

ADL Traffic and Highways Engineering Ltd

ADL House, The Oaklands Business Park, Armstrong Way, Yate, Bristol BS37 5NA

Tel: 01454 332100

Fax: 01454 327983

Email: head@adltraffic.co.uk

**TRANSPORT ASSESSMENT
PROPOSED MIXED USE DEVELOPMENT
SALTBOX SITE, SHRIPNEY ROAD
BOGNOR REGIS**

Landlink Estates
1st Floor
34 Dover Street
London
W1S 4NG

ADL/LRJ/3503/09A

August 2017

Directors: A. J. Mendelsohn MSc, BSc (Hons), MIHT, MCIT L. E. Randall-Jones MSc, MIHT, MCILT, Dip. TE

A. M. Chapman CEng, BSc, MICE, MIHT, MCIWEM

Associate Directors: C. M. Chapman BSc (Hons) R. J. Green BA (Hons), MSc C. Turner BEng (Hons), MCIHT

Registered at the address above in England number 3121125 VAT Registration No. 674 4017 36

London Office: 1 Coldbath Square, London EC1R 5HL

REPORT CONTROL

Document: Transport Assessment
Project: Saltbox Site, Bognor Regis
Client: Landlink Estates
ADL Reference: 3503

Document Checking

Primary Author	Amol Pisal	Initialled: AP
-----------------------	------------	----------------

Contributor	Initialled:
--------------------	-------------

Review by	Tony Chapman	Initialled: AMC
------------------	--------------	-----------------

Issue	Date	Status	Checked for Issue
1	04/08/2107	Draft 1	AP
2	09/08/2017	Final	AP

This report and its contents are copyright ADL Traffic & Highways Engineering Ltd and their clients.
This report shall not be reproduced without written permission.

CONTENTS

Page No

1.0	INTRODUCTION	
1.1	Purpose of Report	1
1.2	Pre-Application Discussions	1
1.2	Scope of Study	2
2.0	EXISTING SITUATION	
2.1	Site Location and Surrounding Area	3
2.2	Local Road Network	3
2.3	Accident Data Analysis	4
3.0	ACCESSIBILITY	
3.1	Pedestrians and Cyclists	6
3.2	Public Transport	7
4.0	BASELINE DATA	
4.1	2031 Reference Traffic Flows	8
5.0	DEVELOPMENT PROPOSALS	
5.1	The Proposal	9
5.2	Access Arrangements	10
5.3	Parking	12
5.4	Servicing Arrangements	13
6.0	VEHICULAR TRAFFIC GENERATION	
6.1	Methodology	15
6.2	Vehicle Trips	16
6.3	Trip Distribution	18
7.0	TRAFFIC IMPACT	
7.1	Increase in Vehicular Traffic	20
7.2	Capacity Assessment: Off Site Junctions	21
7.3	Creation of Local Jobs	23
8.0	SUMMARY AND CONCLUSIONS	24

APPENDICES

1.0 PRE-APPLICATION RESPONSE WEST SUSSEX COUNTY COUNCIL

- 1.1 Email Correspondence of 18th April 2017
- 1.2 Pre-Application Response
- 1.3 Email Correspondence of 10th May 2017
- 1.4 Email Correspondence of 24th May 2017
- 1.5 Email Correspondence of 26th May 2017

2.0 SITE LOCATION AND SURROUNDING AREA

- 2.1 Site Location
- 2.2 Site and Surrounding Area

3.0 ACCIDENT DATA

- 3.1 Accident Plot
- 3.2 Accident Report

4.0 ACCESSIBILITY

- 4.1 Cycle Route Map
- 4.2 Bus Stop Locations
- 4.3 Bus Routes

5.0 A2017 TRAFFIC FLOWS: A29/ROWAN WAY ROUNDABOUT

6.0 2031 REFERENCE FLOWS (ADJUSTED): A29/FELPHAM RELIEF ROAD ROUNDABOUT AND A29/ROWAN WAY ROUNDABOUT

- 6.1 AM Peak Hour
- 6.2 PM Peak Hour

7.0 2031 REFERENCE FLOWS (ADJUSTED) A259/B3132 JUNCTION

8.0 REFERENCE FLOWS (ADJUSTED): A259/A27 CHICHESTER BYPASS ROUNDABOUT

9.0 PROPOSED DEVELOPMENT

- 9.1 Proposed Site Layout
- 9.2 Site Access Arrangements
- 9.3 AutoTRACK Assessment: 16.5m Articulated Vehicle
- 9.4 AutoTRACK Assessment: 11.4m Refuse Truck

10.0 TRICS

- 10.1 Hotel
- 10.2 Public House
- 10.3 Drive-thru Restaurant
- 10.4 Gym

11.0 AGREED PROPOSED TRAFFIC DISTRIBUTION

12.0 GENERATED FLOWS ON SITE ACCESS ROUNDABOUT AND A29/ROWAN WAY ROUNDABOUT

- 12.1 AM Peak Hour
- 12.2 PM Peak Hour

13.0 GENERATED FLOWS ON A259/B2132 JUNCTION

14.0 GENERATED FLOWS ON A25/A259 ROUNDABOUT

15.0 2031 REFERENCE + DEVELOPMENT FLOWS: SITE ACCESS ROUNDABOUT AND A29/A259 ROWAN WAY ROUNDABOUT

- 15.1 AM Peak Hour
- 15.2 PM Peak Hour

16.0 2031 REFERENCE + DEVELOPMENT FLOWS: A259/B2132 JUNCTION

17.0 ARCADY ASSESSMENT: SITE ACCESS ROUNDABOUT

- 17.1 Geometry Plan
- 17.2 ARCADY Outputs

18.0 ARCADY ASSESSMENT: A29/ROWAN WAY ROUNDABOUT

- 18.1 Geometry Plan
- 18.2 ARCADY Outputs

1.0 INTRODUCTION

1.1 Purpose of Report

1.1.1 ADL Traffic and Highways Engineering Ltd have been appointed by Landlink Estates to prepare a Transport Assessment to support a hybrid planning application which comprises:

- Full planning application for Class B8 warehouse, fuel island, car parking, access roads, plus engineering works, landscaping and associated works; and:
- Outline planning application for the development of employment units, warehouse, hotel, two drive thru units, public house and a gym, plus engineering works, landscaping and associated works.

1.1.2 The site is located to the west of the A29 Shripney Road/A259 Felpham Relief Road Roundabout in Bognor Regis. The site is referred to as Saltbox and is one of the sites covered by the Draft Enterprise Bognor Regis Local Development Order (EBRLDO).

1.1.3 This TA describes the development proposals in respect of the access arrangements car and cycle parking provision and trip generation.

1.1.4 The TA has been prepared in line with the revised Planning Practice Guidance on “Travel plans, transport assessment and statements in decision-taking” (March 2014).

1.2 Pre-Application Discussions

1.2.1 ADL undertook an extensive pre-application consultation with West Sussex County Council (WSCC). A Scoping Study Transport Assessment was submitted to WSCC as part of the pre-application and a pre-application meeting was arranged on 18th April 2017 to discuss the highways requirements in relation to the application with Mr. I Gledhill of WSCC.

1.2.2 A follow-up email summarising the discussions at the meeting was sent to Mr Gledhill on 18th April 2017. A copy of this email is provided in Appendix 1.1.

- 1.2.3 A formal pre-application response was obtained from Mr. Gledhill on 26th April 2017. A copy of this response is provided in Appendix 1.2.
- 1.2.4 Mr. Gledhill provided 2031 reference traffic flows from West Sussex County Model for various junctions that are to be assessed as part of this application via email on 10th May 2017. A copy of this email is provided in Appendix 1.3.
- 1.2.5 The traffic distribution was agreed by Mr Gledhill on 24th May 2017. A copy of the email is provided in Appendix 1.4.
- 1.2.6 The trip rates for the hotel and drive-thru restaurant based on TRICS were agreed with Mr. Gledhill via email on 26th May 2017. A copy of this email is provided in Appendix 1.5.

1.3 Scope of Study

- 1.3.1 Chapter 2 of this report describes the site and surrounding area, along with a full description of the extent of the accident area.
- 1.3.2 Chapter 3 of the report provides details on the accessibility of the site to non-car borne modes of transport.
- 1.3.3 Chapter 4 describes the extent of the traffic surveys on the local road network.
- 1.3.4 Chapter 5 describes the proposed development and access arrangements.
- 1.3.5 Chapter 6 calculates the potential traffic generated by the proposed development and the traffic distribution methodology.
- 1.3.6 Chapter 7 sets out the methodology for assessing the traffic impact,
- 1.3.7 Chapter 8 summarises and concludes the findings of the study.

2.0 EXISTING SITUATION

2.1 Site Location and Surrounding Area

- 2.1.1 Saltbox encompasses an area of approximately 29.66 acres and it is currently farmland.
- 2.1.2 The site is located on the northern edge of Bognor Regis approximately 3km north of the town centre, 2.5km east of North Bersted and less than a kilometre south of the village of Shripney. The site location plan is provided in Appendix 2.1.
- 2.1.3 The site is boarded by farmland to the west and north, the A29 Shripney Road to the east and a caravan site to the south. The site and surrounding area plan is provided as Appendix 2.3.

2.2 Local Road Network

- 2.2.1 The access to the site will be via a fifth arm from A29 Shripney Road/A259 Roundabout. The A29 Shripney Road is a dual carriageway subject to a speed limit of 40mph in the vicinity of the site and benefits from having footways on both sides and street lighting.
- 2.2.2 The A29 Shripney Road connects Bognor Regis to Fontwell via Shripney and Westergate. It joins the A259 at a four-armed roundabout at the southeastern corner of the site. The fourth arm is a no-through road serving the Rolls-Royce Logistics warehouse.
- 2.2.3 The A259 continues eastwards from this roundabout to Littlehampton, forming part of a northern bypass to Bognor, Felpham and Middleton-on-Sea.
- 2.2.4 To the south of this roundabout the A29 joins Rowan Way and the access road to the Southern Cross Industrial Estate at another four armed roundabout junction.

2.3 Accident Data Analysis

2.3.1 The latest 3-year personal injury accident data was obtained from West Sussex County Council. The accident study area covers the stretch of the A29 Shripney Road from Shripney to the A29/Rowan Way roundabout, including both roundabout junctions. It also covers the A29 Shripney Road junction with Shripney Lane. The accident plot is shown in Appendix 3.1.

2.3.2 The accident report is provided in Appendix 3.2. A total of 15 accidents were recorded within the study area. They are as follows:

- In the vicinity of A29 Shripney Road/A259 Rowan Way Roundabout
 - 14 accidents (13 slight and 1 serious)
- A29 Shripney Road, approx. 120m north of the junction with A259 Felpham Relief Road:
 - 1 accident (slight)

2.3.3 There were no accidents recorded on the A29 Shripney Road/A259 Felpham Relief Road. The accident summary is as follows:

A29 Shripney Road/A259 Rowan Way Roundabout (14 accidents)

- Eight accidents were rear end collisions at the approaches to the roundabout as a result of the drivers failing to judge the speed of the vehicles in front. These accidents were classed as slight.
- Three accidents (two involving pedal cyclists and one involving motorcyclist) occurred when the vehicles entering the roundabout failed to give-way and collided with the cyclist/motorcyclist already travelling on the roundabout. These accidents were classed as slight.
- One accident was a result of the driver of a bus driving dangerously which caused a car to brake hard. This accident was classed as slight whereby the passengers in the car had to seek medical advice.
- One accident was a result of a vehicle changing lanes without looking properly causing a collision with a motorcyclist. This accident was classed as slight.

- One accident was a result of a woman who crossed the carriageway in order to get away from a car which was following her. As she was crossing the carriageway, the same car collided with her which caused serious injury.

A29 Shripney Road (120m north of its junctions with A259 Felpham Relief Road (one accident))

- This accident was a result of a vehicle which lost control while travelling south and collided with another vehicle. This accident was classed as slight.

2.3.4 This accident analysis demonstrates that the accidents that were recorded were a result of driver error and hence, there are no highway safety issues that need addressing as part of this planning application.

3.0 ACCESSIBILITY

3.1 Pedestrians and Cyclists

- 3.1.1 “Guidelines for Providing for Journeys on Foot” by Chartered Institute for Highways and Transportation (2000) suggest that 2km walking distance for commuting is considered to be acceptable. There is a residential development to the south of the site, business park, industrial estates and various retail outlets within 2km walking distance. Similarly, there is a village of Shripney within 1km walking distance north of the site on the A29.
- 3.1.2 There is a 1m wide cycle/footway on the west side of the A29 Shripney Road which provides accesses from Shripney to the A29/A259 Felpham Relief Road roundabout. South of this roundabout, the footway on the west side widens to provide a 3.0m shared cycleway/footway between this roundabout and the Rowan Way roundabout.
- 3.1.3 There is also a 3.0m shared cycle/footway which runs along the southside of the A259 Felpham, Relief Road which crosses the A29 south of the roundabout. There is a dropped kerb, uncontrolled staggered crossing point on the A29 south of the roundabout junction with the A259 for pedestrians and cyclists.
- 3.1.4 The shared cycleway/footway along A259 Felpham Relief Road provide pedestrian and cycle access from the A29/A259 roundabout to the Felpham residential areas of Flansham along A259 to the east of the site.
- 3.1.5 West Sussex County Council are creating a shared cycle path along the A259, which will start at the Hoe Lane Roundabout in Flansham and end at the Clymping roundabout near Clymping Cricket Club. This will link up with existing shared cycle paths on Felpham Relief Road in the west and Littlehampton to the east. The local cycle route map is provided in Appendix 4.1.

3.2 Public Transport

Buses

- 3.2.1 The document “Planning for Public Transport in Development” (Chartered Institute of Highways and Transportation – 1999) recommends that new developments should be located so that public transport trips involve a walking distance of less than 400m from the nearest bus stop.
- 3.2.2 There are northbound and southbound bus stops on the A29 south of Rowan Way at a walking distance of approximately 450m to 500m south of the site access point. They serve the routes № 66A and 66C. The bus stops are provided with bus shelter, seating arrangements and timetable information board.
- 3.2.3 A plan showing the bus stop locations is provided in Appendix 4.2 and the local bus route map is provided in Appendix 4.3. Table 3A summarises the bus services at these bus stops.

Table 3A Bus Service Summary

Service №	Route	Frequency	
		Mon-Fri	Sat
66A/66C	Bognor-Shripney-Westergate-Bognor Regis	0.5 per hr	0.5 per hr

Source: Traveline

- 3.2.4 Table 3A shows that there is one bus service every two hours during the day that serve the bus stops south of the site and one per hour in the AM and PM peak. These bus routes provide access to locations between Bognor and Westergate, Walberton and Yapton.

4.0 BASELINE DATA

4.1 2031 Reference Traffic Flows

4.1.1 ADL obtained the 2031 Reference AM and PM peak hour flows from WSCC. These flows contain all the committed developments up to 2031. The flows were obtained in passenger car units (pcus) for the following four junctions:

- Junction 1 - A29/A259 Felpham Relief Road Roundabout;
- Junction 2 - A29/A259 Rowan Way Roundabout;
- Junction 3 - A259/B2132 staggered junction; and,
- Junction 4 - A259/A27 Chichester Bypass Roundabout.

4.1.2 It is noted that 2031 reference scenario did not contain flows along Steyning Way arm of the A29/A259 Rowan Way roundabout. Mr Gledhill of WSCC advised that a turning count would need to be undertaken at this roundabout to determine the flows entering and exiting the Steyning Way arm of the roundabout.

4.1.3 For this purpose, ADL commissioned Axiom to undertake turning movement count at A291/A259 Rowan Way roundabout on 16th May 2017 during AM (07:00-10:00 hours) and PM (15:00-18:00 hours) periods. The traffic data is provided in Appendix 5.0 and peak hour results for Steyning Way are summarised in Table 4A.

Table 4A Steyning Way: 2017 Survey (Peak Hours)

AM Peak Hour				PM Peak Hour			
From	No of Vehicles	To	No of Vehicles	From	No of Vehicles	To	No of Vehicles
A29 (N)	204	A29 (N)	58	A29 (N)	108	A29 (N)	135
Rowan Way	93	Rowan Way	40	Rowan Way	62	Rowan Way	140
A29 (S)	139	A29 (S)	63	A29 (S)	71	A29 (S)	152
Total	436	Total	161	Total	241	Total	427

4.1.4 The peak hour flows in Table 4A have been converted into PCUs and added to the WSCC's 2031 Reference flows to obtain 2031 adjusted Reference flows. The flows adjusted across A29/A259 Felpham Relief Road Roundabout, A29/A259 Rowan Way Roundabout are shown in Appendices 6.1 and 6.2 for the AM and PM peak hours respectively. The A259/B2132 staggered junction and A259/A27 Chichester Bypass roundabout are shown in Appendices 7.0 and 8.0 respectively.

5.0 DEVELOPMENT PROPOSALS

5.1 The Proposal

5.1.1 The planning application is submitted as a hybrid application, part in full, and part outline with scale and access for approval only. The application comprises:

- Full planning application for Class B8 warehouse, fuel island, car parking, access roads, plus engineering works, landscaping and associated works; and;
- Outline planning application for the development of employment units, warehouse, hotel, 2 No. drive thru units, public house, gym, plus engineering works, landscaping and associated works.

5.1.2 The application is submitted as a hybrid application, to allow full details to be submitted for the parcel of land to the rear of the site, where Warburtons has a requirement for a Class B8 warehouse for the storage and distribution of bread and products. This unit (unit 2) has been designed to meet their required specification and as such, detailed design information is submitted in full for this aspect of the proposal, as well as the associated infrastructure and landscaped areas of the wider site.

5.1.3 The full application also provides for all the necessary highway and landscaping infrastructure together with drainage works and attenuation ponds. This will provide a serviced site to allow for the delivery of the remainder as tenant interest is identified.

5.1.4 Outline permission is sought for the remainder of the site, with scale and access for approval and the indicative layout is as shown on the accompanying application drawings for these elements. The outline scheme provides for a flexible delivery of employment space within use classes B1 and B8.

