quantum of Development:

	Area (ha)
Net Developable Area	3.82
SuDs	0.67
Allotments	0.10
Green (inc. LEAP)	0.21
Primary Tree Lined Road	0.42
Green Infrastructure	4.96
Site Area	10.18

Developable Area: 3.82 ha

Number of Units: 90

(Affordable Units: 27)

Density: 24dph

- Existing Built Form
- Existing Vegetation
- Proposed Planting
- Primary Tree Lined Road
- SuDS - Sustainable Drainage System
- Allotments
- LEAP - Local Equipped Area for Play
- 1m Contours
- Site Boundary
- Emergency Site Access Only
- Public Right of Way
- Pedestrian Access
- Proposed Footpath (Hoggin Surface)
- Mown path
- Vehicle Access (new junction)

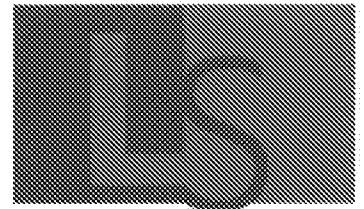
Illustrative Masterplan

Land at Ford Road, Arundel

Reproduced from the Ordnance Survey Map with the permission of the Controller of H.M. Stationery Office Crown copyright licence number 100024244 Savills (UK) Ltd. Published for the purposes of identification only and although believed to be correct accuracy is not guaranteed. C:\Users\coraluker\Box\UK Urban Design Projects\North Essex\SNUD400667\Land at Ford Road\Drawings\DDM\03 Illustrative Masterplan\2000@A3\IM03 Illustrative Masterplan_2000@A3\2011/20

drawing no.	IM003	drawing	Illustrative Masterplan
revision	1	scale	2000@A3
drawn by	CO	checked by	CO
date	20.11.2020	job no.	SNUD 400667

Appendix D



Laurence Shaw
ASSOCIATES

Traffic Engineering Consultants

Downsview
Poynings Road
Poynings
West Sussex BN45 7AH



ARDENT CONSULTING ENGINEERS

PROPOSED ACCESS ARRANGEMENTS
LAND AT TORTINGTON, ARUNDEL

ROAD SAFETY AUDIT STAGE 1
NOVEMBER 2020

CONTENTS

	Page No.
1. Introduction	2
2. Stage 1 Road Safety Audit	4
3. Audit Team Statement	5

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 at Tortington, Arundel.

1.2 This Audit was carried out at the request of Mr Kevin Markey 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 3rd November 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 6.0m access road with 2.0m footways and 10m radii accessed from Ford Road and a pedestrian, cycle and emergency vehicle access off Dalloway Road.

1.7 At the location of the Ford Road access the speed limit is NSL of 60mph and does not have a system of street lighting. At the location for the access on Dalloway Road the road has a speed limit of 20mph and has 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** No issues were found at this stage of design during the inspection of the documents or at the time of the site visit.

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 November 2020

Audit Team Member

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

Signed

Date 9th November 2020

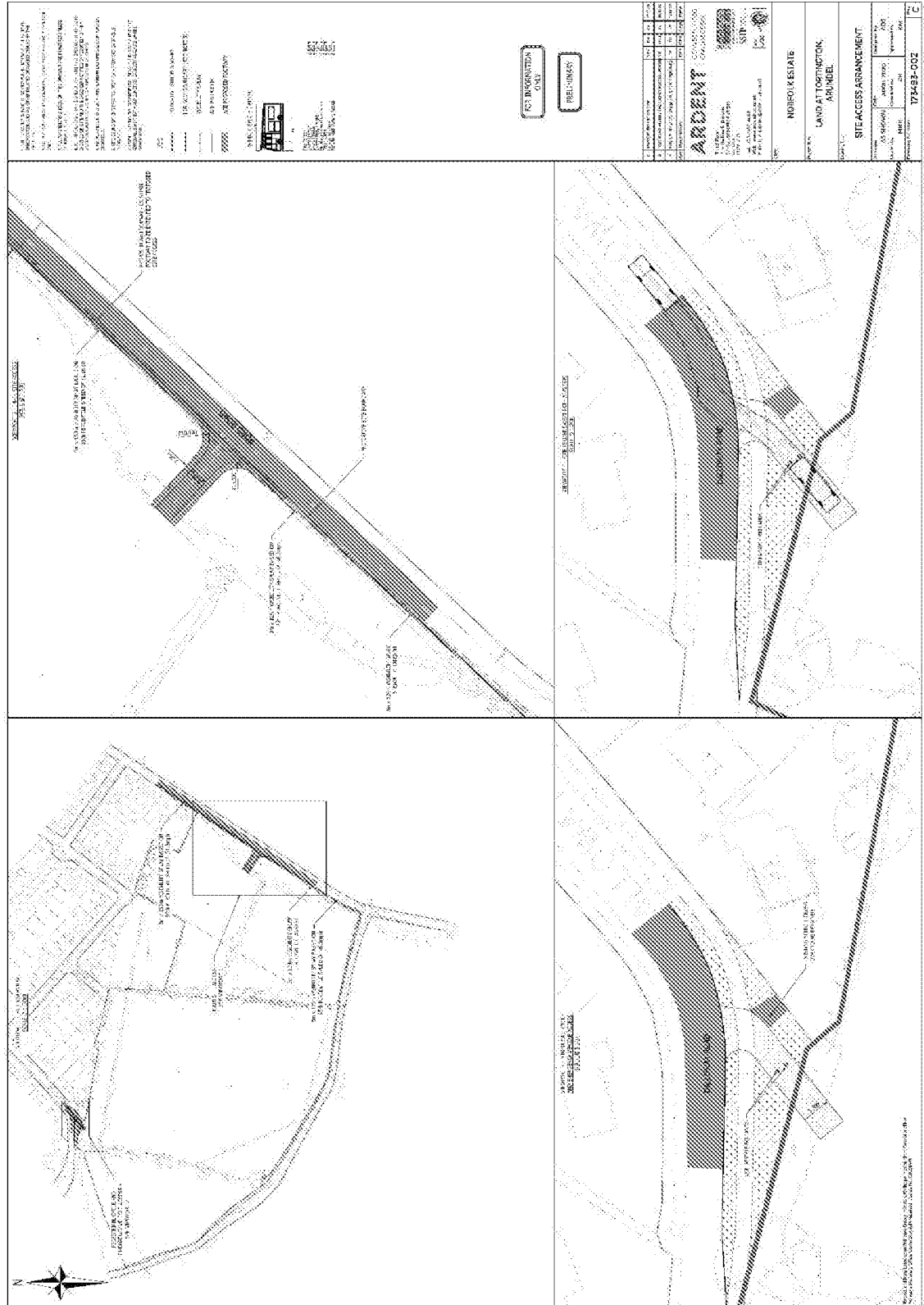
APPENDIX A

Schedule of documents examined

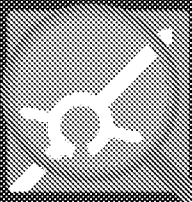
Drawing No.	Rev	Title	Description	Scale
173483-002	C	Land at Tortington, Arundel	Site Access Arrangement	As Shown