5.1.5 The site layout plan is shown in Appendix 9.1. The proposed schedule of accommodation is provided in Table 5A.

Table 5A Proposed Schedule of Accommodation

Full Planning Application			
Unit	Description	GIA (sqm)/units	GEA Summary (sqm)/units
Unit 2 (Warburtons)	B8 Warehouse B1 Offices	2,810sqm 460sqm Total – 3,270sqm	3,410sqm
Outline Planning Application			
Unit	Description	GIA (sqm)/units	GEA Summary (sqm)/units
Hotel	C1 Hotel	80 bedrooms 2,430sqm	80 bedrooms 2,860sqm
Public House	A3/A4 – Pub/restaurant	540sqm	590sqm
Unit 1	B8 Warehouse B1 Offices	9,750sqm 1,860sqm	11,870sqm
Unit 1 ext	Extension	4,640sqm	4,680sqm
Unit 3	B8 Warehouse	1,420sqm	1,470sqm
Unit 4	A3 Drive-thru restaurant	120sqm	150sqm
Unit 5	A3 Drive-thru restaurant	160sqm	180sqm
Unit 6	B1 Offices 50% B8 Warehouse 50%	1,590sqm 1,590sqm	3,400sqm
Unit 7	B1 Offices 50% B8 Warehouse 50%	1,170sqm 1,170sqm	2,520sqm
Unit 8	D2 Gym	720sqm 150sqm Total – 870sqm	940sqm

5.1.6 Therefore, the schedule of accommodation based upon the proposed use classes is provided in Table 5B.

Table 5B Proposed Schedule of Accommodation based on class uses

	GIA (sqm)/units
B1	Ancillary offices (associated with units 1 and 2)
	Units 6 and 7
Total B1	5,080sqm
B8	Units 1, 2, 3, 6 and 7 (including Unit 1 Ext)
	C1 - Hotel
	A3/A4 - Public House
	A3 - Drive Thru restaurants x2
	D2 - Gym

5.2 Access Arrangements

5.2.1 The vehicular access to the proposed development will be via a fifth arm of the roundabout junction of the A29 Shripney Road/A259/Rolls-Royce warehouse.

5.2.2 The footways on the western side of A29 Shripney Road will be linked into the site via the proposed site access and widened from their current 1.0m to provide a 3.0m shared cycle/footway along the site frontage to connect to the cycle/footway south of the A29/A259 roundabout. The site access arrangements are shown in Appendix 9.2.

- 5.2.3 A 3.0m wide cycleway/footway will be provided along the eastern boundary of the site which will run parallel to the A29 Shripney Road. This shared cycleway/footway will be linked to the existing similar facility to the south of the site access roundabout via a splitter island and dropped kerbs with tactile paving on the site access as shown in Appendix 9.2.
- 5.2.4 This link will connect the existing cycleway/footway facility to Shripney Village and hence not only benefit the users of the site but also the residents of Shripney Village.
- 5.2.4 Following feedback received during pre-application consultation, the applicant is prepared to provide a suitable pedestrian and cycle crossing facility across Rowan Way via S278 process. The exact location and type of crossing facility will be discussed at detailed planning stage.
- 5.2.5 Given that the LDO TA undertook a Stage 1 Road Safety Audit (RSA) of the site access and that the access arrangements remain unchanged as part of this proposal, it was agreed with WSCC that a Stage 1 RSA would not be required. However, WSCC suggested that a Designers Response to the LDO Stage 1 RSA to be provided.

Designer's Response to LDO TA Stage 1 RSA

- **Designers' Response to Problem 1**

The design of the proposed access to Salt Box is consistent with proposals included within a separate planning application recently awarded conditional approval (reference number BE/37/13) to construct a new access on to the A29 / A259 Bognor Regis Relief Road junction to serve land and a proposed grain store.

Appropriate signage will also be provided at the site access to warn the motorists of the presence of the cyclists.

- **Designers' Response to Problem 2**

This problem is not relevant because it is not proposed to widen the southbound entry and circulating area. The widening of the southbound entry and circulating area formed part of the LDO TA proposals.

- **Designers' Response to Problem 3**

This problem is not relevant because it is proposed to amend the existing road markings on the roundabout. The amendment to the road markings formed part of the LDO TA proposals.

- **Designers' Response to Problem 4**

This problem is not relevant because it is not proposed to make adjustments to the location of the roundabout's central island.

5.2.6 The aforementioned Designer's Responses to the Stage 1 RSA demonstrates how a relevant issue has been addressed to provide a safe environment for all users.

5.3 Parking

5.3.1 The car and cycle parking will be based upon West Sussex County Council's Revised County Parking Standards (2003) as per Table 5C below:

Table 5C Car and Cycle Parking Provision

	Car Parking (maximum)	Cycle Parking (minimum)
B1 Offices	1 space per 30sqm	Long stay 1 per 150sqm Short stay 1 per 500sqm
B8	1 space per 100sqm	Long stay 1 per 500sqm Short stay 1 per 1,000sqm
Hotel	1 space per bedroom	Not provided
Gym	1 space per 22sqm	Long stay 1 per 4 staff + visitor/customer parking
Public House and Restaurants	1 space per 5sqm of public area and 25 spaces per bar	Long stay 1 per 4 staff Short stay 1 space per 25sqm

5.3.2 This gives the following parking requirements for the Phase 1 development as set out in Table 5D.

Table 5D Car Parking Requirements

Unit	GIA Sqm						Car Parking Standard							Provision
	B1	B2	B8	A3/A4	Hotel	Gym	B1	B2	B8	A3/A4	Hotel	Gym	Total	
1	1860	-	14390	-	-	-	62	-	144	-	-	-	206	200
2	460	-	2810	-	-	-	16	-	28	-	-	-	44	70
3	-	-	1420	-	-	-	-	-	14	-	-	-	50	110
4	-	-	-	120	-	-	-	-	-	24	-	-	24	19
5	-	-	-	160	-	-	-	-	-	32	-	-	32	17
6	1590	-	1590	-	-	-	53	-	16	-	-	-	69	32
7	1170	-	1170	-	-	-	22	-	12	-	-	-	34	26
8	-	-	-	-	-	870	-	-	-	-	-	40	40	21
Hotel	-	-	-	-	80 beds	-	-	-	-	-	80 beds	-	80	87
Public House	-	-	-	540	-	-	-	-	-	108	-	-	108	39
Total														621

5.3.3 Table 5D demonstrates that the total car parking provision of 621 spaces (including 32 disabled bays) will be 90% of the maximum allowed (i.e. 687 spaces) under WSCC's parking standards. Given the dual B1/B8 aspects to this proposal, this provision is considered to be adequate to support the scheme.

5.3.4 Additionally, there will be parking spaces for 60 vans and 3 HGVs for Unit 2 (Warburton). The remaining development will have a total of 33 HGV parking spaces.

Cycle Parking

5.3.4 There will be a total of 12 cycle parking spaces for Unit 2 which is in line with WSCC's cycle parking standards. These spaces will be provided in a secure and covered cycle store close to the building.

5.3.5 The remaining part of the development which is subject to an Outline Planning application will also be provided with cycle parking in line with the WSCC's cycle parking standards as shown in Appendix 9.1.

5.4 Servicing Arrangements

5.4.1 The site layout will be designed such that all delivery/collection vehicles can enter and exit the site in forward gear.

- 5.4.2 AutoTRACK assessment using a 16.5m articulated vehicle, 10m rigid lorry and 11.4m refuse truck is shown in Appendices 9.3, 9.4 and 9.5 respectively. This assessment shows that the Unit 2 layout is designed to accommodate all types of vehicles that are envisaged to serve Warburton.
- 5.4.3 The assessment also shows that the internal access roads and turning areas are adequately designed.

6.0 VEHICULAR TRAFFIC GENERATION

6.1 Methodology

6.1.1 As part of an extensive pre-application consultation, it was agreed to use the following trip rates:

- For B1 use: Trip rates from ADL Scoping TA to be used;
- For B8 use: Trip rates from ADL Scoping TA to be used;
- For Hotel: Trip rates agreed with WSCC on 19th April 2017 (see Appendix 10.1)
- For Public House: Trip rates agreed with WSCC on 26th May 2017 (see Appendix 10.2)
- For Drive thru restaurants: Trip rates agreed with WSCC on 26th May 2017 (see Appendix 10.3)
- For Gym (D2 use): TRICS output provided in Appendix 10.4

6.1.2 The vehicles trips have been calculated for the commuter peak hours of:

- AM peak: 08:00-09:00 hours
- PM peak: 17:00-18:00 hours

6.1.3 The vehicle trip rates have been calculated for the following use classes and their respective gross internal floorspaces, as per Table 5B:

- | | | |
|---|---|-------------|
| • B1 Offices (including ancillary office space) | = | 5,080sqm |
| • B8 Warehouse | = | 21,380sqm |
| • C1 Hotel | = | 80 bedrooms |
| • A3/A4 Public House | = | 540sqm |
| • A3 Drive-thru restaurants | = | 280sqm |
| • D2 Gym | = | 870sqm |

6.2 Vehicle Trips

B1 Offices (5,080sqm)

6.2.1 The peak hour trip rates and the peak hour vehicle trips associated with the total gross internal B1 Office floorspace of 5,080sqm are provided in Table 6A.

Table 6A B1 Office Trip Rates and Vehicle Trips

	B1 Trip Rates		B1 Vehicle Trips (5,080sqm)		
	In	Out	In	Out	2-way
08:00-09:00	1.287	0.101	865	5	70
17:00-18:00	0.043	1.050	2	53	55

6.2.2 Table 6A shows that the proposed B1 Office floorspaces could generate 70 and 55 two-way vehicle trips during AM and PM peak hours respectively.

B8 Warehouse (21,380sqm)

6.2.3 The peak hour trip rates and the peak hour vehicle trips associated with the total gross internal B8 Warehouse floorspace of 21,380sqm are provided in Table 6B.

Table 6B B8 Warehouse Trip Rates and Vehicle Trips

	B8 Trip Rates		B8 Vehicle Trips (21,380sqm)		
	In	Out	In	Out	2-way
08:00-09:00	0.120	0.070	26	15	41
17:00-18:00	0.048	0.131	10	28	38

6.2.2 Table 6B shows that the proposed B8 Warehouse floorspaces could generate 41 and 38 two-way vehicle trips during AM and PM peak hours respectively.

C1 Hotel (80 Bedrooms)

6.2.4 The peak hour trip rates and the vehicle trips associated with the hotel with 80 bedrooms are provided in Table 6C.

Table 6C Hotel Trip Rates and Vehicle Trips

	Hotel Trip Rates		Hotel Vehicle Trips (80 bedrooms)		
	In	Out	In	Out	2-way
08:00-09:00	0.147	0.252	12	20	32
17:00-18:00	0.198	0.105	16	8	24

6.2.5 Table 6C shows that the proposed hotel could generate 32 and 24 two-way vehicle trips during AM and PM peak hours respectively.

A3/A4 Public House (540sqm)

6.2.7 The peak hour trip rates and the vehicle trips associated with the proposed public house with the gross internal area of 540 sqm are provided in Table 6D.

Table 6D A3/A4 Public House Trip Rates and Vehicle Trips

	A3/A4 Trip Rates		A3/A4 Vehicle Trips (540sqm)		
	In	Out	In	Out	2-way
08:00-09:00	0.000	0.000	0	0	0
17:00-18:00	3.410	2.105	18	11	29

6.2.8 Table 6B shows that the proposed B8 Warehouse floorspaces could generate 29 two-way vehicle trips during the PM peak hour

Two A3 and A4 Drive-thru Restaurants (280sqm)

6.2.9 The peak hour trip rates and vehicle trip rates associated with the proposed two drive-thru restaurants with a total gross internal area of 280sqm are provided in Table 6E.

Table 6E Drive-thru Trip Rates and Vehicle Trips

	Drive-thru Trip Rates		Drive-thru Vehicle Trips (280sqm)		
	In	Out	In	Out	2-way
08:00-09:00	9.328	8.657	26	24	50
17:00-18:00	9.598	9.164	27	26	53

6.2.10 Not all trips to these restaurants are new to the local road network. It was agreed with WSCC that out of the total generated vehicle trips associated with the proposed drive-thru restaurants, 60% would be diverted/pass-by, 20% would be shared trips associated with the overall development, and the remaining 20% would be new to the local road network. Based on these proportions, Table 6F differentiates the type of vehicle trips during AM and PM peak hours.

Table 6F Drive-thru Vehicle Trips

	Diverted/Pass-by (60%)		Shared (20%)		New (20%)	
	In	Out	In	Out	In	Out
08:00-09:00	16	14	5	5	5	5
17:00-18:00	16	16	6	5	5	5

6.2.11 Table 6F shows that the drive-thru restaurants could generate 10 two-way new vehicle trips during AM and PM peak hours.

D2 Gym (870sqm)

6.2.12 The peak hour trip rates and vehicle trip rates associated with the proposed gym with a total gross internal area of 870sqm are provided in Table 6G

Table 6G Gym Trip Rates and Vehicle Trips

	Gym Trip Rates		Gym Vehicle Trips (870sqm)		
	In	Out	In	Out	2-way
08:00-09:00	0.399	0.599	3	5	8
17:00-18:00	1.796	0.798	16	7	23

6.2.13 It was agreed that 30% of the visitors associated with the proposed gym would be from the proposed development. Based on these proportions, Table 6H differentiates the type of vehicle trips during AM and PM peak hours.

Table 6H Gym Vehicle Trips

	Shared (30%)		New (70%)	
	In	Out	In	Out
08:00-09:00	1	2	2	3
17:00-18:00	5	2	11	5

Total Development

6.2.14 The total peak hour vehicle trip is associated with the overall development entering and exiting the site access (discounting shared trips) are provided in Table 6I.

Table 6I Total Proposed Development

	B1 Offices		B8 Warehouse		Hotel		Pub		Drive-thru		Gym		Total		
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	2-way
08:00-09:00	65	5	26	15	12	20	0	0	21	19	2	3	126	62	188
17:00-18:00	2	53	10	28	16	8	18	11	21	21	11	5	78	126	204

6.3 Trip Distribution

6.3.1 The trip distribution was agreed with WSCC on 24th May 2017. The agreed percentage trip distribution is provided in Appendix 11.0.

- 6.3.2 It was also agreed that for the purposes of assessment, 100% of the proposed development traffic on the A259/B2132 junction would be straight through traffic.
- 6.3.3 The development traffic has been distributed on to the A259/A27 Chichester Bypass roundabout Census Origin-Destination data which shows that out of the total generated traffic, 14% would arrive/depart from this roundabout.
- 6.3.4 The peak hour vehicular traffic as shows in Table 6I has been distributed on to the site access roundabout and A29/Rowan Way roundabout on the basis of the agreed percentage distribution. The distributed development traffic across these roundabouts is shown diagrammatically in Appendix 12.0.
- 6.3.5 Similarly, the generated traffic distributed across the A259/B2132 AND a259/A27 junction is shown diagrammatically in Appendices 13.0 and 14.0 respectively.

7.0 TRAFFIC IMPACT

7.1 Increase in Vehicular Traffic

7.1.1 The increase in vehicular traffic as a result of the proposed development on the road network is provided in Table 7A.

Table 7A Increase in Vehicular Traffic in 2031 (Two-Way)

			2031 Reference (Appendices 6.0-8.0)	Plus Dev Traffic (Appendices 12.0-14.0)	% Increase
AM	A29/A259 Felpham Relief Rd Rdbt	A29(N)	1736	+37	+2.1%
		A259	1861	+25	+1.3%
		A29(S)	3277	+94	+2.9%
	A29/A259 Rowan Way Rdbt	A29(N)	3277	+94	+2.9%
		Steyning Way	663	0	0
		A29(S)	1617	+62	+3.8%
		Rowan Way	2073	+32	+1.5%
	A259/B2132	A259(W)	2296	+25	+1.1%
		B2132(N)	297	0	0
		A259(E)	2218	+25	+1.1%
		B3132(S)	219	0	0
	A259/A27 Chichester Bypass Rdbt	A259(E)	1879	+27	+1.4%
		A27(S)	4763	+15	+0.3%
		A259(W)	2039	+12	+0.6%
		A27(N)	4609	0	0
PM	A29/A259 Felpham Relief Rd Rdbt	A29(N)	2040	+40	+1.9%
		A259	1995	+27	+1.4%
		A29(S)	3673	+105	+2.9%
	A29/A259 Rowan Way Rdbt	A29(N)	3673	+105	+2.9%
		Steyning Way	729	0	0
		A29(S)	1755	+69	+3.9%
		Rowan Way	2413	+36	+1.5%
	A259/B2132	A259(W)	2220	+27	+1.2%
		B2132(N)	296	0	0
		A259(E)	2488	+27	+1.1%
		B3132(S)	564	0	0
	A259/A27 Chichester Bypass Rdbt	A259(E)	2171	+29	+1.3%
		A27(S)	5200	+19	+0.4%
		A259(W)	1237	+8	+0.6%
		A27(N)	4236	+2	+0.0%

7.1.2 Table 7A shows that the maximum increase of up to 4% could occur on A29 in the vicinity of the site during AM and PM peak hours as a result of the proposals.

7.1.3 The increase in traffic on the A259/B2132 junction and A259/A27 Chichester Bypass roundabout is in the range of 0% to 1.4%. This increase is considered to be very minimal and hence these two junctions have not been assessed for capacity.

7.1.4 Given the maximum increase in trips of up to 4% could occur at the A29 in the vicinity of the site; the A29/A259 Felpham Relief Road roundabout (site access roundabout) and A29/Rowan Way roundabout have been assessed for capacity.

7.1.5 The proposed development flows across these junctions has been added to the 2031 Reference flow to obtain 2031 Reference plus development flows. These flows have been provided diagrammatically in Appendices 15.0 and 16.0.