APPENDIX B

SCHEME DRAWING



Appendix E

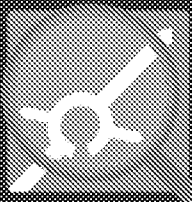


Crash Date: Friday, January 15, 2016 **Time of Crash:** 1:26:00 PM **Crash Reference:** 2016471600322

Highest Injury Severity:	Serious	Road Number:	U0	Number of Casualties:	1
Highway Authority:	West Sussex			Number of Vehicles:	2
Local Authority:	Arun District			OS Grid Reference:	500770 106057
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	60				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: www.crashmap.co.uk/home/Faq
To subscribe to unlimited reports using CrashMap Pro visit www.crashmap.co.uk/Home/Premium_Services



Vehicles involved

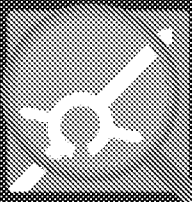
Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Car (excluding private hire)	-1	Unknown	26 - 35	Vehicle proceeding normally along the carriageway, on a left hand bend	Did not impact	Other	None	None
1	Car (excluding private hire)	9	Male	26 - 35	Vehicle proceeding normally along the carriageway, on a right hand bend	Front	Other	None	Wall or fence

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Serious	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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Crash Date: Saturday, July 30, 2016 **Time of Crash:** 12:40:00 PM **Crash Reference:** 2016471604602

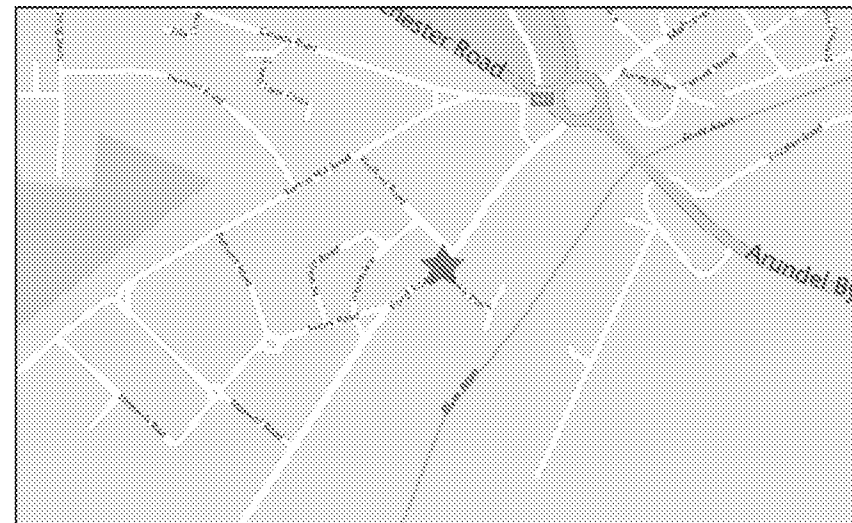
Highest Injury Severity: Slight
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 30
Light Conditions: Daylight: regardless of presence of streetlights
Carriageway Hazards: None
Junction Detail: T or staggered junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Single carriageway
Junction Control: Give way or uncontrolled

Road Number: U0

Number of Casualties: 1

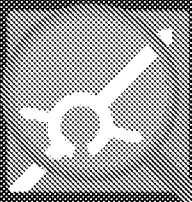
Number of Vehicles: 2

OS Grid Reference: 501173 106631



For more information about the data please visit: www.crashmap.co.uk/home/Faq

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Vehicles involved

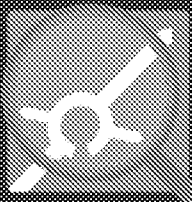
Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Pedal cycle	-1	Female	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	None
1	Car (excluding private hire)	5	Male	26 - 35	Vehicle is in the act of turning right	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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Crash Date: Wednesday, July 04, 2018 **Time of Crash:** 10:17:00 PM **Crash Reference:** 2018471803709

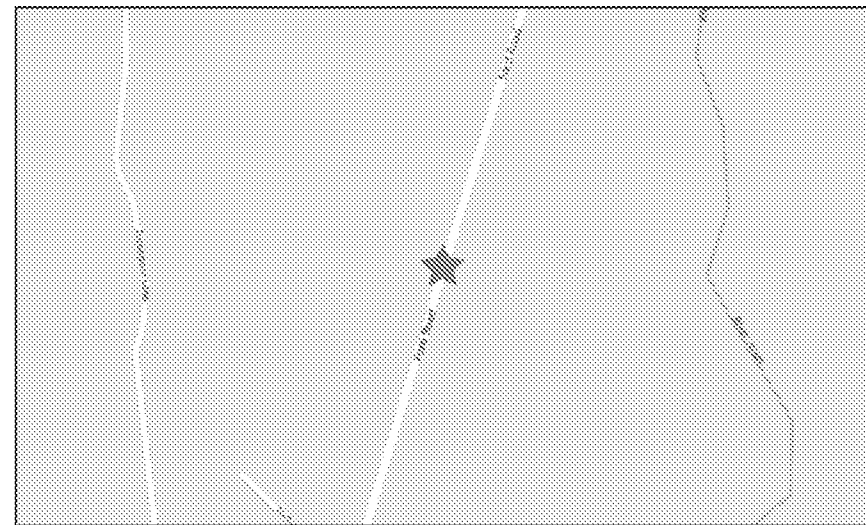
Highest Injury Severity: Slight
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 60
Light Conditions: Darkness: no street lighting
Carriageway Hazards: None
Junction Detail: Not at or within 20 metres of junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Single carriageway
Junction Control: Not Applicable