7.2 Capacity Assessment: Off Site Junctions

7.2.1 The A29/A259 Felpham Relief Road roundabout A29/A259 Rowan Way roundabout and A259/B2132 junction has been assessed for capacity for the following two scenarios using TRL's Junctions 9 software:

- 2031 Reference (adjusted) flows (Appendices 6.0 and 7.0)
- 2031 Reference + Development flows (Appendices 15.0 and 16.0)

A29/A259 Felpham Relief Road Roundabout

7.2.2 The A29/A259 Felpham Relief Road roundabout has been assessed using TRL's Junctions 9 software. The geometry plan is shown in Appendix 17.1. The ARCADY outputs are provided in Appendix 17.2 and are summarised in Table 7B.

Table 7B Capacity Assessment: A29/A259 Felpham Relief Road

		2031 Reference		2031 Ref + Dev		Difference in queue
		RFC	Queue	RFC	Queue	
AM	A29(N)	0.45	1	0.47	1	0
	A259 Felpham Relief Rd	0.85	5	0.89	8	+3
	Oldlands Farm Access	0.09	0	0.09	0	0
	A29(S)	0.88	7	0.93	11	+4
	Site Access	0.00	0	0.19	0	0
PM	A29(N)	0.69	2	0.73	3	+1
	A259 Felpham Relief Rd	0.93	10	0.98	19	+9
	Oldlands Farm Access	0.23	0	0.23	0	0
	A29(S)	0.94	13	0.97	20	+10
	Site Access	0.00	0	0.47	1	+1

RFC = Ratio of flow to capacity

Queue = Measured in pcu's

7.2.3 Table 7B shows that the A29/A259 Felpham Relief Road Roundabout which operates above the theoretical capacity (i.e. RFC value of more than 0.85) in the Reference scenario continues to operate above capacity with the proposed development in place.

7.2.4 However, the maximum increase in queues as a result of the proposal of only ten pcus could occur on the A29 (south) approach during PM peak hours. This increase is not considered to be severe for a peak hour scenario.

7.2.5 Nonetheless, a robust Travel Plan will be implemented to reduce the number of private car trips to the development. This would ensure the traffic impact of the development on this roundabout is reduced.

A29/A259 Rowan Way Roundabout

7.2.6 The A29/A259 Rowan Way roundabout has been assessed using TRL's Junctions 9 software. The geometry plan is shown in Appendix 18.1. The ARCADY outputs are provided in Appendix 18.2 and are summarised in Table 7C.

Table 7C Capacity Assessment: A29/A259 Rowan Way Roundabout

		2031 Reference		2031 Ref + Dev		Difference in queue
		RFC	Queue	RFC	Queue	
AM	A29 (N)	0.84	5	0.86	6	+1
	Steyning Way	0.33	1	0.34	1	0
	A29 (S)	0.49	1	0.52	1	0
	A259 Rowan Way	0.90	8	0.94	12	+4
PM	A29 (N)	0.96	16	0.99	27	+11
	Steyning Way	0.91	7	0.96	10	+3
	A29 (S)	0.52	1	0.55	1	0
	A259 Rowan Way	0.87	6	0.89	7	+1

RFC = Ratio of flow to capacity

Queue = Measured in pcu's

7.2.7 Table 7C shows that the A29/A259 Rowan Way Roundabout which operates above the theoretical capacity (i.e. RFC value of more than 0.85) in the Reference scenario continues to operate above capacity with the proposed development in place.

7.2.8 However, the maximum increase in queues as a result of the proposal of only 11 pcus could occur on the A29 (north) approach during PM peak hours. This increase is not considered to be severe for a peak hour scenario.

7.2.9 Nonetheless, a robust Travel Plan will be implemented to reduce the number of private car trips to the development. This would ensure the traffic impact of the development on this roundabout is reduced.

7.2.10 A Draft Travel Plan for is also submitted in support of this application.

7.3 Creation of Local Jobs

7.3.1 There are simply not enough jobs in Arun District to support the local population. In 2015, there were just 0.63 jobs for every 16-64-year-old resident. By contrast, there are more jobs in neighbouring Chichester than there are 16-64-year-old residents. This shows a very low level of local labour market containment, which means that working age residents disproportionately have to travel to work.

7.3.2 In 2011, more than half (27,200) of Arun's working residents commuted out of the District to work every day, including over 10,500 who travelled to Chichester and 5,700 who worked in Worthing. This lack of local jobs and high level of out-commuting adds to pressure on the already stretched local transport infrastructure, particularly the A27.

7.3.3 The Salt Box site will also deliver over 500 new private sector jobs once the project is complete. These will include a broad range of jobs that will help to increase labour market containment in Arun potentially also reducing pressures on the local road network and reducing out commuting to other areas.

8.0 SUMMARY AND CONCLUSIONS

- 8.1 This Transport Assessment has been prepared by ADL Traffic and Highways Engineering Ltd and the assessment has been informed by an extensive pre-application discussion with WSCC.
- 8.2 The planning application is submitted as a hybrid application, part in full, and part outline with scale and access for approval only. The application comprises:
- Full planning application for Class B8 warehouse, fuel island, car parking, access roads, plus engineering works, landscaping and associated works; and;
 - Outline planning application for the development of employment units, warehouse, hotel, 2 No. drive thru units, public house, gym, plus engineering works, landscaping and associated works.
- 8.3 The application is submitted as a hybrid application, to allow full details to be submitted for the parcel of land to the rear of the site, where Warburtons has a requirement for a Class B8 warehouse for the storage and distribution of bread and products. This unit has been designed to meet their required specification and as such, detailed design information is submitted in full for this aspect of the proposal, as well as the associated infrastructure and landscaped areas of the wider site.
- 8.4 The full application also provides for all the necessary highway and landscaping infrastructure together with drainage works and attenuation ponds. This will provide a serviced site to allow for the delivery of the remainder as tenant interest is identified. Outline permission is sought for the remainder of the site, with scale and access for approval and the indicative layout is as shown on the accompanying application drawings for these elements. The outline scheme provides for a flexible delivery of employment space within use classes B1 and B8.
- 8.5 The site encompasses an area of 29.66 acres and is currently farmland. The site is located on the northern edge of Bognor Regis approximately 3km north of the town centre, 2.5km east of North Bersted and less than a kilometre south of the village of Shripney.

- 8.6 The site is boarded by farmland to the west and north, the A29 Shripney Road to the east and a caravan site to the south.
- 8.7 There are 3.0m wide shared cycleway/footway on A29 to the south of the site access roundabout which provide pedestrian and cycle access to the bus stop on A29 (south of Rowan Way roundabout) and residential development to the south of the site. There is also a 3.0m shared cycle/footway which runs along the southside of the A259 Felpham, Relief Road which crosses the A29 south of the roundabout. There is a dropped kerb, uncontrolled staggered crossing point on the A29 south of the roundabout junction with the A259 for pedestrians and cyclists.
- 8.8 The shared cycleway/footway along A259 Felpham Relief Road provide pedestrian and cycle access from the A29/A259 roundabout to the Felpham residential areas of Flansham along A259 to the east of the site. West Sussex County Council are creating a shared cycle path along the A259, which will start at the Hoe Lane Roundabout in Flansham and end at the Clymping roundabout near Clymping Cricket Club. This will link up with existing shared cycle paths on Felpham Relief Road in the west and Littlehampton to the east.
- 8.9 The proposal provides a 3.0m wide shared cycleway/footway facility along the eastern boundary of the site parallel to the A29. This link will connect the existing cycleway/footway to Shripney Village. This link will connect the existing cycleway/footway facility to Shripney Village and hence not only benefit the users of the site but also the residents of Shripney Village.
- 8.10 Following feedback received during pre-application consultation, the applicant is prepared to provide a suitable pedestrian and cycle crossing facility across Rowan Way via S278 process. The exact location and type of crossing facility will be discussed at detailed planning stage. A Draft Travel Plan is also submitted in support of this planning application.
- 8.11 It is proposed to provide a total of 621 car parking spaces (including 32 disabled bays) which equate to 90% of the maximum allowed (i.e. 687 spaces) under WSCC's parking standards. Given the dual B1/B8 aspects to this proposal, this provision is considered to be adequate to support the scheme. Additionally, there will be parking spaces for 60 vans and 3 HGVs for Unit 2 (Warburton). The remaining development will have a total of 33 HGV parking spaces.

- 8.12 There will be a total of 12 cycle parking spaces for Unit 2 which is in line with WSCC's cycle parking standards. These spaces will be provided in a secure and covered cycle store close to the building. The remaining part of the development which is subject to an Outline Planning application will also be provided with cycle parking in line with the WSCC's cycle parking standards.
- 8.13 AutoTRACK assessment shows that the Unit 2 layout is designed to accommodate all types of vehicles that are envisaged to serve Warburton. The assessment also shows that the internal access roads and turning areas are adequately designed.
- 8.14 The following four junctions have been considered as part of the assessment:
- Junction 1 - A29/A259 Felpham Relief Road Roundabout;
 - Junction 2 - A29/A259 Rowan Way Roundabout;
 - Junction 3 - A259/B2132 staggered junction; and,
 - Junction 4 - A259/A27 Chichester Bypass Roundabout.
- 8.15 The network AM and PM peak hours are:
- AM peak hours 08:00 – 09:00 hours
 - PM peak hours 17:00 – 18:00 hours
- 8.16 The 2031 Reference Flows for the aforementioned four junctions were obtained from WSCC. These flows contain the committed developments up to 2031. These flows however did not provided flows on Steyning Way. The traffic survey was undertaken on Rowan Way roundabout in May 2017. The surveyed flows entering and existing Steyning Way were then added to 2031 Reference flows to obtain 2031 adjusted reference flows.
- 8.17 The development has a potential to generate a total of 188 and 204 two-way vehicle trips during the AM and PM peak hours respectively. These generated flows have been distributed onto the local road network based on 2011 Census origin-destination. The distribution methodology was agreed with WSCC's highways officer.
- 8.18 The threshold analysis showing that the maximum increase in traffic of up to 4% could occur on the A29 in the vicinity of the site.

- 8.19 The increase in traffic on the A259/B2132 junction and the A259/A27 Chichester Bypass roundabout is in the range of 0% to 1.4%. The increase is considered to be very minimal and hence, these junctions are not assessed for capacity.
- 8.20 The capacity assessment demonstrates that the A29/A259 Felpham Relief Road roundabout and A29/A259 Rowan Way roundabout operates above theoretical capacity in the 2031 Reference scenario. Hence, these roundabouts continue to operate above theoretical capacity with the development in place. However, the increase in queues on the approaches to these roundabouts as a result of the development is not considered to be severe.
- 8.21 The Salt Box site will also deliver over 500 new private sector jobs once the project is complete. These will include a broad range of jobs that will help to increase labour market containment in Arun potentially also reducing pressures on the local road network and reducing out commuting to other areas.
- 8.22 A robust Travel Plan will be implemented to reduce the number of private car trips to the development. This would ensure that the traffic impact of the development on the roundabout is reduced.
- 8.23 The TA demonstrates that there are no highway reasons to refuse this planning application.

PRE-APPLICATION RESPONSE WEST SUSSEX COUNTY COUNCIL

- 1.1 Email from ADL to WSCC (20th April 2017)
- 1.2 Pre-App Response from WSCC (26th April 2017)
- 1.3 Email from WSCC to ADL (10th May 2017)
- 1.4 Email Correspondence of 24th May 2017
- 1.5 Email Correspondence of 26th May 2017

Amol Pisal

From: Amol Pisal
Sent: 18 April 2017 18:24
To: ian.gledhill@westsussex.gov.uk
Subject: Saltbox - Meeting notes + additional comments
Attachments: Hotel.PDF; Industrial Estate.PDF; Public House.PDF

Dear Ian

It was good to meet you this afternoon and thank you for your time. I have tried to sum our conversation + other items that required the consideration after the meeting i.e. TRICS trip rates.

I hope this information assists you in preparation of a formal written pre-app response. Please contact me if you require any further information to assist you in your formal written response.

Junctions to be assessed

As discussed, please could you provide us with the 2031 Base + Committed flows for the following junctions. *Also please could you confirm if the flows exclude the Saltbox committed traffic (to avoid double-counting):*

1. A29/A259 roundabout;
2. A29/Rowan Way Roundabout;
3. A259/B2132 junction; and
4. Chichester Bypass/Bognor Road roundabout.

I understand that Junction 3 is to be assessed as there is perceived notion of capacity issue at this junction while Junction 4 would be required by HE to be assessed.

Traffic Distribution

- The traffic will be distributed on to Junctions 1 and 2 as per the LDO TA.
- 100% of the development traffic on A259 will be 'straight-ahead traffic' at Junction 3
- Out of the total development traffic turning into and out of Rowan Way at Junction 2, 50% will be assumed to travel to/from Junction 4.

The distribution assumption across Junctions 3 and 4 is preliminary at this stage. Based up on the distribution, we will determine the need to assess Junctions 3 and 4.

TRICS

The Peak hours to be assessed will be 08:00 – 09:00 and 17:00 – 18:00 (same as LDO TA and SATURN model).

- As discussed at the meeting, we will use the B1 trip rates from LDO TA for Units 1 and 2 of Phase 1.
- For B8 use, we will use the TRICS trip rates used in our scoping study report (Table 6A).
- The UNIT 1 extension will be based up on similar B1/B8 ratio and again, we will use the trip rates from LDO TA for B1 use and trip rates from Table 6A for B8 use.
- For B1/B8 units, we will use Industrial Estate trip rates as per attached.

APPENDIX 1.1 E-MAIL FROM ADL TO WSCC 20th APRIL 2017
--

- Similarly, I have attached trip rates for public house and hotel.
- TRICS database does not contain any coffee shop type A3 units. We undertook an ATC count at Costa in Barnstaple Retail Park. The store was 160sqm (similar to the one proposed). Below is the screenshot of the data for Costa at Barnstaple.

Costa (Barnstaple Retail Park): Weekday

Time Range	In	Out	Two-way
00:00-01:00	0	0	0
01:00-02:00	0	0	0
02:00-03:00	0	0	0
03:00-04:00	0	0	0
04:00-05:00	0	0	0
05:00-06:00	0	0	0
06:00-07:00	3	1	4
07:00-08:00	10	7	17
08:00-09:00	19	11	30
09:00-10:00	19	13	32
10:00-11:00	15	16	31
11:00-12:00	18	15	33
12:00-13:00	19	20	39
13:00-14:00	14	15	29
14:00-15:00	10	14	24
15:00-16:00	10	11	21
16:00-17:00	10	10	21
17:00-18:00	5	14	19
18:00-19:00	6	9	15
19:00-20:00	2	4	6
20:00-21:00	0	0	0
21:00-22:00	0	0	0
22:00-23:00	0	0	0
23:00-24:00	0	0	0
Daily	180	180	320

Also, not all trips to the A3 unit would be completely new to the road network – up to 60% would be diverted/pass-by, 20% would be shared within the proposed development and the remaining 20% would be new trips during weekday am and pm peak hours.

RSA Safety Audit

You confirmed that because the proposal is not significantly different from LDO proposal and the Stage 1 RSA undertaken by Systra is less than 5 years old, we could use the Stage 1 RSA findings and recommendations and provide mitigation measures as and where required.

In terms of the site access on to A29/A259 roundabout, you informed me that the access proposed within LDO TA was appropriate nevertheless, the pedestrian access across this junction will require consideration as this was pinpointed within Systra's Stage1 RSA. I advised that the pedestrian crossing across the site access could be moved slightly to the west away from the roundabout.

You also advised me that any measures on the public highway that were not proposed within the LDO TA will require Stage 1 RSA.

Mitigation

I suggested that the mitigation measures proposed by LDO at A29/A259 roundabout would work theoretically; but in reality this may not be the case. I suggested that our proposed mitigation may not be different from what LDO TA have already proposed. However, the sum of money that would be required to carry out the 'theoretical mitigation' could be offered to WSCC as S106 contribution and WSCC could use this sum of money for any other transport measures which are relevant to the development. You agreed to this strategy and you also advised that this would be down to negotiations once the traffic impact has been assessed.

You suggested that in situation where the improvements to the junctions (in order to mitigate the impact) are not feasible, the relevant transport measures could be for e.g. robust travel planning or towards public transport.

You informed me that LDO TA was not forthcoming with the mitigation measures in relation to the accessibility by non-car modes of transport. You advised me that WSCC could look for mitigation in the form of Toucan Crossing on Rowan Way. We would certainly consider your requirement regarding the Toucan Crossing; although given this a thought, the location of toucan crossing is remote from the application site. Again, the requirement of a Toucan Crossing on Rowan Way could be negotiated once the traffic impact has been assessed.

I trust the above clarifies the matters. Please do not hesitate to contact me on 01454332100 should you have any queries.

I look forward to your written response. Thank you.

Kind regards

Amol Pisal MCIHT

Senior Traffic Engineering Ltd

ADL Traffic Engineering

ADL House, Oaklands Business Park, Armstrong Way, Yate, Bristol BS37 5NA

T 0145 4332 100 :: amol@adltraffic.co.uk :: www.adltraffic.co.uk

FROM: Ian Gledhill TO: ADL Highways Engineering Ltd
FAO: Amol Pisal

SUBJECT: PRE-017-17 - The proposal is to develop the site in two phases. The phase 1 comprises 14,850 sqm of b8 warehouse plus a 4,645 sqm extension i.e. 19,495 sqm in total. The phase 2 comprises 5.6 acres of business park type use.

Saltbox Site, Shripney Road, Bognor Regis

Comments are made in connection with the Scoping Study Transport Assessment dated 7th March 2017. Where possible, comments are made against the specific points in the Scoping Study.

Certain matters have since been discussed in relation to the scope and in some areas an alternate approach has been agreed. Where this is the case, additional comments are provided in *blue italics*. These comments/approach supersede that proposed as part of the scope.

4.2.1 – The two turning count survey locations are noted. As the extent of the junction assessments has not yet been agreed, turning counts at other junctions may also be required. Details of these and the extent of the study area should be agreed as part of this scoping study.