Road Number: U0

Number of Casualties: 2

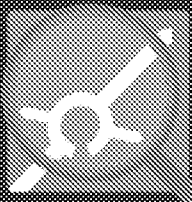
Number of Vehicles: 2

OS Grid Reference: 500620 105520



For more information about the data please visit: www.crashmap.co.uk/home/Faq

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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Car (excluding private hire)	16	Female	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Other	None	None
1	Car (excluding private hire)	17	Female	Over 75	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Other	None	None

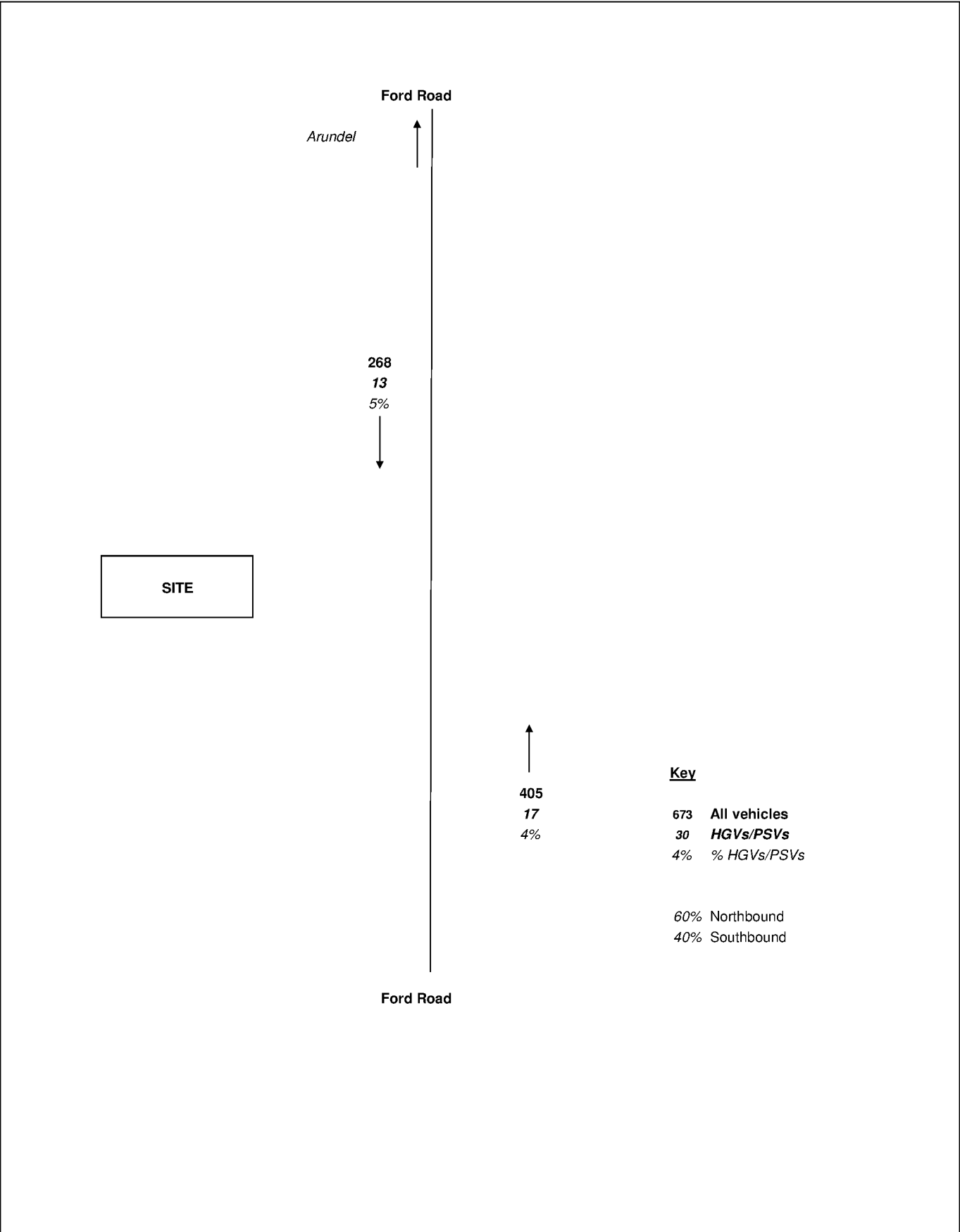
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Vehicle or pillion passenger	Female	16 - 20	Unknown or other	Unknown or other
2	2	Slight	Vehicle or pillion passenger	Female	16 - 20	Unknown or other	Unknown or other

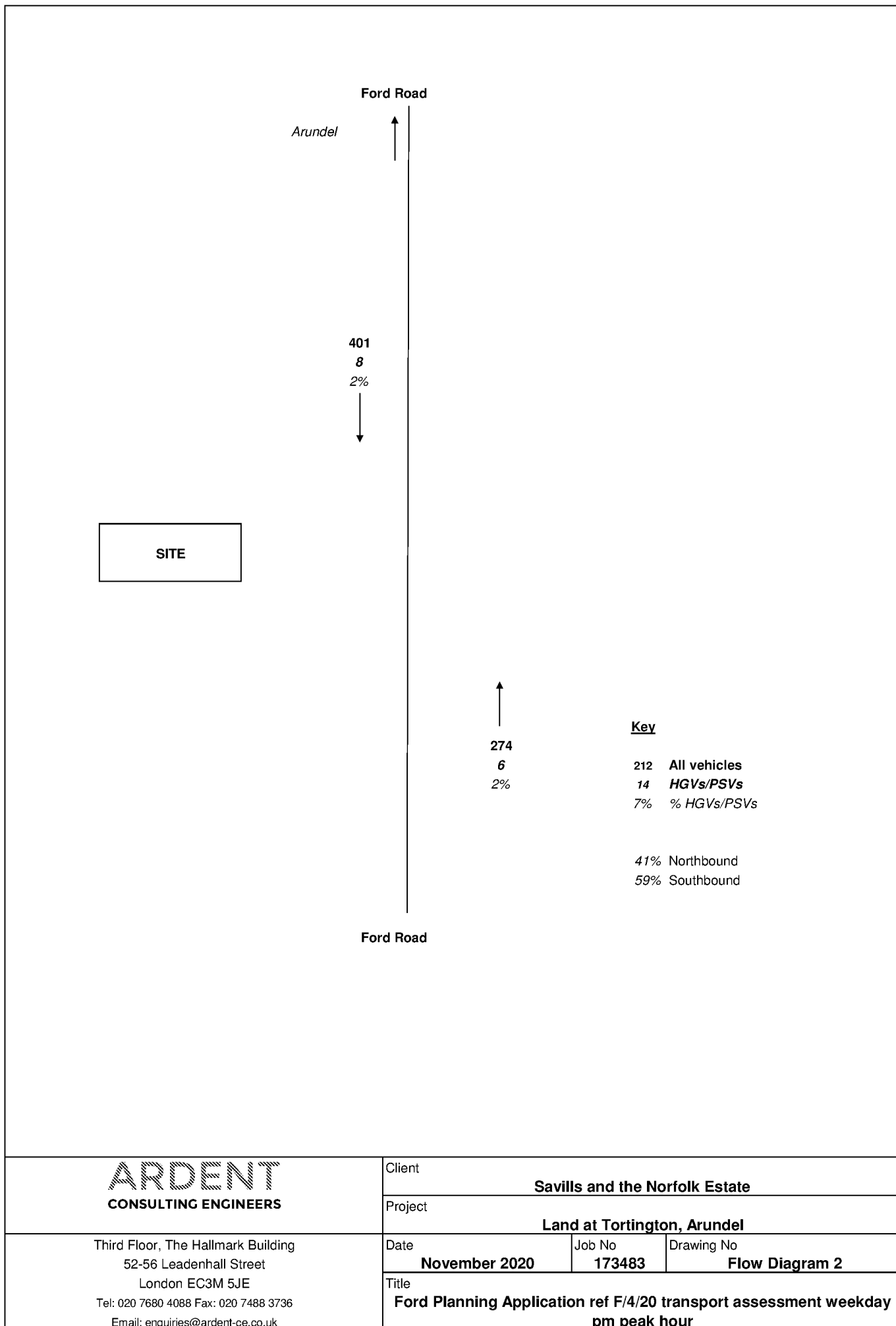
For more information about the data please visit: www.crashmap.co.uk/home/Faq

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Appendix F



ARDENT CONSULTING ENGINEERS	Client		
	Savills and the Norfolk Estate		
Third Floor, The Hallmark Building 52-56 Leadenhall Street London EC3M 5JE Tel: 020 7680 4088 Fax: 020 7488 3736 Email: enquiries@ardent-ce.co.uk	Project		
	Land at Tortington, Arundel		
	Date	Job No	Drawing No
	November 2020	173483	Flow Diagram 1
	Title		
	Ford Planning Application ref F/4/20 transport assessment weekday am peak hour		



ARDENT
CONSULTING ENGINEERS

Third Floor, The Hallmark Building
52-56 Leadenhall Street
London EC3M 5JE
Tel: 020 7680 4088 Fax: 020 7488 3736
Email: enquiries@ardent-ce.co.uk

Client

Savills and the Norfolk Estate

Project

Land at Tortington, Arundel

Date

November 2020

Job No

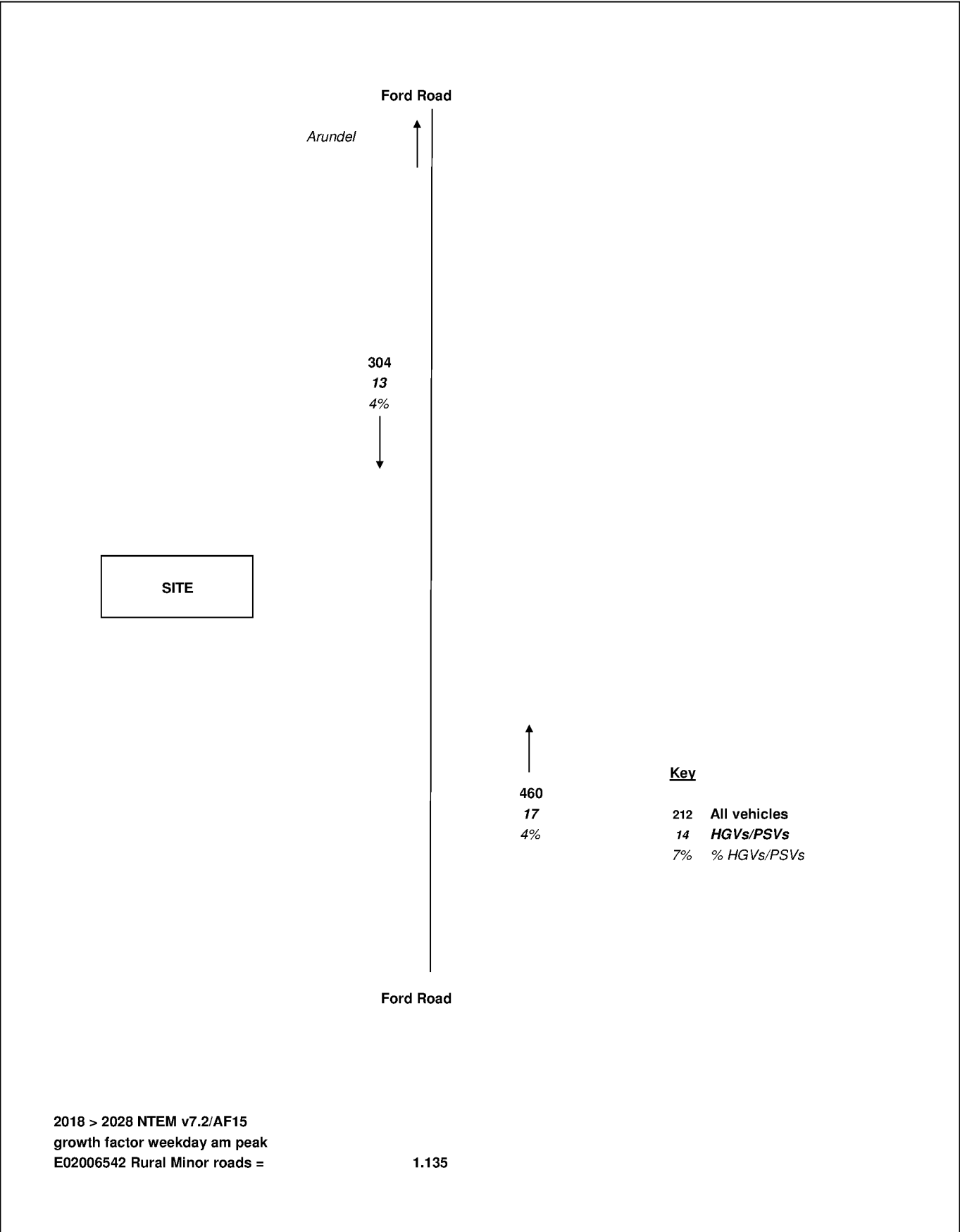
173483

Drawing No

Flow Diagram 2

Title

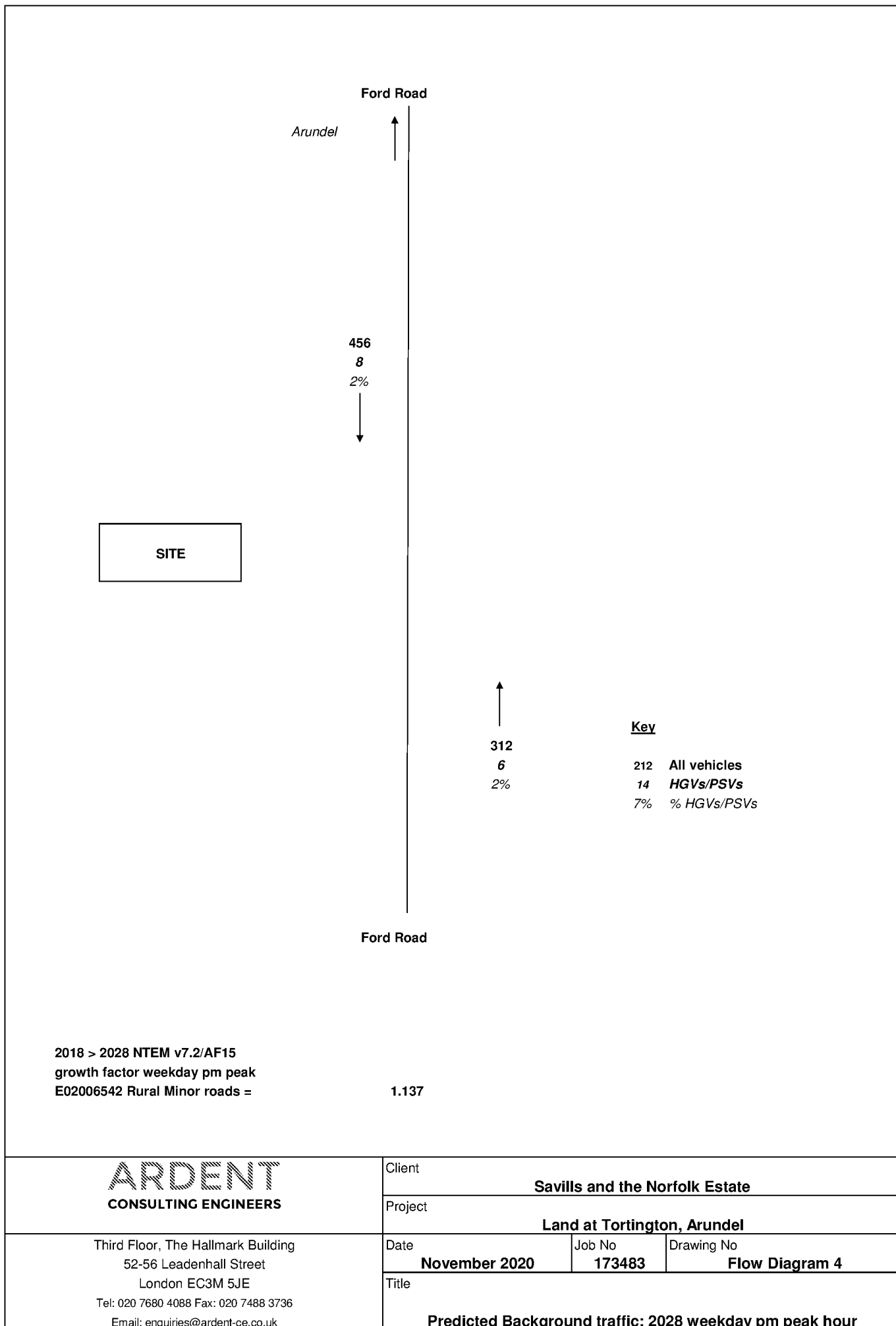
**Ford Planning Application ref F/4/20 transport assessment weekday
pm peak hour**