It has now been agreed to use data from the model used for the Arun District Council Transport Study. Scenarios are available that specifically excluded the LDO (referred to as Enterprise Bognor Regis (EBR) in the LP Study. The proposed development can therefore be manually added in to assess the impact. Data will be extracted from the model for those junctions to be assessed. There is no charge for this data; there will only be a charge applied if additional model runs are sought. At present, data from the model is to be provided for,

1. A29/A259 roundabout;
2. A29/Rowan Way Roundabout;
3. A259/B2132 junction; and
4. Chichester Bypass/Bognor Road roundabout.

As discussed, the above list of junctions should not be taken as exhaustive. There is still a need for all junctions that will experience an increase of 30 or more entry movements in any given hour to be identified. Again, WSCC can agree with you those junctions that will need to be assessed once some idea of distribution is available.

Whilst data can be provided, any assessment required for A27 junctions should be agreed directly with the HE.

With regards to the above junctions, further information has been provided with the intention to distribute traffic by,

- The traffic will be distributed on to Junctions 1 and 2 as per the LDO TA.
- 100% of the development traffic on A259 will be 'straight-ahead traffic' at Junction 3
- Out of the total development traffic turning into and out of Rowan Way at Junction 2, 50% will be assumed to travel to/from Junction 4.

With respects to each of these points,

- This distribution was based upon the West Sussex County Model. The use of this model resulted in the majority of trips arriving and departing to the west. The data underpinning the WSCTM is somewhat old. Census Travel to Work data should be used to ensure that the distribution of flows from the model are still valid.
- The possibility of turning movements can be ruled out. However for the purposes of the assessment, assuming all development traffic remains on the A259 would produce a more worst case assessment for the modelling of the minor road arms.
- This needs to be validated in some way, presumably using Census data.

4.3.1. – Details of those committed developments should ideally be agreed in advance of any detailed modelling work commencing.

The use model flows will include a number of committed developments in the reference case scenarios. From the Transport Study available on the ADC website, it's a little unclear as to what is included from the Oldands Farm site, although some development on this included. A full list of committed developments is available within an appendix of the study.

4.4.1 – Can the TEMPRO outputs be provided? Also, account needs to be given to the growth proposed as part of the Arun DC Local Plan (it's unclear if the TEMPRO growth accounts for this). The LP is presently under examination and details of the planning growth are available on the Arun DC website.

This comment effectively is superseded by the use of model flows for 2031.

5.2.1 - The arm from the A29/BRRR roundabout serving the Salt Box has been considered only to serve the grain store approved as part of BE/37/13. It has not been considered to serve the proposed development. There is a planning condition on BE/37/13 restricting use to the grain store.

A Stage One RSA is required to consider the use of this arm in connection with the uses now proposed. A Stage One RSA was submitted for this arm as part of the transport work associated with the LDO.

The Stage One RSA is already available as an appendix G in the LDO TA. In principle, given that the access arrangements remain unchanged, there's no reason why this RSA could not be applied. You will need to provide a new Designers Response however.

Any further works (such as those related to the points below) will need to be the subject of a Stage One RSA. The Audit and works will need to be agreed prior to any application being determined.

5.2.2. and 5.2.3 – Plans and details will be required for the works proposed. These works will need to be the subject of a Stage One RSA. Consideration was also sought as part of discussions on the LDO regarding accessibility by sustainable modes. This particularly included walking and cycling, and the potential provision of controlled crossing facilities over the A259 Bognor Regis Relief Road.

The accessibility of the site needs to be considered in the round. There is scope to look at the location of improved crossing facilities along the A259 (in particular Rowan Way) and how these tie in with the existing footway/cycle network.

5.3.1 – The standards quoted in table 5B are those from 1995. The 2003 standards are those that should be applied. For B1 this amounts to 1 space per 30sqm, B2 1 space per 40sqm, and for B8 1 per 100sqm. Parking provision should be revisited against these standards. Alternately, an evidence led approach can be applied to demonstrate that the parking proposed is adequate for the intended occupier's purpose.

5.3.2. – The headings within table 5C should be revisited as these refer to B2 uses. It is understood that only B1 and B8 uses are proposed.

6.1.2 – It's noted that reference is made to B8 warehouses with ancillary offices are applied. Confirmation is sought that the TRICS B8 with ancillary office reflects that forming part of the current proposal whereby the B1 element forms quite a large part of the overall floor space proposed. If this is not the case, it may be more appropriate to apply a separate trip rate for the B1 element.

6.1.8 - The second phase calculations do not appear to include trips associated with the 4,645sqm extension to the first phase unit.

It's noted that this is included in the phase 1 assessment (point 6.1.3).

6.2 - It is possible that some of the trips in the peak period are not associated with travel to work. It is recommended that Census Journey to Work travel data is utilised to distribute trips onto the local network.

7.1.1 – The junctions in this section aren't in West Sussex. In principle, WSCC would require those junctions to be assessed where the development is forecast to result in increased entry flows of 30 or more vehicle movements. This threshold is set out in the WSCC TA Guidance. Also, is there any particular reason why 2027 has been used? The year should be based upon the opening year of the development, and it's accepted that this may well be 2027.

7.2.1 – The scenarios are agreed, notwithstanding the above comment on future year and that phase 1 (rather than phase 2 as the scenarios suggested) would be first.

7.3 – A framework travel plan should accompany the application, although the expectation is that the respective occupiers would implement their own travel planning measures. The detailed unit specific travel plans would be secured by condition.

8.3 and 8.4 – Some additional zeros appear to have been added to the proposed floor spaces.

Other Matters relating to the Submitted Scope

I would strongly recommend approaching Highways England to ensure they have no requirement for off-site junctions to be assessed. I am aware that the HE has been previously involved in discussions on the LDO.

Additional Matters

WSCC are aware that the TA for the LDO identified capacity issues at the A29/A259 and A259 Rowan Way Roundabouts. Mitigation was proposed at both involving the increase in entry widths on those over capacity arms.

Concerns were raised with the mitigation proposed at both of these locations. This mitigation works in theory, but looking at the turning counts in reality they may make

very little difference. It's recognised that the mitigation proposed by the Saltbox Farm development may reflect that previously put forward with the LDO. Notwithstanding the issues previously raised, (which were based upon trip rates using B1 and B2 type use rather than predominantly B8), WSCC will consider the impacts of the development proposed and comment accordingly once the assessment work is complete.

As to the delivery of the mitigation, if the development is resulting in capacity issues, then any works required to mitigate these should be implemented by the developer; WSCC would only accept a contribution towards mitigation if there were a scheme intended to be delivered by WSCC.

In the event that mitigation cannot be achieved by way of physical highway changes, an alternate approach may be required. This could for example use a more robust scheme of travel planning.

A revised master plan has also been submitted to WSCC. This includes various other uses not included in the scope (namely a hotel and drive-thru). WSCC accept that the nature of these uses will generate few new peak hour movements onto the local highway network. WSCC agree to the additional scoping covering these matters as set out in the email dated 18th April 2017.

Ian Gledhill
Strategic Planning

Amol Pisal

From: Ian Gledhill [REDACTED]
Sent: 26 May 2017 15:49
To: Amol Pisal
Subject: RE: Saltbox

Hello Amol, I've been through the TRICS outputs. I'm not particularly concerned with the trip rates for the hotel and drive thru given that these uses generate there peaks away from the typical network peaks, and for the drive-thru that the significant majority of trips will already be on the network.

Only comment is that a freestanding site is included for the industrial unit. I doubt removing this will make any great difference but I'd recommend this is taken out.

Kind regards

Ian Gledhill

Ian Gledhill BSc MIHE MCIHT| Principal Planner – County Highways - Planning Services - Economy, Planning, and Place Directorate, West Sussex County Council | Location: Ground Floor Northleigh, County Hall, Chichester, PO19 1RH
Internal: 25717 | External: 0330 222 5717
E-mail: ian.gledhill@westsussex.gov.uk

From: Amol Pisal [REDACTED]
Sent: 26 May 2017 11:34
To: Ian Gledhill
Subject: Saltbox

Hello Ian

Good morning.

As you will see, we are trying to get to an agreement about the traffic flows that are missing within the WSCC's County Model along Steyning Way.

In the meantime, I am putting the TA together and I am on traffic generation chapter. I attach an email which was sent to you with the agreed TRICS outputs for various uses.

However, I just realised that the TRICS output for Public House in the attached email was in fact the output for hotel and I just renamed it as Public House. Apologies for this.

I have now attached the correct TRICS output for the hotel for your reference.

Also in my previous email, I suggested that we would use the ATC count already undertaken for Costa in Barnstaple Retail Park in Devon. Given the proposal is for a drive-thru café/restaurants, we will be instead using the TRICS instead. I attach the TRICS output for drive-thru's for your reference. As previously agreed, 60% of the drive-thru trips would be diverted/pass-by, 20% would be shared trips associated with the overall development and the remaining 20% new to the local road network .

We have been notified that there will be a standalone Production Unit (approx. 2800sqm). For this, we would be using Industrial Unit sites within TRICS. I attach the copy of the TRICS output for this.

APPENDIX 1.3
E-MAIL FROM WSCC TO
ADL 10th MAY 2017

I look forward to your response/suggestion to the above. Thank you.

Kind regards

Amol Pisal MCIHT

Senior Traffic Engineering Ltd

ADL Traffic Engineering

ADL House, Oaklands Business Park, Armstrong Way, Yate, Bristol BS37 5NA

This email and any attachments are confidential and intended solely for the persons addressed. If it has come to you in error please reply to advise us but you should not read it, copy it, show it to anyone else nor make any other use of its content. West Sussex County Council takes steps to ensure emails and attachments are virus-free but you should carry out your own checks before opening any attachment.

From: Ian Gledhill [REDACTED]
Sent: 24 May 2017 10:19
To: [REDACTED]
Subject: RE: Saltbox Farm Pre App

Amol, to confirm,

1. You accept our traffic distribution which is based up on the Census data - Agreed
2. 2031 Reference flows are to be used as 'base flows'. EBR is not a committed development
Agreed
3. I confirmed that the 2031 Base + Committed flows referred in our TA will be 2031 Reference flows. Noted

Kind regards

Ian Gledhill

Ian Gledhill BSc MIHE MCIHT| Principal Planner – County Highways - Planning Services
- Economy, Planning, and Place Directorate, West Sussex County Council | Location:
Ground Floor Northleigh, County Hall, Chichester, PO19 1RH
[REDACTED]

From: Amol Pisal [REDACTED]
Sent: 24 May 2017 10:00
To: Ian Gledhill
Subject: RE: Saltbox Farm Pre App

Hi Ian

Just to summarise our telephone conversation:

1. You accept our traffic distribution which is based up on the Census data
2. 2031 Reference flows are to be used as 'base flows'. EBR is not a committed development
3. I confirmed that the 2031 Base + Committed flows referred in our TA will be 2031 Reference flows.

Thank you.

Kind regards

Amol Pisal MCIHT
Senior Traffic Engineering Ltd
ADL Traffic Engineering
ADL House, Oaklands Business Park, Armstrong Way, Yate, Bristol BS37 5NA
[REDACTED]

From: Ian Gledhill [REDACTED]
Sent: 24 May 2017 09:30

APPENDIX 1.4
EMAIL CORRESPONDENCE
OF 24th MAY 2017

To: Amol Pisal <[REDACTED]>
Subject: RE: Saltbox Farm Pre App

Amol, thanks for confirming the means of distribution. The anticipation was that Census data would be used but this hadn't been confirmed. .

As for the traffic flows, just to reconfirm, the expectation was for the 2031 reference flows to be applied rather than use the 2031 with EBR; my view was that it was easier to add development traffic in rather than take out the EBR flows and then add back in the development now proposed.

I've only one further comment that being that you refer to committed flows. Depending on what this might refer to, committed development may already be included within the reference flows.

Kind regards

Ian Gledhill

Ian Gledhill BSc MIHE MCIHT| Principal Planner – County Highways - Planning Services
- Economy, Planning, and Place Directorate, West Sussex County Council | Location:
Ground Floor Northleigh, County Hall, Chichester, PO19 1RH
[REDACTED]

From: Ian Gledhill [REDACTED]

Sent: 26 May 2017 11:43

To: Amol Pisal [REDACTED]

Subject: RE: Saltbox

Hello Amol, I've been through the TRICS outputs. I'm not particularly concerned with the trip rates for the hotel and drive thru given that these uses generate there peaks away from the typical network peaks, and for the drive-thru that the significant majority of trips will already be on the network.

Only comment is that a freestanding site is included for the industrial unit. I doubt removing this will make any great difference but I'd recommend this is taken out.

Kind regards

Ian Gledhill

Ian Gledhill BSc MIHE MCIHT| Principal Planner – County Highways - Planning Services
- Economy, Planning, and Place Directorate, West Sussex County Council | Location:
Ground Floor Northleigh, County Hall, Chichester, PO19 1RH
Internal: 25717 | External: 0330 222 5717
E-mail: ian.gledhill@westsussex.gov.uk

From: Amol Pisal [REDACTED]

Sent: 26 May 2017 11:34

To: Ian Gledhill

Subject: Saltbox

Hello Ian

Good morning.

As you will see, we are trying to get to an agreement about the traffic flows that are missing within the WSCC's County Model along Steyning Way.

In the meantime, I am putting the TA together and I am on traffic generation chapter. I attach an email which was sent to you with the agreed TRICS outputs for various uses.

However, I just realised that the TRICS output for Public House in the attached email was in fact the output for hotel and I just renamed it as Public House. Apologies for this.

I have now attached the correct TRICS output for the hotel for your reference.

Also in my previous email, I suggested that we would use the ATC count already undertaken for Costa in Barnstaple Retail Park in Devon. Given the proposal is for a drive-thru café/restaurants, we will be instead using the TRICS instead. I attach the TRICS output for drive-thru's for your reference. As previously agreed, 60% of the drive-thru trips would be diverted/pass-by, 20% would be shared trips associated with the overall development and the remaining 20% new to the local road network

APPENDIX 1.5
EMAIL CORRESPONDENCE
OF 26th MAY 2017

We have been notified that there will be a standalone Production Unit (approx. 2800sqm). For this, we would be using Industrial Unit sites within TRICS. I attach the copy of the TRICS output for this.

I look forward to your response/suggestion to the above. Thank you.

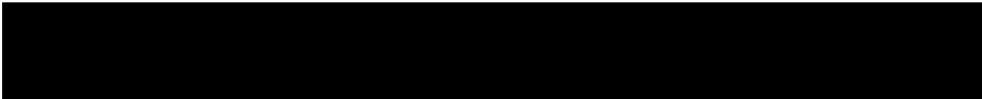
Kind regards

Amol Pisal MCIHT

Senior Traffic Engineering Ltd

ADL Traffic Engineering

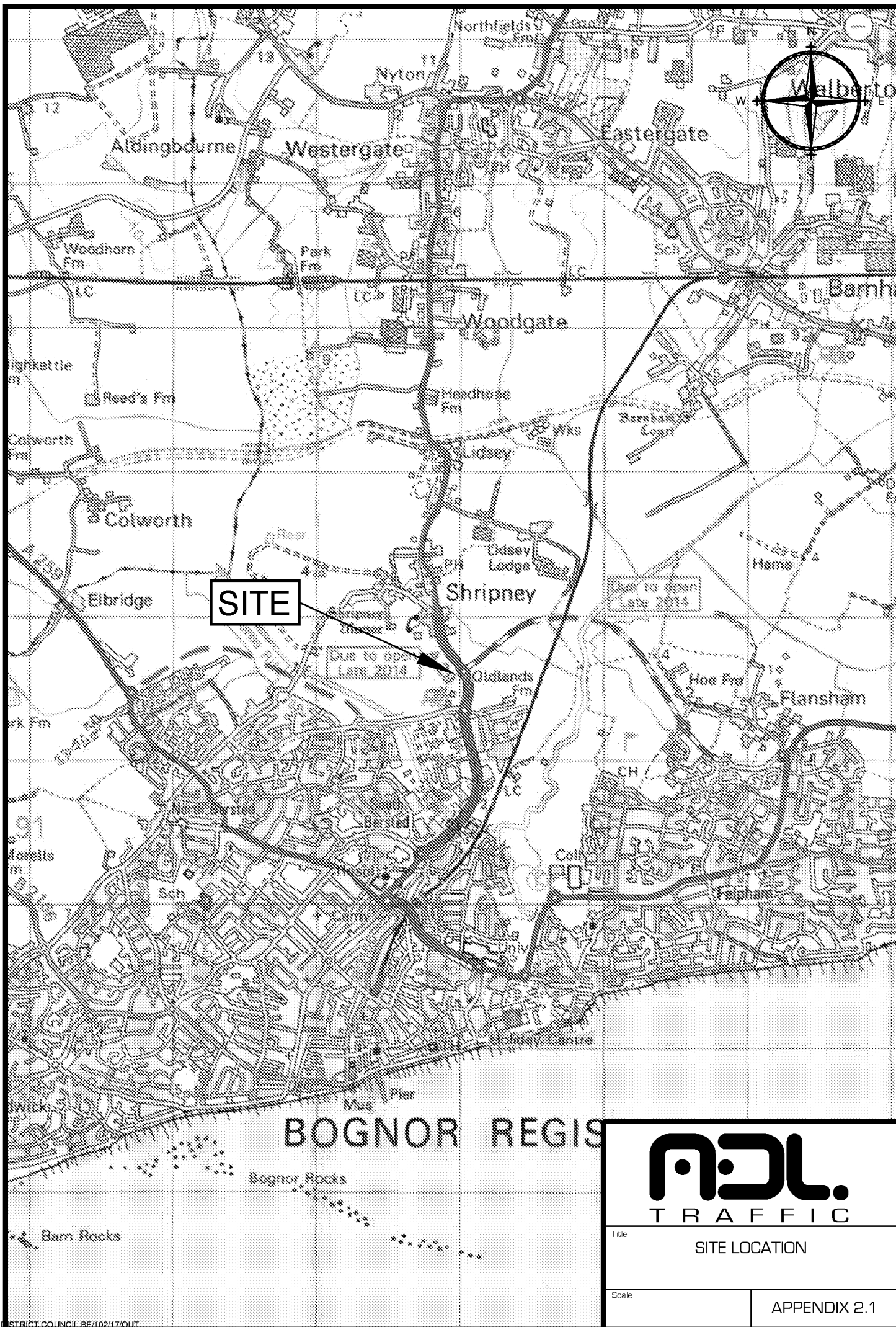
ADL House, Oaklands Business Park, Armstrong Way, Yate, Bristol BS37 5NA



.....

SITE LOCATION AND SURROUNDING AREA

2.1	Site Location
2.2	Site and Surrounding Area



BOGNOR REGIS

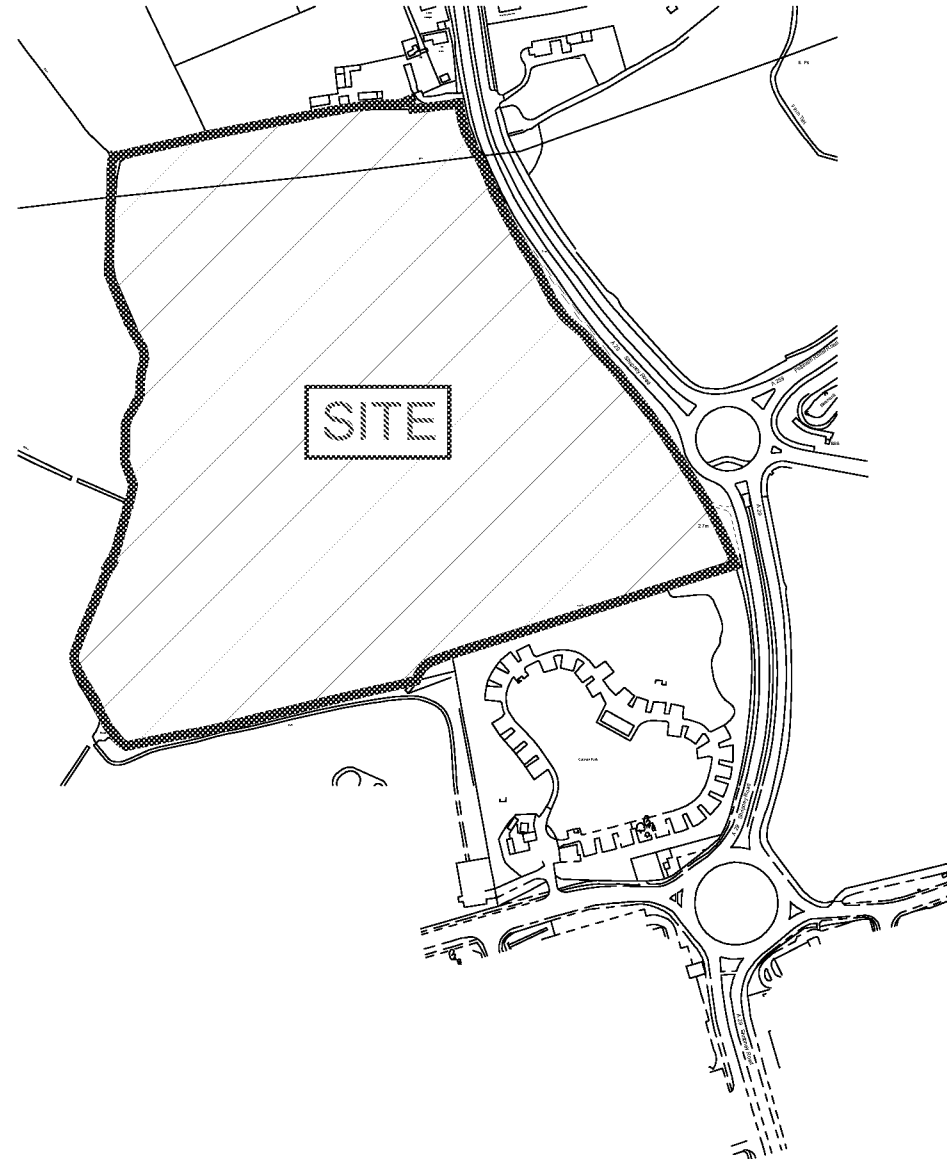
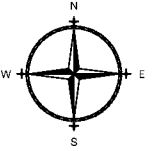
NDL
TRAFFIC

Title

SITE LOCATION

Scale

APPENDIX 2.1



ADL.
TRAFFIC

Title
SITE AND SURROUNDING AREA

Scale
1:5000@A4

APPENDIX 2.2

APPENDIX 3.0

ACCIDENT DATA

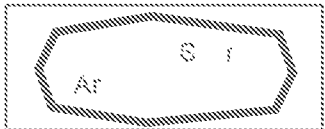
3.1	Accident Plot
3.2	Accident Report



APPENDIX 3.1
ACCIDENT PLOT



REPROD ED ROM 2013 ORDAN ES RVEY MASTER MAPPG NG
WT T E PERM SS ON O T E ONTROLLER O ER MA ESTY S
STAT ONERY O E ROWN OPYR G T NA T OR SED
REPROD T ON N R NGES ROWN OPYR G T AND MAY LEAD TO
PROSE T ON OR VL PRO EED NGS L EN EN WS
100023447



Accident Severity		Casualty Severity		Casualty Class	
Slight	14	Slight	23	Driver	11
Serious	1	Serious	1	P.Riders	2
Fatal	0	Fatal	0	Pass.	10
				Ped.	1

AREA		B r		DRAWN		DN	
RO TEN		A29		E ED			
LEN		17075		DATE		16 5 17	
1		175		R dr		r r	
R		D				DN	
						N	



West
Sussex
County
Council

P A S r R 17075
A29 B r S r
5 r 28 17

DRG N	
S ALE N S d	
M D Dr r W S r d Tr r	
W S r PO19 1R T 01243 642105	

West Sussex Injury Accident Engineers Report
PIA Search Ref 17075 - A29 Bognor to Shripney - 5yrs to 28 Feb 17

Accident 1 of 15 1201450 Severity: Slight Sun 18/03/2012 at 12:45 on the A29 Police Officer Attend: No

A29 Shripney .Road Of U Rowan Way. at Junction as Shown Above.

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 30mph

Easting / Northing 494055 / 101365

Veh 1	Car	Stopping	from N to S	No Skid	Impact: Front	Male Aged Between 75-84
Veh 2	Car	Stopping	from N to S	No Skid	Impact: Back	Female Aged Between 45-54
Cas 1	Passenger	of veh 2	Slight	Female	Aged between 17-24	

V1 and V2 both Heading South on the A29. V2 Slowed for Give Way Lines at Roundabout, and V1 Failed to Slow in Time, and Impacted with the Rear of V2.

Accident 2 of 15 1203648 Severity: Serious Mon 16/07/2012 at 19:20 on the A29 Police Officer Attend: Yes

A29 Shripney Road Bognor Regis 100M South Of U Rowan Way Outside on A29 Near John Wiley & Sons Ltd

Light: Light - Weather: Rain - Road Surface: Wet - Speed Limit: 40mph

Easting / Northing 494050 / 101235

Veh 1	Car	Starting	from N to S	No Skid	Impact: Front	u/k Aged Between N/A
Cas 1	Pedestrian	of veh 1	Serious	Female	Aged between 25-34	

Female Pedestrian Walking Along Footpath on Southbound Carriageway A29 Shripney Road, Approached by Unknown Male in Vehicle, and Asked If she Wanted a Lift, Female Refused and Walked Away from Vehicle. Female Victim Noticed Vehicle Approaching her Again, and Decided to Cross to Opposite Carriageway. Female Stepped into the Road, at which Point the Vehicle Pulled Away, Colliding with her and Knocking her to Ground, Causing Several Injuries.

Accident 3 of 15 1303422 Severity: Slight Fri 05/07/2013 at 08:41 on the A29 Police Officer Attend: No

A29 BOGNOR REGIS AT JUNCTION OF U ROWAN WAY OUTSIDE AT R/BT

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 494030 / 101293

Veh 1	Car	Going ahead other	from W to E	No Skid	Impact: Offside	Female Aged Between 17-24
Veh 2	Pedal Cycle	Turning right	from E to N	No Skid	Impact: Front	Female Aged Between 55-64
Cas 1	Driver or Rider	of veh 2	Slight	Female	Aged between 55-64	

APPARANTLY VEH 1 PULLED ONTO THE ROUNDABOUT WITHOUT LOOKING AND COLLIDED WITH A CYCLIST FROM THE RIGHT.

Accident 4 of 15 1401497 Severity: Slight Tue 18/03/2014 at 09:29 on the A29 Police Officer Attend: Yes

A29 SHRIPNEY ROAD BOGNOR REGIS AT JUNCTION OF U STEYNING WAY OUTSIDE KFC

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 494055 / 101362

APPENDIX 3.2
ACCIDENT REPORT

Veh 1	Taxi	Starting			from N to S	No Skid	Impact: Front	Male Aged Between 45-54
Veh 2	M/cycle 50 - 125cc	Starting			from N to S	No Skid	Impact: Back	Female Aged Between 45-54
Cas 1	Driver or Rider	of veh 2	Slight	Female	Aged between	45-54		

V1 WAITING BEHIND V2, V2 DOES NOT MOVE OFF WHEN V1 WAS EXPECTING AND V1 MOVES FORWARD AND BUMPS INTO V2 CAUSING HER TO FALL OFF OF MOTOR CYCLE.

Accident 5 of 15 1401784 Severity: Slight Wed 02/04/2014 at 16:55 on the A29 Police Officer Attend: Yes

A29 SHRIPNEY ROAD BOGNOR REGIS 320M SOUTH OF U SHRIPNEY LANE

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 493936 / 101723

Veh 1	Car	Going ahead LH bend			from N to SE	No Skid	Impact: Front	Male Aged Between 17-24
Veh 2	Car	Going ahead other			from S to N	No Skid	Impact: Offside	Male Aged Between 17-24
Cas 1	Driver or Rider	of veh 2	Slight	Male	Aged between	17-24		

V1 TRAVELLING SOUTH LOST CONTROL OF VEHICLE AND CROSSED OVER CENTRAL RESERVATION, STRIKING THE SIDE OF V2 CAUSING IT TO ROLL OVER ONTO ITS ROOF.

Accident 6 of 15 1407594 Severity: Slight Wed 24/12/2014 at 07:12 on the A29 Police Officer Attend: Yes

A29 BOGNOR AT JUNCTION OF U ROWAN WAY OUTSIDE ON ROUNDABOUT

Light: Dark/lights lit - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 494028 / 101297

Veh 1	Car	Going ahead other			from S to N	No Skid	Impact: Offside	Male Aged Between 45-54
Veh 2	Pedal Cycle	Going ahead other			from N to W	No Skid	Impact: Front	Male Aged Between 35-44
Cas 1	Driver or Rider	of veh 2	Slight	Male	Aged between	35-44		

PEDAL CYCLE NEGOTIATING ROUND ABOUT FROM NORTH TO EXIT WEST, VEHICLE ONE CAR TRAVELLING NORTH ENTERED ROUNDABOUT AND COLLIDED WITH PEDAL.

Accident 7 of 15 1506180 Severity: Slight Wed 14/10/2015 at 16:20 on the A29 Police Officer Attend: No

A29 SHRIPNEY ROAD SOUTH BERSTEAD AT JUNCTION OF U ROWAN WAY

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 494055 / 101378

Veh 1	Bus or Coach	Going ahead other			from N to S	No Skid	Impact: None	Male Aged Between 35-44
Veh 2	Car	Going ahead other			from N to S	No Skid	Impact: None	Male Aged Between 17-24
Cas 1	Driver or Rider	of veh 2	Slight	Male	Aged between	17-24		
Cas 2	Passenger	of veh 2	Slight	Female	Aged between	17-24		
Cas 3	Passenger	of veh 2	Slight	Male	Aged between	17-24		

DRIVER VEHICLE 2 REPORTING DANGEROUS DRIVER IN VEHICLE 1 ALMOST COLLIDED WITH HIS VEHICLE CAUSING HIM TO BRAKE HARD. INFORMANT FELT DRIVER VEHICLE 1 WAS SPEEDING IN ADDITION TO COMING STRAIGHT ACROSS BOTH LANES AT THE ROUNDABOUT. THIS ACTION SUBSEQUENTLY CAUSED INFORMANT AND 2 OF HIS PASSENGERS TO SUFFER STRAIN AND SOFT TISSUE DAMAGE TO THEIR NECKS FOR WHICH MEDICAL ADVICE WAS SOUGHT.

Accident 8 of 15 1507463 Severity: Slight Tue 15/12/2015 at 21:04 on the A29 Police Officer Attend: Yes

A29 SHRIPNEY ROAD BOGNOR REGIS AT JUNCTION OF U ROWAN WAY OUTSIDE AT RA

Light: Dark/lights lit - Weather: Rain - Road Surface: Wet - Speed Limit: 40mph

Easting / Northing 494028 / 101290

Veh 1	Car	Going ahead other	from S to N	No Skid	Impact: Front	Male Aged Between 25-34
Veh 2	M/cycle <= 50cc	Going ahead other	from E to W	No Skid	Impact: Nearside	Male Aged Between 10-16
Cas 1	Driver or Rider	of veh 2	Slight Male	Aged between	10-16	

V1 WAS TRAVELLING NORTHBOUND ALONG A29 ENTERING RA, WHILST V2 WAS TRAVELLING WESTBOUND MID RA. V1 ENTERED RA AND COLLIDED WITH NEARSIDE OF V2

Accident 9 of 15 1507478 Severity: Slight Tue 15/12/2015 at 16:15 on the A29 Police Officer Attend: No

A29 SHRIPNEY ROAD BOGNOR REGIS AT JUNCTION OF A29

Light: Light - Weather: Fine - Road Surface: Wet - Speed Limit: 40mph

Easting / Northing 494057 / 101370

Veh 1	Car	Turning right	from N to W	No Skid	Impact: Front	Female Aged Between 17-24
Veh 2	Car	Going ahead other	from N to S	No Skid	Impact: Back	u/k Aged Between N/A
Cas 1	Driver or Rider	of veh 1	Slight Female	Aged between	17-24	
Cas 2	Passenger	of veh 1	Slight Female	Aged between	17-24	

V2 MADE AN EMERGENCY STOP ON THE ROUNDABOUT FOR UNKNOWN REASON. V1 HAS COLLIDED WITH REAR OF V2. V2 HAS DRIVEN AWAY FROM THE SCENE WITHOUT EXCHANGING DETAILS.

Accident 10 of 15 1602305 Severity: Slight Thu 21/04/2016 at 08:00 on the A259 Police Officer Attend: Yes

A259 BOGNOR REGIS AT JUNCTION OF A29 OUTSIDE SHRIPNEY ROUNDABOUT

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 494009 / 101346

Veh 1	Car	Going ahead other	from W to E	No Skid	Impact: Front	Male Aged Between 65-74
Veh 2	Car	Waiting to go ahead but held up	from W to E	No Skid	Impact: Back	Male Aged Between 17-24
Cas 1	Driver or Rider	of veh 2	Slight Male	Aged between	17-24	

V2 WAITING AT ROUNDABOUT JUNCTION, V1 HAS PULLED UP BEHIND AND CRASHED INTO THE BACK OF V2.

Accident 11 of 15 1602440 Severity: Slight Tue 26/04/2016 at 12:00 on the A29 Police Officer Attend: No

A29 SHRIPNEY ROAD BOGNOR REGIS AT JUNCTION OF U ROWAN WAY OUTSIDE ON ROUNDABOUT

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 494020 / 101347

Veh 1	Car	Starting	from S to N	No Skid	Impact: Front	Male Aged Between 55-64
Veh 2	Car	Waiting to go ahead but held up	from S to N	No Skid	Impact: Back	Male Aged Between 35-44
Cas 1	Driver or Rider	of veh 2	Slight Male	Aged between	35-44	
Cas 2	Passenger	of veh 2	Slight Male	Aged between	25-34	

V1 FAILED TO JUDGE V2 SPEED AT ROUNDABOUT JUNCTION AND COLLIDED WITH REAR OF V1 CAUSING MINOR DAMAGE AND SLIGHT INJURY.

Accident 12 of 15 1602797 Severity: Slight Fri 13/05/2016 at 07:44 on the U Police Officer Attend: Yes

U ROWAN WAY BOGNOR REGIS AT JUNCTION OF A29 OUTSIDE ON APPROACH TO R/A

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 493990 / 101325

Veh 1	Car	O/T moving veh on its O/S	from W to E	No Skid	Impact: Offside	Male Aged Between 35-44
Veh 2	M/cycle > 500cc	Stopping	from W to E	No Skid	Impact: Offside	Male Aged Between 25-34
Cas 1	Driver or Rider	of veh 2	Slight Male	Aged between	25-34	

V1 MOTOR CAR TRAVELLING EASTBOUND ON ROWAN WAY MOVED TO OFFSIDE ON APPROACH ON R/A TO PASS WAITING VEHICLES. V2 MOTORCYCLE ALSO TRAVELLING ROWAN WAY FILTERING PASS WAITING VEHICLES ON OFFSIDE APPROACH ALSO, AS V1 MOVED OUT TO BEGIN PASSING WAITING TRAFFIC COLLIDED WITH V2 CAUSING MINOR INJURY HIP OF RIDER.