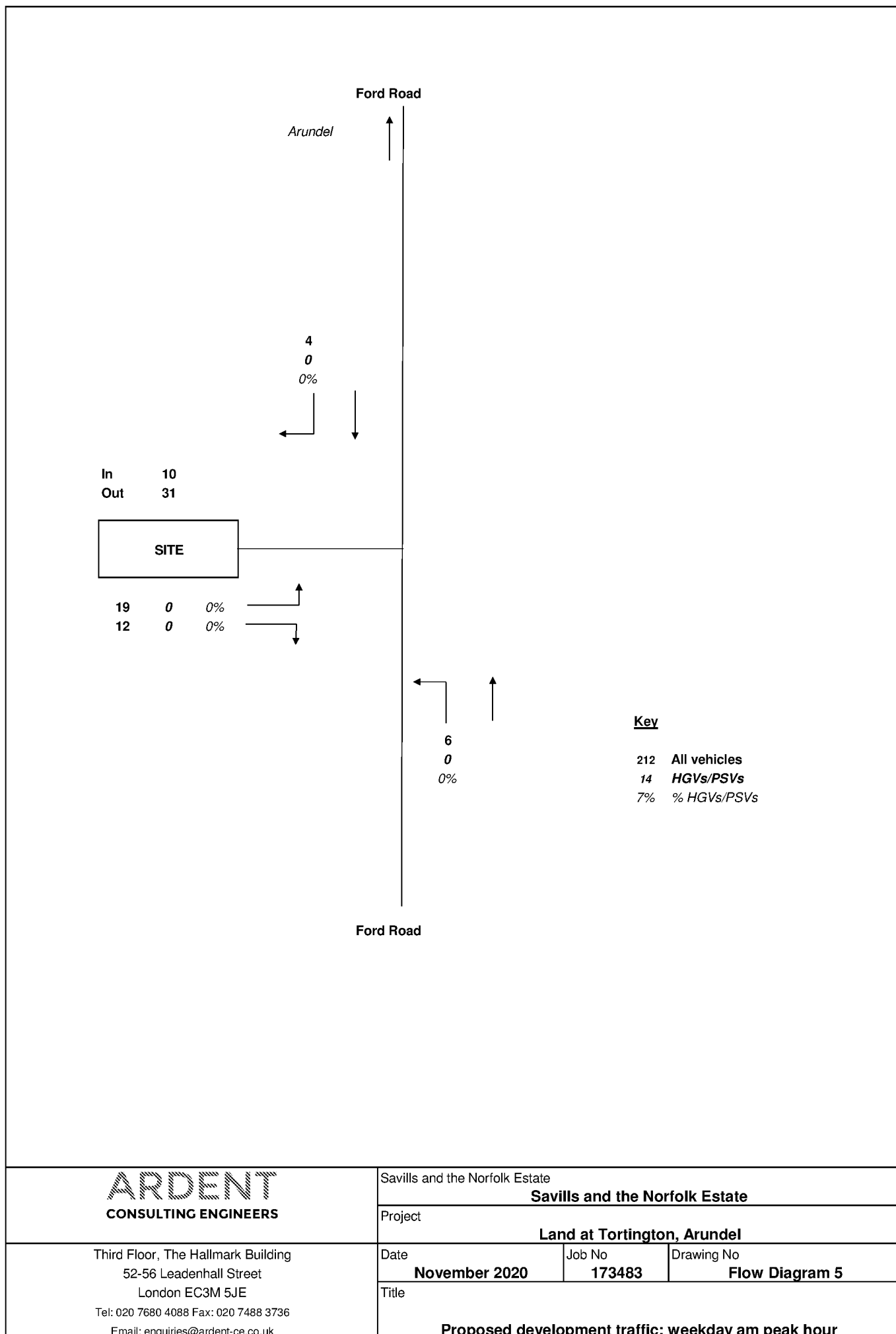


2018 > 2028 NTEM v7.2/AF15
growth factor weekday am peak
E02006542 Rural Minor roads =

1.135

ARDENT CONSULTING ENGINEERS	Client		
	Savills and the Norfolk Estate		
Third Floor, The Hallmark Building 52-56 Leadenhall Street London EC3M 5JE Tel: 020 7680 4088 Fax: 020 7488 3736 Email: enquiries@ardent-ce.co.uk	Project		
	Land at Tortington, Arundel		
	Date	Job No	Drawing No
	November 2020	173483	Flow Diagram 3
February 2018			
Predicted Background traffic: 2028 weekday am peak hour			





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Savills and the Norfolk Estate

Savills and the Norfolk Estate

Project

Land at Tortington, Arundel

Date

November 2020

Job No

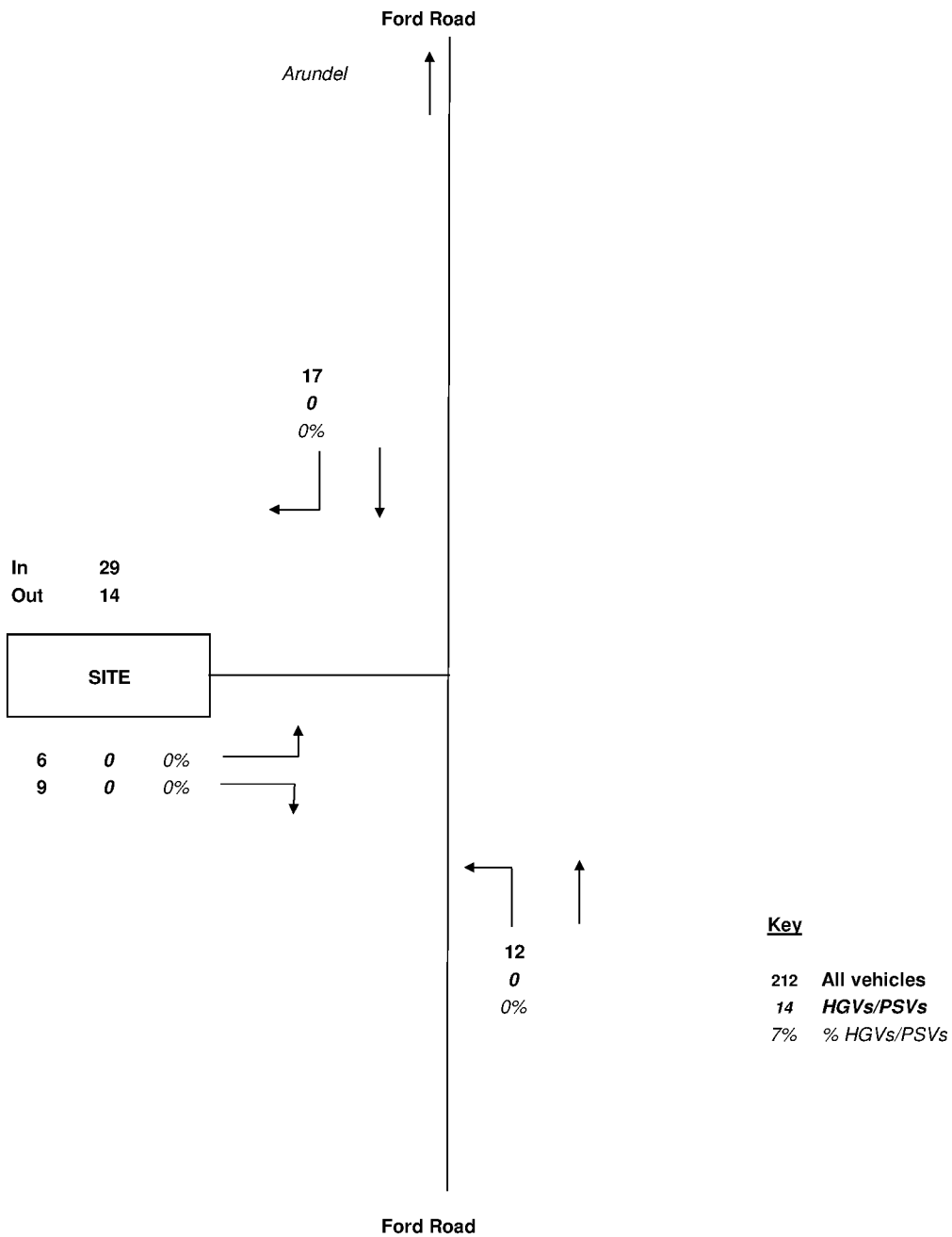
173483

Drawing No

Flow Diagram 5

Title

Proposed development traffic: weekday am peak hour



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Savills and the Norfolk Estate