Accident 13 of 15 1604445 Severity: Slight Sat 23/07/2016 at 18:02 on the A29 Police Officer Attend: No

A29 BOGNOR REGIS AT JUNCTION OF U ROWAN WAY

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 493993 / 101337

Veh 1	Car	Waiting to go ahead but held up	from W to E	No Skid	Impact: Back	Male Aged Between 25-34
Veh 2	Car	Waiting to go ahead but held up	from W to E	No Skid	Impact: Front	Female Aged Between 25-34
Cas 1	Driver or Rider	of veh 1	Slight Male	Aged between	25-34	
Cas 2	Driver or Rider	of veh 2	Slight Female	Aged between	25-34	
Cas 3	Passenger	of veh 2	Slight Male	Aged between	25-34	
Cas 4	Passenger	of veh 2	Slight Male	Aged between	0-9	
Cas 5	Passenger	of veh 2	Slight Male	Aged between	10-16	
Cas 6	Passenger	of veh 2	Slight Male	Aged between	10-16	

STATIONARY V2, AT ROUNDABOUT, STRUCK FROM BEHIND BY V1 ENTERING SAME ROUNDABOUT

Accident 14 of 15 1604523 Severity: Slight Wed 27/07/2016 at 12:45 on the A29 Police Officer Attend: No

A29 SHRIPNEY ROAD BOGNOR REGIS AT JUNCTION OF U ROWAN WAY OUTSIDE MCDONALDS ROUNDABOUT

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 494054 / 101375

Veh 1	Car	Going ahead other	from N to S	No Skid	Impact: Front	Male Aged Between 65-74
Veh 2	Car	Going ahead other	from N to S	No Skid	Impact: Back	Male Aged Between 45-54
Cas 1	Passenger	of veh 2	Slight Female	Aged between	35-44	

V2 HAS APPROACHED THE ROUNDABOUT AND COME TO A STOP. V1 HAS THEN STARTED TO MOVE ONTO THE ROUNDABOUT AND STOPPED AGAIN. V1 WHICH WAS BEHIND V2 HAS DRIVEN INTO THE REAR OF V2 AT SLOW SPEED. I SURMISE THAT THE DRIVER OF V1 EXPECTED V2 TO CONTINUE ONTO THEROUNDABOUT AND DID NOT EXPECT IT TO STOP AGAIN.

Accident 15 of 15 1604943 Severity: Slight Tue 16/08/2016 at 13:34 on the A29 Police Officer Attend: Yes

A29 SHRIPNEY ROAD BOGNOR REGIS 80M SOUTH OF U ROWAN WAY

Light: Light - Weather: Fine - Road Surface: Dry - Speed Limit: 40mph

Easting / Northing 494036 / 101218

Veh 1	Car	Starting			from SE to N	No Skid	Impact: Front	Female Aged Between 17-24
Veh 2	Car	Going ahead other			from SE to N	No Skid	Impact: Nearside	Female Aged Between 65-74
Cas 1	Driver or Rider	of veh 2	Slight	Female	Aged between	65-74		

VEHICLE 2 WAS TRAVELLING IN LANE 1 NORTHBOUND ON THE A29 SHRIPNEY ROAD TOWARDS A ROUNDABOUT. VEHICLE 1 WAS STATIONARY JUST OFF THE ROAD OUTSIDE A CAR GARAGE AND IN THE PROCESS OF REJOINING THE TRAFFIC THE DRIVERS FOOT SLIPPED OFF THE CLUTCH AND THE VEHICLE WENT INTO THE REAR NEARSIDE OF VEHICLE 2 CAUSING MINOR INJURIES TO THE DRIVER.

APPENDIX 4.0

ACCESSIBILITY

- 4.1 Cycle Route Map
- 4.2 Bus Stop Locations
- 4.3 Bus Routes





	
Title BUS STOP LOCATIONS	
Scale	APPENDIX 4.2

Route map for Compass Travel service 66 (outbound)



APPENDIX 4.3
BUS ROUTES



© OpenStreetMap

A2017 TRAFFIC FLOWS: A29/ROWAN WAY ROUNDABOUT

MANUAL CLASSIFIED COUNTS

JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY



DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 1 FROM A29 SHRIPNEY ROAD (N) TO STEYNING WAY								MOVEMENT 2 FROM A29 SHRIPNEY ROAD (N) TO A29 SHRIPNEY ROAD (S)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	15	7	0	1	0	0	0	23	36	6	4	1	0	0	0	47
07:15	22	9	2	0	0	0	0	33	37	12	3	0	0	0	0	52
07:30	53	10	1	3	0	1	0	68	42	12	3	0	0	0	0	57
07:45	42	10	0	1	0	1	0	54	66	17	1	2	0	0	0	86
H/TOT	132	36	3	5	0	2	0	178	181	47	11	3	0	0	0	242
08:00	24	9	0	0	0	0	0	33	85	12	0	1	0	2	0	100
08:15	36	11	2	0	0	0	0	49	82	13	2	0	0	0	0	97
08:30	18	7	0	3	0	0	0	28	64	11	0	1	0	3	0	79
08:45	35	9	6	0	0	0	0	50	88	13	2	2	0	4	0	109
H/TOT	113	36	8	3	0	0	0	160	319	49	4	4	0	9	0	385
09:00	6	4	0	4	0	2	0	16	58	10	0	0	0	1	0	69
09:15	13	7	1	0	0	0	0	21	76	7	5	3	0	1	0	92
09:30	18	9	1	1	0	0	0	29	76	7	1	0	0	0	0	84
09:45	22	14	3	0	0	0	0	39	72	12	4	2	0	0	0	90
H/TOT	59	34	5	5	0	2	0	105	282	36	10	5	0	2	0	335
P/TOT	304	106	16	13	0	4	0	443	762	132	25	12	0	11	0	962

APPENDIX 5.0
A2017 TRAFFIC FLOWS:
A29/ROWAN WAY ROUNDABOUT

MANUAL CLASSIFIED COUNTS

JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY



DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 1 FROM A29 SHRIPNEY ROAD (N) TO STEYNING WAY								MOVEMENT 2 FROM A29 SHRIPNEY ROAD (N) TO A29 SHRIPNEY ROAD (S)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	19	11	1	2	0	0	0	33	73	14	1	3	0	0	0	91
15:15	6	5	0	1	0	0	0	12	78	17	1	2	0	0	0	98
15:30	27	15	1	0	0	1	0	44	93	19	1	0	1	3	0	117
15:45	23	14	2	0	0	0	0	39	95	19	5	0	0	3	0	122
H/TOT	75	45	4	3	0	1	0	128	339	69	8	5	1	6	0	428
16:00	33	8	1	2	0	0	0	44	87	17	4	0	0	0	0	108
16:15	5	6	1	0	0	3	0	15	97	33	1	0	0	1	0	132
16:30	6	2	0	1	0	0	0	9	54	10	4	0	0	1	0	69
16:45	22	11	2	0	0	0	0	35	76	21	3	0	0	0	0	100
H/TOT	66	27	4	3	0	3	0	103	314	81	12	0	0	2	0	409
17:00	19	5	3	2	0	0	0	29	99	23	5	0	0	0	0	127
17:15	27	7	1	0	0	0	0	35	112	25	2	0	0	3	0	142
17:30	19	1	0	0	0	0	0	20	52	10	0	0	0	2	0	64
17:45	26	14	2	0	0	0	0	42	115	23	5	0	0	0	0	143
H/TOT	91	27	6	2	0	0	0	126	378	81	12	0	0	5	0	476
P/TOT	232	99	14	8	0	4	0	357	1031	231	32	5	1	13	0	1313

MANUAL CLASSIFIED COUNTS

JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY



DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 3 FROM A29 SHRIPNEY ROAD (N) TO ROWAN WAY								MOVEMENT 4 FROM A29 SHRIPNEY ROAD (N) TO A29 SHRIPNEY ROAD (N)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	108	27	10	5	2	0	0	152	0	0	0	0	0	0	0	0
07:15	127	27	4	5	0	2	0	165	0	0	0	0	0	0	0	0
07:30	105	23	4	1	0	3	0	136	0	0	0	0	0	0	0	0
07:45	126	20	3	2	1	1	0	153	0	0	0	0	0	0	0	0
H/TOT	466	97	21	13	3	6	0	606	0	0	0	0	0	0	0	0
08:00	129	18	3	3	0	1	0	154	0	0	0	0	0	0	0	0
08:15	143	20	5	4	0	0	0	172	0	0	0	0	0	0	0	0
08:30	103	16	6	4	1	1	0	131	0	0	0	0	0	0	0	0
08:45	131	20	3	1	0	0	0	155	0	0	0	0	0	0	0	0
H/TOT	506	74	17	12	1	2	0	612	0	0	0	0	0	0	0	0
09:00	93	17	5	7	0	0	0	122	0	0	0	0	0	0	0	0
09:15	100	15	6	4	0	1	0	126	0	0	0	0	0	0	0	0
09:30	68	15	6	1	0	0	0	90	0	0	0	0	0	0	0	0
09:45	89	14	12	3	0	3	0	121	0	0	0	0	0	0	0	0
H/TOT	350	61	29	15	0	4	0	459	0	0	0	0	0	0	0	0
P/TOT	1322	232	67	40	4	12	0	1677	0	0	0	0	0	0	0	0

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 3 FROM A29 SHRIPNEY ROAD (N) TO ROWAN WAY								MOVEMENT 4 FROM A29 SHRIPNEY ROAD (N) TO A29 SHRIPNEY ROAD (N)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	92	16	6	6	0	2	0	122	0	0	0	0	0	0	0	0
15:15	108	28	7	2	0	0	0	145	0	0	0	0	0	0	0	0
15:30	115	26	8	3	1	1	0	154	0	0	0	0	0	0	0	0
15:45	123	27	9	4	2	0	0	165	0	0	0	0	0	0	0	0
H/TOT	438	97	30	15	3	3	0	586	0	0	0	0	0	0	0	0
16:00	124	38	5	1	1	0	0	169	0	0	0	0	0	0	0	0
16:15	122	33	5	4	0	0	0	164	0	0	0	0	0	0	0	0
16:30	133	22	4	4	0	1	0	164	0	0	0	0	0	0	0	0
16:45	124	32	5	1	0	0	0	162	0	0	0	0	0	0	0	0
H/TOT	503	125	19	10	1	1	0	659	0	0	0	0	0	0	0	0
17:00	145	34	5	2	0	2	0	188	0	0	0	0	0	0	0	0
17:15	175	32	3	2	0	2	0	214	0	0	0	0	0	0	0	0
17:30	103	21	3	0	0	4	0	131	0	0	0	0	0	0	0	0
17:45	136	15	2	0	0	0	0	153	0	0	0	0	0	0	0	0
H/TOT	559	102	13	4	0	8	0	686	0	0	0	0	0	0	0	0
P/TOT	1590	324	62	29	4	12	0	1931	0	0	0	0	0	0	0	0

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 5 FROM ROWAN WAY TO A29 SHRIPNEY ROAD (N)								MOVEMENT 6 FROM ROWAN WAY TO STEYNING WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT
07:00	102	32	1	3	2	2	0	142	8	5	0	2	0	0	0	15
07:15	115	36	5	4	0	0	0	160	13	6	0	0	0	0	0	19
07:30	129	22	6	5	1	6	0	169	17	4	1	1	0	0	0	23
07:45	122	30	4	2	0	0	0	158	24	2	1	0	0	0	0	27
H/TOT	468	120	16	14	3	8	0	629	62	17	2	3	0	0	0	84
08:00	137	21	2	2	1	3	0	166	10	3	1	1	0	0	0	15
08:15	112	12	3	7	0	1	0	135	19	7	2	0	0	0	0	28
08:30	96	17	6	3	2	1	0	125	11	3	4	0	0	0	0	18
08:45	77	23	5	2	0	0	0	107	19	2	2	0	0	0	0	23
H/TOT	422	73	16	14	3	5	0	533	59	15	9	1	0	0	0	84
09:00	89	20	7	2	1	0	0	119	7	3	1	0	0	1	0	12
09:15	82	22	8	4	0	1	0	117	10	7	1	0	0	0	0	18
09:30	64	15	7	2	0	1	0	89	13	2	1	3	0	0	0	19
09:45	84	15	5	4	0	0	0	108	15	3	2	0	0	0	0	20
H/TOT	319	72	27	12	1	2	0	433	45	15	5	3	0	1	0	69
P/TOT	1209	265	59	40	7	15	0	1595	166	47	16	7	0	1	0	237

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 5 FROM ROWAN WAY TO A29 SHRIPNEY ROAD (H)								MOVEMENT 6 FROM ROWAN WAY TO STEYNING WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	94	18	6	3	0	1	0	122	16	3	2	1	0	0	0	22
15:15	117	14	3	1	0	0	0	135	6	2	1	1	0	0	0	10
15:30	120	18	2	2	0	0	0	142	19	3	0	0	0	0	0	22
15:45	100	18	7	2	0	3	0	130	16	4	0	0	0	0	0	20
H/TOT	431	68	18	8	0	4	0	529	57	12	3	2	0	0	0	74
16:00	96	27	4	7	1	1	0	136	17	1	0	0	0	0	0	18
16:15	143	20	8	1	0	2	0	174	4	1	1	0	0	0	0	6
16:30	120	20	3	0	0	5	0	148	6	2	0	0	0	0	0	8
16:45	129	29	4	1	0	4	0	167	18	4	1	0	0	0	0	23
H/TOT	488	96	19	9	1	12	0	625	45	8	2	0	0	0	0	55
17:00	122	25	6	1	0	0	0	154	11	1	0	0	0	1	0	13
17:15	131	14	5	1	2	2	0	155	17	1	0	0	0	0	0	18
17:30	142	17	5	0	0	2	0	166	19	0	0	0	0	0	0	19
17:45	133	16	4	2	0	3	0	158	19	1	0	0	0	0	0	20
H/TOT	528	72	20	4	2	7	0	633	66	3	0	0	0	1	0	70
P/TOT	1447	236	57	21	3	23	0	1787	168	23	5	2	0	1	0	199

MANUAL CLASSIFIED COUNTS

JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY



DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 1 FROM ROWAN WAY TO A29 SHRIPNEY ROAD (S)								MOVEMENT 2 FROM ROWAN WAY TO ROWAN WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	14	4	1	1	0	0	0	20	0	0	0	0	0	0	0	0
07:15	25	8	0	0	0	0	0	33	0	0	0	0	0	0	0	0
07:30	15	8	2	0	0	0	0	25	0	0	0	0	0	0	0	0
07:45	41	4	4	0	0	0	0	49	0	0	0	0	0	0	0	0
H/TOT	95	24	7	1	0	0	0	127	0	0	0	0	0	0	0	0
08:00	40	6	2	3	0	0	0	51	0	0	0	0	0	0	0	0
08:15	43	9	3	2	0	0	0	57	0	0	0	0	0	0	0	0
08:30	45	5	3	0	0	0	0	53	0	0	0	0	0	0	0	0
08:45	42	5	1	0	0	0	0	48	0	0	0	0	0	0	0	0
H/TOT	170	25	9	5	0	0	0	209	0	0	0	0	0	0	0	0
09:00	62	8	3	0	0	0	0	73	0	0	0	0	0	0	0	0
09:15	64	5	1	0	0	0	0	70	0	0	0	0	0	0	0	0
09:30	54	3	1	0	0	0	0	58	0	0	0	0	0	0	0	0
09:45	46	2	3	0	0	0	0	51	0	0	0	0	0	0	0	0
H/TOT	226	18	8	0	0	0	0	252	0	0	0	0	0	0	0	0
P/TOT	491	67	24	6	0	0	0	588	0	0	0	0	0	0	0	0

MANUAL CLASSIFIED COUNTS

JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY



DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 1 FROM ROWAN WAY TO A29 SHRIPNEY ROAD (S)								MOVEMENT 2 FROM ROWAN WAY TO ROWAN WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	64	3	1	0	0	0	0	68	0	0	0	0	0	0	0	0
15:15	70	12	3	2	0	0	0	87	0	0	0	0	0	0	0	0
15:30	66	5	1	0	0	1	0	73	0	0	0	0	0	0	0	0
15:45	62	6	1	0	0	0	0	69	0	0	0	0	0	0	0	0
H/TOT	262	26	6	2	0	1	0	297	0	0	0	0	0	0	0	0
16:00	51	2	1	0	0	0	0	54	0	0	0	0	0	0	0	0
16:15	69	8	1	0	0	0	0	78	0	0	0	0	0	0	0	0
16:30	63	10	0	0	0	0	0	73	0	0	0	0	0	0	0	0
16:45	50	8	0	2	0	0	0	60	0	0	0	0	0	0	0	0
H/TOT	233	28	2	2	0	0	0	265	0	0	0	0	0	0	0	0
17:00	51	6	0	0	0	1	0	58	0	0	0	0	0	0	0	0
17:15	60	6	0	0	0	0	0	66	0	0	0	0	0	0	0	0
17:30	47	10	0	0	0	0	0	57	0	0	0	0	0	0	0	0
17:45	43	1	0	0	0	1	0	45	0	0	0	0	0	0	0	0
H/TOT	201	23	0	0	0	2	0	226	0	0	0	0	0	0	0	0
P/TOT	696	77	8	4	0	3	0	788	0	0	0	0	0	0	0	0

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 9 FROM A29 SHRIPNEY ROAD (S) TO ROWAN WAY								MOVEMENT 10 FROM A29 SHRIPNEY ROAD (S) TO A29 SHRIPNEY ROAD (N)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	54	13	2	0	0	0	0	69	76	23	4	1	0	0	0	104
07:15	52	11	2	0	0	0	0	65	83	25	3	0	0	2	0	113
07:30	60	11	2	1	0	0	0	74	48	27	3	0	0	1	0	79
07:45	69	6	1	1	0	0	0	77	100	21	5	1	0	3	0	130
H/TOT	235	41	7	2	0	0	0	285	307	96	15	2	0	6	0	426
08:00	65	13	1	0	0	0	0	79	102	26	10	0	0	1	0	139
08:15	63	7	3	1	0	0	0	74	101	31	4	0	0	0	0	136
08:30	59	9	2	0	0	1	0	71	76	12	4	0	0	0	0	92
08:45	63	9	3	2	0	0	0	77	50	11	0	0	0	0	0	61
H/TOT	250	38	9	3	0	1	0	301	329	80	18	0	0	1	0	428
09:00	78	8	3	2	0	1	0	92	63	13	1	0	0	0	0	77
09:15	71	4	1	0	0	2	0	78	67	20	4	0	0	1	0	92
09:30	61	11	2	0	0	0	0	74	68	13	3	2	0	0	0	86
09:45	70	11	1	0	0	1	0	83	58	8	2	1	0	2	0	71
H/TOT	280	34	7	2	0	4	0	327	256	54	10	3	0	3	0	326
P/TOT	765	113	23	7	0	5	0	913	892	230	43	5	0	10	0	1180

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 9 FROM A29 SHRIPNEY ROAD (S) TO ROWAN WAY								MOVEMENT 10 FROM A29 SHRIPNEY ROAD (S) TO A29 SHRIPNEY ROAD (N)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	89	13	1	0	0	1	0	104	99	12	3	0	0	0	0	114
15:15	86	5	1	4	0	0	0	96	111	13	3	1	1	2	0	131
15:30	110	12	1	1	0	2	0	126	96	12	3	0	0	2	0	113
15:45	95	8	0	1	0	0	0	104	102	16	3	0	0	3	0	124
H/TOT	380	38	3	6	0	3	0	430	408	53	12	1	1	7	0	482
16:00	108	3	2	1	0	0	0	114	99	13	4	0	0	0	0	116
16:15	92	16	0	0	0	0	0	108	112	17	2	0	0	2	0	133
16:30	84	10	1	1	0	0	0	96	132	19	1	0	0	0	0	152
16:45	89	9	1	0	0	2	0	101	57	15	0	0	0	1	0	73
H/TOT	373	38	4	2	0	2	0	419	400	64	7	0	0	3	0	474
17:00	80	9	1	0	0	0	0	90	103	6	0	0	0	1	0	110
17:15	87	17	1	0	0	2	0	107	105	24	1	0	0	3	0	133
17:30	91	14	1	2	0	0	0	108	67	11	2	0	0	1	0	81
17:45	85	9	0	0	0	0	0	94	48	4	0	0	0	0	0	52
H/TOT	343	49	3	2	0	2	0	399	323	45	3	0	0	5	0	376
P/TOT	1096	125	10	10	0	7	0	1248	1131	162	22	1	1	15	0	1332

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 11 FROM A29 SHRIPNEY ROAD (S) TO STEYNING WAY								MOVEMENT 12 FROM A29 SHRIPNEY ROAD (S) TO A29 SHRIPNEY ROAD (S)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	7	3	0	0	0	0	0	10	9	2	1	1	0	0	0	13
07:15	10	6	2	0	0	1	0	19	11	6	1	0	0	0	0	18
07:30	60	7	2	1	0	1	0	71	27	6	1	0	0	1	0	35
07:45	17	4	1	0	0	1	0	23	16	5	2	1	0	0	0	24
H/TOT	94	20	5	1	0	3	0	123	63	19	5	2	0	1	0	90
08:00	10	6	0	0	0	0	0	16	24	5	1	0	0	1	0	31
08:15	19	7	3	0	0	0	0	29	22	6	2	0	0	0	0	30
08:30	9	2	1	2	0	0	0	14	26	3	0	0	0	0	0	29
08:45	28	8	5	0	0	0	0	41	34	6	1	0	0	0	0	41
H/TOT	66	23	9	2	0	0	0	100	106	20	4	0	0	1	0	131
09:00	8	2	0	0	0	0	0	10	50	4	0	0	0	0	0	54
09:15	7	4	1	0	0	0	0	12	25	3	2	0	0	0	0	30
09:30	11	3	1	0	0	0	0	15	35	1	1	0	0	0	0	37
09:45	18	8	4	0	0	0	0	30	31	5	2	0	0	0	0	38
H/TOT	44	17	6	0	0	0	0	67	141	13	5	0	0	0	0	159
P/TOT	204	60	20	3	0	3	0	290	310	52	14	2	0	2	0	380

MANUAL CLASSIFIED COUNTS

JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY



DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 11 FROM A29 SHRIPNEY ROAD (S) TO STEYNING WAY								MOVEMENT 12 FROM A29 SHRIPNEY ROAD (S) TO A29 SHRIPNEY ROAD (S)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	14	8	1	0	0	0	0	23	32	7	1	0	0	0	0	40
15:15	4	2	0	0	1	0	0	7	32	7	0	1	0	0	0	40
15:30	20	8	1	0	0	1	0	30	43	6	2	0	0	1	0	52
15:45	15	4	1	0	0	0	0	20	35	4	1	0	0	0	0	40
H/TOT	53	22	3	0	1	1	0	80	142	24	4	1	0	1	0	172
16:00	24	4	1	0	0	0	0	29	38	6	1	0	0	0	0	45
16:15	4	1	2	0	0	0	0	7	39	5	1	0	0	0	0	45
16:30	7	1	0	0	0	0	0	8	36	6	1	0	0	0	0	43
16:45	24	7	1	0	0	0	0	32	50	9	0	0	0	1	0	60
H/TOT	59	13	4	0	0	0	0	76	163	26	3	0	0	1	0	193
17:00	13	1	0	0	0	0	0	14	35	4	0	0	0	0	0	39
17:15	15	2	0	0	0	0	0	17	36	6	1	0	0	0	0	43
17:30	42	0	0	0	0	0	0	42	55	6	2	0	0	1	0	64
17:45	41	4	1	0	0	1	0	47	45	4	0	0	0	3	0	52
H/TOT	111	7	1	0	0	1	0	120	171	20	3	0	0	4	0	198
P/TOT	223	42	8	0	1	2	0	276	476	70	10	1	0	6	0	563

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 13 FROM STEYNING WAY TO A29 SHRIPNEY ROAD (S)								MOVEMENT 14 FROM STEYNING WAY TO ROWAN WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	3	4	3	0	0	0	0	10	6	3	1	0	0	0	0	10
07:15	3	4	1	0	0	0	0	8	6	5	1	0	0	0	0	12
07:30	10	8	0	0	0	0	0	18	7	5	2	0	0	0	0	14
07:45	6	7	2	0	0	0	0	15	6	3	1	0	0	0	0	10
H/TOT	22	23	6	0	0	0	0	51	25	16	5	0	0	0	0	46
08:00	8	4	2	0	0	0	0	14	4	2	1	1	0	0	0	8
08:15	9	6	1	0	0	0	0	16	7	1	0	0	0	0	0	8
08:30	16	12	1	0	0	0	0	29	7	2	3	1	0	0	0	13
08:45	10	7	2	1	0	0	0	20	11	8	5	0	0	0	0	24
H/TOT	43	29	6	1	0	0	0	79	29	13	9	2	0	0	0	53
09:00	14	4	4	0	0	0	0	22	11	3	0	0	0	0	0	14
09:15	16	2	2	0	0	1	0	21	11	1	4	1	0	0	0	17
09:30	22	6	0	0	0	0	0	28	8	1	1	0	0	0	0	10
09:45	17	8	5	0	0	0	0	30	10	5	0	0	0	0	0	15
H/TOT	69	20	11	0	0	1	0	101	40	10	5	1	0	0	0	56
P/TOT	134	72	23	1	0	1	0	231	94	19	19	3	0	0	0	155

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 13 FROM STEYNING WAY TO A29 SHRIPNEY ROAD (S)								MOVEMENT 14 FROM STEYNING WAY TO ROWAN WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	17	2	3	0	0	0	0	22	14	5	0	0	0	0	0	19
15:15	14	8	0	0	0	0	0	22	14	5	1	0	0	0	0	20
15:30	22	2	0	0	0	0	0	24	18	5	1	0	0	0	0	24
15:45	17	9	3	0	0	0	0	29	16	3	1	0	0	0	0	20
H/TOT	70	21	6	0	0	0	0	97	62	18	3	0	0	0	0	83
16:00	42	4	0	0	0	1	0	47	25	6	1	1	0	1	0	34
16:15	21	7	0	0	0	0	0	28	17	1	0	0	0	0	0	18
16:30	35	6	1	0	0	0	0	42	22	3	0	1	0	0	0	26
16:45	15	6	0	0	0	0	0	21	25	6	0	0	0	1	0	32
H/TOT	113	23	1	0	0	1	0	138	89	16	1	2	0	2	0	110
17:00	43	3	0	0	0	0	0	46	47	6	0	0	0	1	0	54
17:15	42	1	0	0	0	0	0	43	25	2	0	1	0	0	0	28
17:30	34	1	0	0	0	1	0	36	42	1	0	0	0	0	0	43
17:45	15	1	0	0	0	0	0	16	21	5	0	2	0	0	0	28
H/TOT	134	6	0	0	0	1	0	141	135	14	0	3	0	1	0	153
P/TOT	317	50	7	0	0	2	0	376	286	43	4	5	0	3	0	346

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 15 FROM STEYNING WAY TO A29 SHRIPNEY ROAD (N)								MOVEMENT 16 FROM STEYNING WAY TO STEYNING WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT
07:00	9	5	1	0	0	0	0	15	0	0	0	0	0	0	0	0
07:15	8	6	1	0	0	0	0	15	0	0	0	0	0	0	0	0
07:30	3	8	1	0	0	0	0	12	0	0	0	0	0	0	0	0
07:45	11	7	0	0	0	0	0	18	0	0	0	0	0	0	0	0
H/TOT	31	26	3	0	0	0	0	60	0	0	0	0	0	0	0	0
08:00	6	5	1	0	0	0	0	12	0	0	0	0	0	0	0	0
08:15	11	4	1	0	0	0	0	16	0	0	0	0	0	0	0	0
08:30	10	6	1	1	0	0	0	18	0	0	0	0	0	0	0	0
08:45	5	5	1	0	0	0	0	11	0	0	0	0	0	0	0	0
H/TOT	32	20	4	1	0	0	0	57	0	0	0	0	0	0	0	0
09:00	6	5	2	1	0	0	0	14	0	0	0	0	0	0	0	0
09:15	12	4	3	0	0	0	0	19	0	0	0	0	0	0	0	0
09:30	13	2	1	0	0	0	0	16	0	0	0	0	0	0	0	0
09:45	7	6	0	0	0	0	0	13	0	0	0	0	0	0	0	0
H/TOT	38	17	6	1	0	0	0	62	0	0	0	0	0	0	0	0
P/TOT	101	63	13	2	0	0	0	179	0	0	0	0	0	0	0	0

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	MOVEMENT 15 FROM STEYNING WAY TO A29 SHRIPNEY ROAD (N)								MOVEMENT 16 FROM STEYNING WAY TO STEYNING WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	19	4	1	1	0	0	0	25	0	0	0	0	0	0	0	0
15:15	19	5	3	1	0	0	0	28	0	0	0	0	0	0	0	0
15:30	18	5	0	0	0	0	0	23	0	0	0	0	0	0	0	0
15:45	20	5	1	0	0	0	0	26	0	0	0	0	0	0	0	0
H/TOT	76	19	5	2	0	0	0	102	0	0	0	0	0	0	0	0
16:00	38	4	2	0	0	1	0	45	0	0	0	0	0	0	0	0
16:15	22	2	0	1	0	0	0	25	0	0	0	0	0	0	0	0
16:30	19	1	1	2	0	0	0	23	0	0	0	0	0	0	0	0
16:45	12	5	0	0	0	0	0	17	0	0	0	0	0	0	0	0
H/TOT	91	12	3	3	0	1	0	110	0	0	0	0	0	0	0	0
17:00	52	2	0	0	0	2	0	56	0	0	0	0	0	0	0	0
17:15	32	6	0	0	0	1	0	39	0	0	0	0	0	0	0	0
17:30	11	1	0	0	0	1	0	13	0	0	0	0	0	0	0	0
17:45	10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
H/TOT	105	9	0	0	0	4	0	118	0	0	0	0	0	0	0	0
P/TOT	272	40	8	5	0	5	0	330	0	0	0	0	0	0	0	0

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	TO ARM A A29 SHRIPNEY ROAD (N)								FROM ARM A A29 SHRIPNEY ROAD (N)							
	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT
07:00	187	60	6	4	2	2	0	261	159	40	14	7	2	0	0	222
07:15	206	67	9	4	0	2	0	288	186	48	9	5	0	2	0	250
07:30	180	57	10	5	1	7	0	260	200	45	8	4	0	4	0	261
07:45	233	58	9	3	0	3	0	306	234	47	4	5	1	2	0	293
H/TOT	806	242	34	16	3	14	0	1115	779	180	35	21	3	8	0	1026
08:00	245	52	13	2	1	4	0	317	238	39	3	4	0	3	0	287
08:15	224	47	8	7	0	1	0	287	261	44	9	4	0	0	0	318
08:30	182	35	11	4	2	1	0	235	185	34	6	8	1	4	0	238
08:45	132	39	6	2	0	0	0	179	254	42	11	3	0	4	0	314
H/TOT	783	173	38	15	3	6	0	1018	938	159	29	19	1	11	0	1157
09:00	158	38	10	3	1	0	0	210	157	31	5	11	0	3	0	207
09:15	161	46	15	4	0	2	0	228	189	29	12	7	0	2	0	239
09:30	145	30	11	4	0	1	0	191	162	31	8	2	0	0	0	203
09:45	149	29	7	5	0	2	0	192	183	40	19	5	0	3	0	250
H/TOT	613	143	43	16	1	5	0	821	691	131	44	25	0	8	0	899
P/TOT	2202	558	115	47	7	25	0	2954	2408	470	109	65	4	27	0	3082

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	TO ARM A A29 SHRIPNEY ROAD (N)								FROM ARM A A29 SHRIPNEY ROAD (N)							
	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT
15:00	212	34	10	4	0	1	0	261	184	41	8	11	0	2	0	246
15:15	247	32	9	3	1	2	0	294	192	50	8	5	0	0	0	255
15:30	234	35	5	2	0	2	0	278	235	60	10	3	2	5	0	315
15:45	222	39	11	2	0	6	0	280	241	60	16	4	2	3	0	326
H/TOT	915	140	35	11	1	11	0	1113	852	211	42	23	4	10	0	1142
16:00	233	44	10	7	1	2	0	297	244	63	10	3	1	0	0	321
16:15	277	39	10	2	0	4	0	332	224	72	7	4	0	4	0	311
16:30	271	40	5	2	0	5	0	323	193	34	8	5	0	2	0	242
16:45	198	49	4	1	0	5	0	257	222	64	10	1	0	0	0	297
H/TOT	979	172	29	12	1	16	0	1209	883	233	35	13	1	6	0	1171
17:00	277	33	6	1	0	3	0	320	263	62	13	4	0	2	0	344
17:15	268	44	6	1	2	6	0	327	314	64	6	2	0	5	0	391
17:30	220	29	7	0	0	4	0	260	174	32	3	0	0	6	0	215
17:45	191	20	4	2	0	3	0	220	277	52	9	0	0	0	0	338
H/TOT	956	126	23	4	2	16	0	1127	1028	210	31	6	0	13	0	1288
P/TOT	2850	438	87	27	4	43	0	3449	2763	654	108	42	5	29	0	3601

TO ARM A IS TOTAL OF MOVEMENTS 4, 5, 10, 15

FROM ARM A IS TOTAL OF MOVEMENTS 1, 2, 3, 4

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	TO ARM B ROWAN WAY								FROM ARM B ROWAN WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT
07:00	168	43	13	5	2	0	0	231	124	41	2	6	2	2	0	177
07:15	185	43	7	5	0	2	0	242	153	50	5	4	0	0	0	212
07:30	172	39	8	2	0	3	0	224	161	34	9	6	1	6	0	217
07:45	201	29	5	3	1	1	0	240	187	36	9	2	0	0	0	234
H/TOT	726	154	33	15	3	6	0	937	625	161	25	18	3	8	0	840
08:00	198	33	5	4	0	1	0	241	187	30	5	6	1	3	0	232
08:15	213	28	8	5	0	0	0	254	174	28	8	9	0	1	0	220
08:30	169	27	11	5	1	2	0	215	152	25	13	3	2	1	0	196
08:45	205	37	11	3	0	0	0	256	138	30	8	2	0	0	0	178
H/TOT	785	125	35	17	1	3	0	966	651	113	34	20	3	5	0	826
09:00	182	28	8	9	0	1	0	228	158	31	11	2	1	1	0	204
09:15	182	20	11	5	0	3	0	221	156	34	10	4	0	1	0	205
09:30	137	27	9	1	0	0	0	174	131	20	9	5	0	1	0	166
09:45	169	30	13	3	0	4	0	219	145	20	10	4	0	0	0	179
H/TOT	670	105	41	18	0	8	0	842	590	105	40	15	1	3	0	754
P/TOT	2181	384	109	50	4	17	0	2745	1866	379	99	53	7	16	0	2420

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	TO ARM B ROWAN WAY								FROM ARM B ROWAN WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	195	34	7	6	0	3	0	245	174	24	9	4	0	1	0	212
15:15	208	38	9	6	0	0	0	261	193	28	7	4	0	0	0	232
15:30	243	43	10	4	1	3	0	304	205	26	3	2	0	1	0	237
15:45	234	38	10	5	2	0	0	289	178	28	8	2	0	3	0	219
H/TOT	880	153	36	21	3	6	0	1099	750	106	27	12	0	5	0	900
16:00	257	47	8	3	1	1	0	317	164	30	5	7	1	1	0	208
16:15	231	50	5	4	0	0	0	290	216	29	10	1	0	2	0	258
16:30	239	35	5	6	0	1	0	286	189	32	3	0	0	5	0	229
16:45	238	47	6	1	0	3	0	295	197	41	5	3	0	4	0	250
H/TOT	965	179	24	14	1	5	0	1188	766	132	23	11	1	12	0	945
17:00	272	49	6	2	0	3	0	332	184	32	6	1	0	2	0	225
17:15	287	51	4	3	0	4	0	349	208	21	5	1	2	2	0	239
17:30	236	36	4	2	0	4	0	282	208	27	5	0	0	2	0	242
17:45	242	29	2	2	0	0	0	275	195	18	4	2	0	4	0	223
H/TOT	1037	165	16	9	0	11	0	1238	795	98	20	4	2	10	0	929
P/TOT	2882	497	76	44	4	22	0	3525	2311	336	70	27	3	27	0	2774