Savills and the Norfolk Estate

Project

Land at Tortington, Arundel

Date

November 2020

Job No

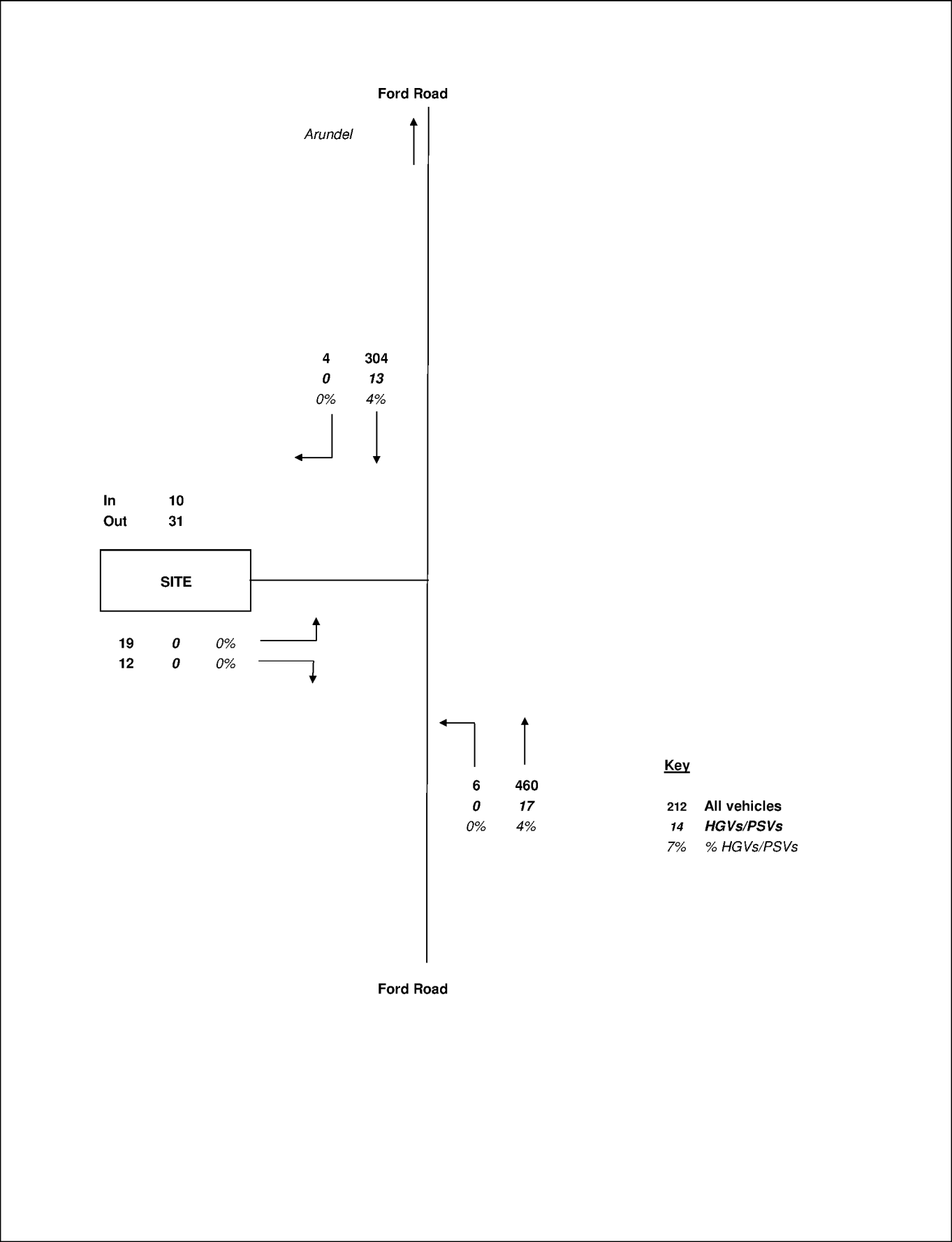
173483

Drawing No

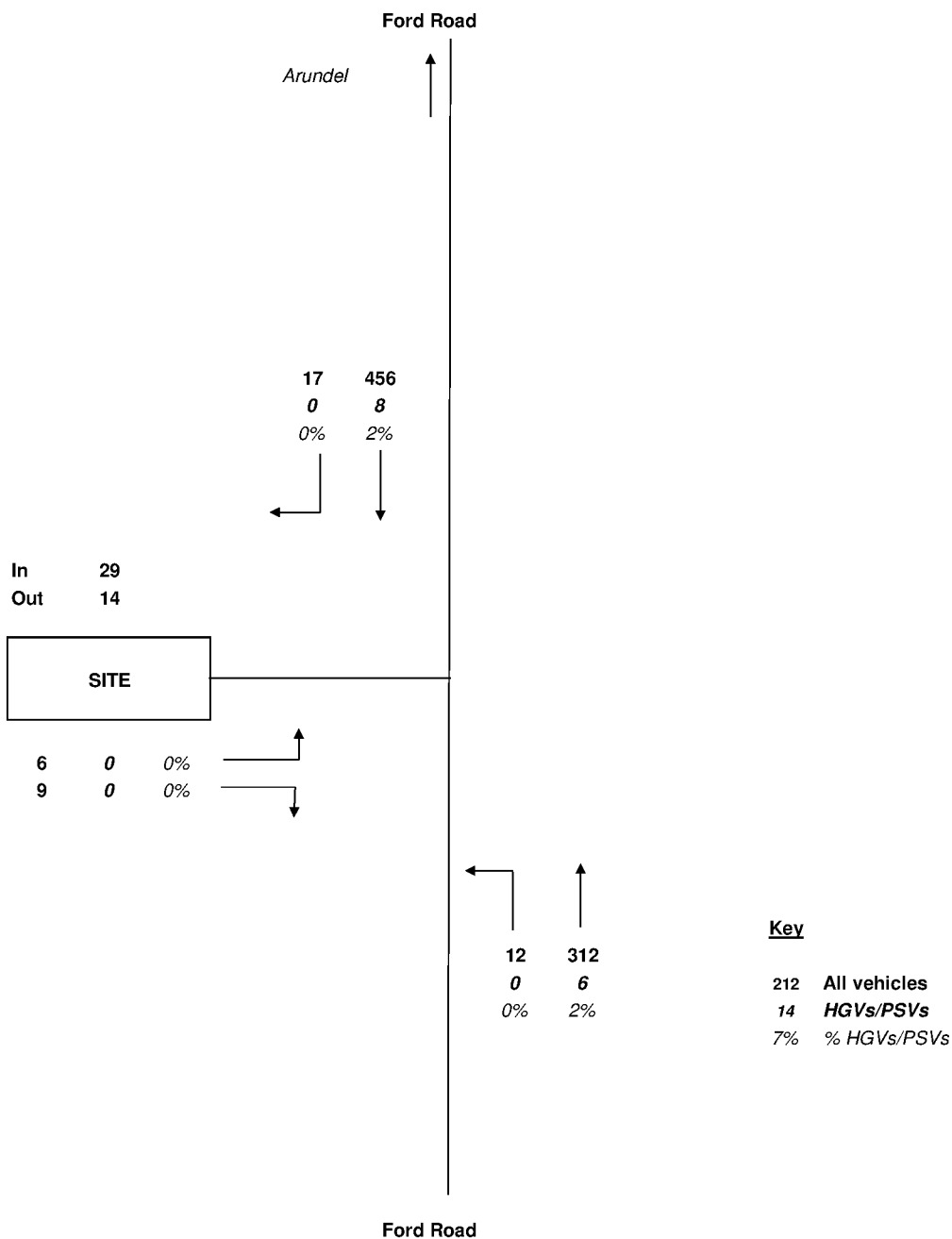
Flow Diagram 6

Title

Proposed development traffic: weekday pm peak hour



ARDENT CONSULTING ENGINEERS	Savills and the Norfolk Estate		
	Project Savills and the Norfolk Estate		
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	Date November 2020	Job No 173483	Drawing No Flow Diagram 7
	Title 2028 Development Case traffic: weekday am peak hour		



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Savills and the Norfolk Estate

Savills and the Norfolk Estate

Project

Land at Tortington, Arundel

Date

November 2020

Job No

173483

Drawing No

Flow Diagram 8

Title

2028 Development Case traffic: weekday pm peak hour

Appendix G

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL:
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 173481 Ford Rd Jct, Arundel.j9

Path: C:\Users\transportation\Documents\JUNCTIONS9 files

Report generation date: 03/11/2020 11:07:50

»2028 Development Case, AM

»2028 Development Case, PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
2028 Development Case												
Stream B-AC	D1	0.1	8.58	0.08	A	148 %	D2	0.0	8.70	0.04	A	163 %
Stream C-AB		0.0	5.02	0.01	A	[Stream B-AC]		0.1	4.49	0.05	A	[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Ford Rd Junction
Location	Arundel
Site number	
Date	05/07/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	173481
Enumerator	ARDENTCE\transportation
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2028 Development Case	AM	ONE HOUR	07:45	09:15	15	✓
D2	2028 Development Case	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2028 Development Case, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.37	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	148	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	Ford Road S		Major
B	Site Access		Minor
C	Ford Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.77			152.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.65	24	19

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	527	0.093	0.235	0.148	0.335
B-C	677	0.100	0.254	-	-
C-B	662	0.248	0.248	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2028 Development Case	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	448	100.000
B		ONE HOUR	✓	31	100.000
C		ONE HOUR	✓	296	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	6	442
	B	12	0	19
	C	292	4	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	4
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.08	8.58	0.1	A	28	43
C-AB	0.01	5.02	0.0	A	6	9
C-A					266	399
AB					6	8
AC					406	609

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	504	0.046	23	0.0	0.0	7.477	A
C-AB	4	1	722	0.006	4	0.0	0.0	5.016	A
C-A	219	55			219				
AB	5	1			5				
AC	333	83			333				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	28	7	483	0.058	28	0.0	0.1	7.903	A
C-AB	6	1	736	0.008	6	0.0	0.0	4.922	A
C-A	261	65			261				
A-B	5	1			5				
A-C	398	99			398				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	34	9	454	0.075	34	0.1	0.1	8.574	A
C-AB	8	2	757	0.010	8	0.0	0.0	4.797	A
C-A	319	80			319				
A-B	7	2			7				
A-C	487	122			487				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	34	9	454	0.075	34	0.1	0.1	8.575	A
C-AB	8	2	757	0.010	8	0.0	0.0	4.803	A
C-A	319	80			319				
A-B	7	2			7				
A-C	487	122			487				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	28	7	483	0.058	28	0.1	0.1	7.907	A
C-AB	6	1	736	0.008	6	0.0	0.0	4.935	A
C-A	261	65			261				
A-B	5	1			5				
A-C	398	99			398				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	504	0.046	23	0.1	0.0	7.486	A
C-AB	4	1	722	0.006	4	0.0	0.0	5.022	A
C-A	219	55			219				
A-B	5	1			5				
A-C	333	83			333				

2028 Development Case, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	163	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2028 Development Case	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	318	100.000
B		ONE HOUR	✓	15	100.000
C		ONE HOUR	✓	464	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A	B	C
	A	0	12	306
	B	9	0	6
	C	447	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	0	2
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.04	8.70	0.0	A	14	21
C-AB	0.05	4.49	0.1	A	31	46
C-A					395	593
AB					11	17
AC					281	421

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	478	0.024	11	0.0	0.0	7.702	A
C-AB	22	5	823	0.026	22	0.0	0.0	4.490	A
C-A	328	82			328				
AB	9	2			9				
AC	230	58			230				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	458	0.029	13	0.0	0.0	8.090	A
C-AB	29	7	857	0.034	29	0.0	0.0	4.342	A
C-A	388	97			388				
AB	11	3			11				
AC	275	69			275				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	17	4	430	0.038	16	0.0	0.0	8.698	A
C-AB	41	10	906	0.045	41	0.0	0.1	4.160	A
C-A	470	117			470				
AB	13	3			13				
AC	337	84			337				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	17	4	430	0.038	17	0.0	0.0	8.699	A
C-AB	41	10	906	0.045	41	0.1	0.1	4.165	A
C-A	470	117			470				
AB	13	3			13				
AC	337	84			337				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	458	0.029	14	0.0	0.0	8.092	A
C-AB	29	7	857	0.034	29	0.1	0.0	4.349	A
C-A	388	97			388				
AB	11	3			11				
AC	275	69			275				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	478	0.024	11	0.0	0.0	7.708	A
C-AB	22	5	823	0.026	22	0.0	0.0	4.494	A
C-A	328	82			328				
AB	9	2			9				
AC	230	58			230				