TO ARM B IS TOTAL OF MOVEMENTS 3, 8, 9, 14

FROM ARM B IS TOTAL OF MOVEMENTS 5, 6, 7, 8

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	TO ARM C A29 SHRIPNEY ROAD (S)								FROM ARM C A29 SHRIPNEY ROAD (S)							
	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT
07:00	62	16	9	3	0	0	0	90	146	41	7	2	0	0	0	196
07:15	76	30	5	0	0	0	0	111	156	48	8	0	0	3	0	215
07:30	94	34	6	0	0	1	0	135	195	51	8	2	0	3	0	259
07:45	129	33	9	3	0	0	0	174	202	36	9	3	0	4	0	254
H/TOT	361	113	29	6	0	1	0	510	699	176	32	7	0	10	0	924
08:00	157	27	5	4	0	3	0	196	201	50	12	0	0	2	0	265
08:15	156	34	8	2	0	0	0	200	205	51	12	1	0	0	0	269
08:30	151	31	4	1	0	3	0	190	170	26	7	2	0	1	0	206
08:45	174	31	6	3	0	4	0	218	175	34	9	2	0	0	0	220
H/TOT	638	123	23	10	0	10	0	804	751	161	40	5	0	3	0	960
09:00	184	26	7	0	0	1	0	218	199	27	4	2	0	1	0	233
09:15	181	17	10	3	0	2	0	213	170	31	8	0	0	3	0	212
09:30	187	17	3	0	0	0	0	207	175	28	7	2	0	0	0	212
09:45	166	27	14	2	0	0	0	209	177	32	9	1	0	3	0	222
H/TOT	718	87	34	5	0	3	0	847	721	118	28	5	0	7	0	879
P/TOT	1717	323	86	21	0	14	0	2161	2171	455	100	17	0	20	0	2763

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	TO ARM C A29 SHRIPNEY ROAD (S)								FROM ARM C A29 SHRIPNEY ROAD (S)							
	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCI	PCL	TOT
15:00	186	26	6	3	0	0	0	221	234	40	6	0	0	1	0	281
15:15	194	44	4	5	0	0	0	247	233	27	4	6	2	2	0	274
15:30	224	32	4	0	1	5	0	266	269	38	7	1	0	6	0	321
15:45	209	38	10	0	0	3	0	260	247	32	5	1	0	3	0	288
H/TOT	813	140	24	8	1	8	0	994	983	137	22	8	2	12	0	1164
16:00	218	29	6	0	0	1	0	254	269	26	8	1	0	0	0	304
16:15	226	53	3	0	0	1	0	283	247	39	5	0	0	2	0	293
16:30	188	32	6	0	0	1	0	227	259	36	3	1	0	0	0	299
16:45	191	44	3	2	0	1	0	241	220	40	2	0	0	4	0	266
H/TOT	823	158	18	2	0	4	0	1005	995	141	18	2	0	6	0	1162
17:00	228	36	5	0	0	1	0	270	231	20	1	0	0	1	0	253
17:15	250	38	3	0	0	3	0	294	243	49	3	0	0	5	0	300
17:30	188	27	2	0	0	4	0	221	255	31	5	2	0	2	0	295
17:45	218	29	5	0	0	4	0	256	219	21	1	0	0	4	0	245
H/TOT	884	130	15	0	0	12	0	1041	948	121	10	2	0	12	0	1093
P/TOT	2520	428	57	10	1	24	0	3040	2926	399	50	12	2	30	0	3419

TO ARM C IS TOTAL OF MOVEMENTS 2, 7, 12, 13

FROM ARM C IS TOTAL OF MOVEMENTS 9, 10, 11, 12

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

TIME	TO ARM D STEYNING WAY								FROM ARM D STEYNING WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	30	15	0	3	0	0	0	48	18	12	5	0	0	0	0	35
07:15	45	21	4	0	0	1	0	71	17	15	3	0	0	0	0	35
07:30	130	21	4	5	0	2	0	162	20	21	3	0	0	0	0	44
07:45	83	16	2	1	0	2	0	104	23	17	3	0	0	0	0	43
H/TOT	288	73	10	9	0	5	0	385	78	65	14	0	0	0	0	157
08:00	44	18	1	1	0	0	0	64	18	11	4	1	0	0	0	34
08:15	74	25	7	0	0	0	0	106	27	11	2	0	0	0	0	40
08:30	38	12	5	5	0	0	0	60	33	20	5	2	0	0	0	60
08:45	82	19	13	0	0	0	0	114	26	20	8	1	0	0	0	55
H/TOT	238	74	26	6	0	0	0	344	104	62	19	4	0	0	0	189
09:00	21	9	1	4	0	3	0	38	31	12	6	1	0	0	0	50
09:15	30	18	3	0	0	0	0	51	39	7	9	1	0	1	0	57
09:30	42	14	3	4	0	0	0	63	43	9	2	0	0	0	0	54
09:45	55	25	9	0	0	0	0	89	34	19	5	0	0	0	0	58
H/TOT	148	66	16	8	0	3	0	241	147	47	22	2	0	1	0	219
P/TOT	674	213	52	23	0	8	0	970	329	174	55	6	0	1	0	565

MANUAL CLASSIFIED COUNTS



JOB REF: 21686

JOB NAME: BOGNOR REGIS

SITE: 2

LOCATION: A29 SHRIPNEY ROAD / ROWAN WAY / STEYNING WAY

DATE: 16/05/2017

DAY: TUESDAY

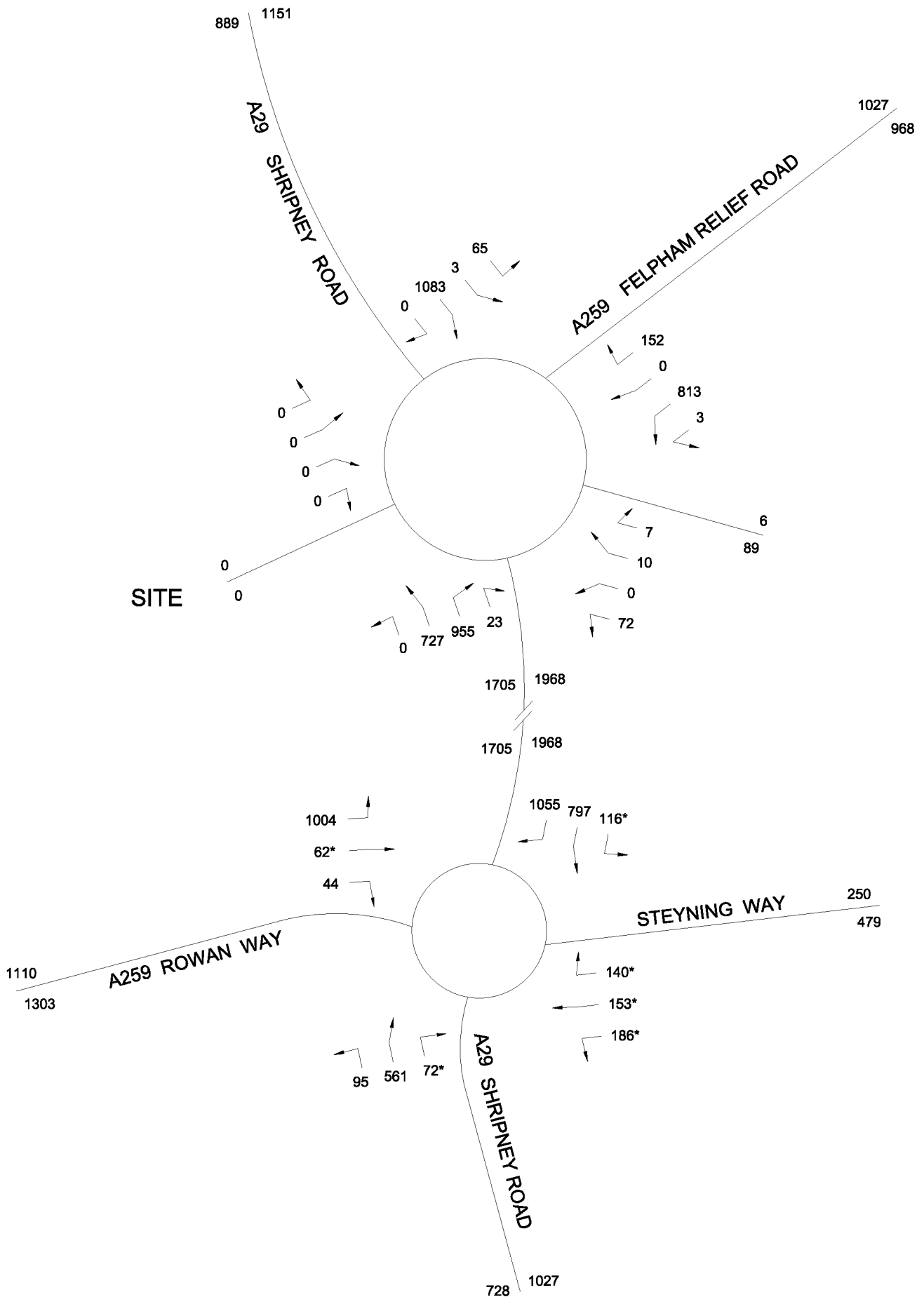
TIME	TO ARM D STEYNING WAY								FROM ARM D STEYNING WAY							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	49	22	4	3	0	0	0	78	50	11	4	1	0	0	0	66
15:15	16	9	1	2	1	0	0	29	47	18	4	1	0	0	0	70
15:30	66	26	2	0	0	2	0	96	58	12	1	0	0	0	0	71
15:45	54	22	3	0	0	0	0	79	53	17	5	0	0	0	0	75
H/TOT	185	79	10	5	1	2	0	282	208	58	14	2	0	0	0	282
16:00	74	13	2	2	0	0	0	91	105	14	3	1	0	3	0	126
16:15	13	8	4	0	0	3	0	28	60	10	0	1	0	0	0	71
16:30	19	5	0	1	0	0	0	25	76	10	2	3	0	0	0	91
16:45	64	22	4	0	0	0	0	90	52	17	0	0	0	1	0	70
H/TOT	170	48	10	3	0	3	0	234	293	51	5	5	0	4	0	358
17:00	43	7	3	2	0	1	0	56	142	11	0	0	0	3	0	156
17:15	59	10	1	0	0	0	0	70	99	9	0	1	0	1	0	110
17:30	80	1	0	0	0	0	0	81	87	3	0	0	0	2	0	92
17:45	86	19	3	0	0	1	0	109	46	6	0	2	0	0	0	54
H/TOT	268	37	7	2	0	2	0	316	374	29	0	3	0	6	0	412
P/TOT	623	164	27	10	1	7	0	832	875	118	19	10	0	10	0	1052

TO ARM D IS TOTAL OF MOVEMENTS 1, 6, 11, 16

FROM ARM D IS TOTAL OF MOVEMENTS 13, 14, 15, 16

**2031 REFERENCE FLOWS (ADJUSTED): A29/FELPHAM RELIEF ROAD
ROUNDAABOUT AND A29/ROWAN WAY ROUNDAABOUT**

6.1	AM Peak Hour
6.2	PM Peak Hour



ADJUSTED FLOWS BASED
ON 2017 SURVEY
FIGURES IN PCU'S

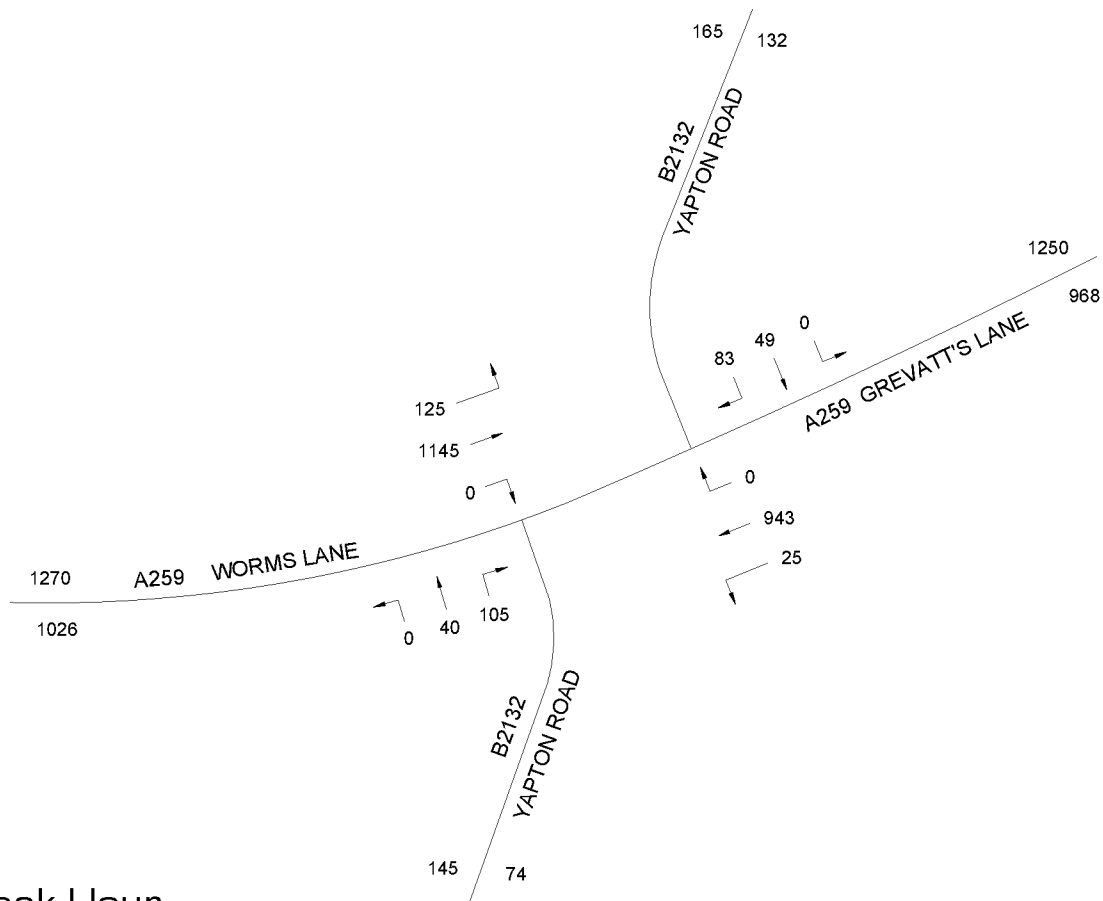


Title
2031 REFERENCE FLOWS (ADJUSTED)
PM PEAK

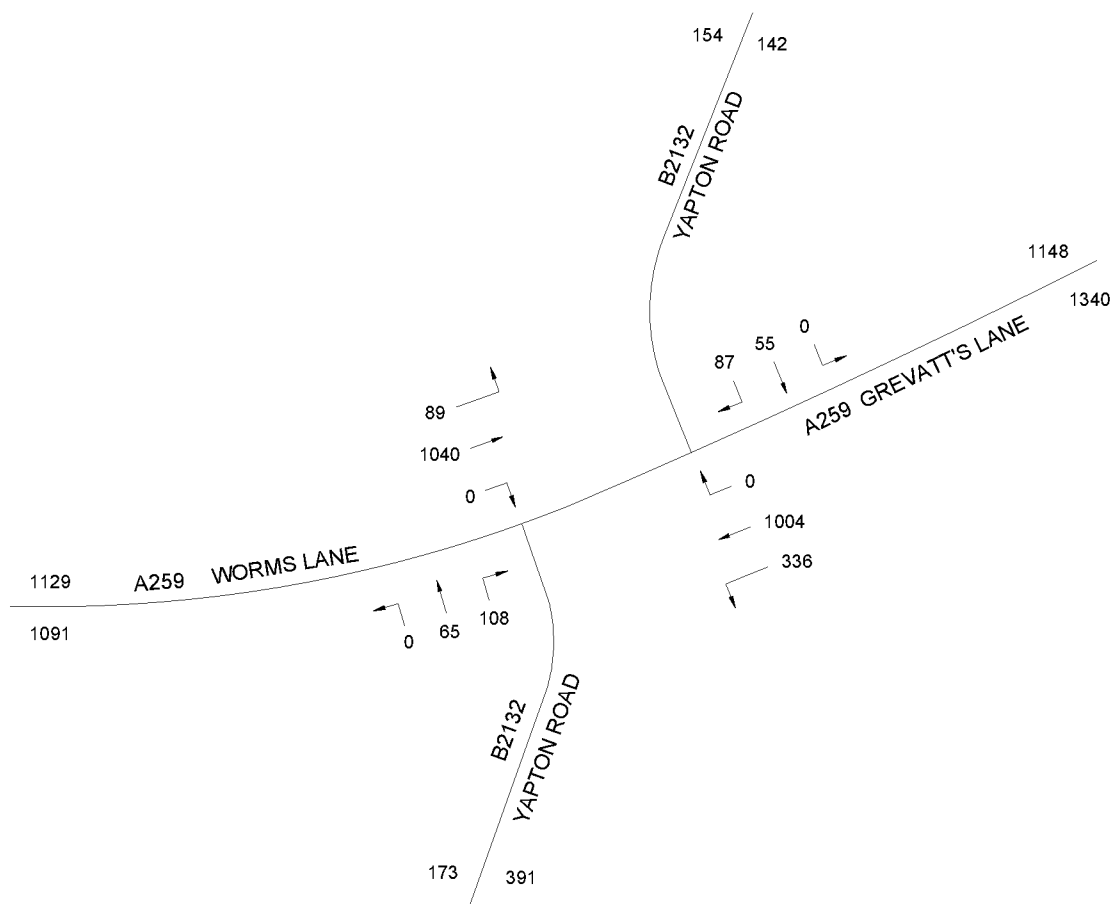
Scale

APPENDIX 6.2

2031 REFERENCE FLOWS (ADJUSTED) A259/B3132 JUNCTION

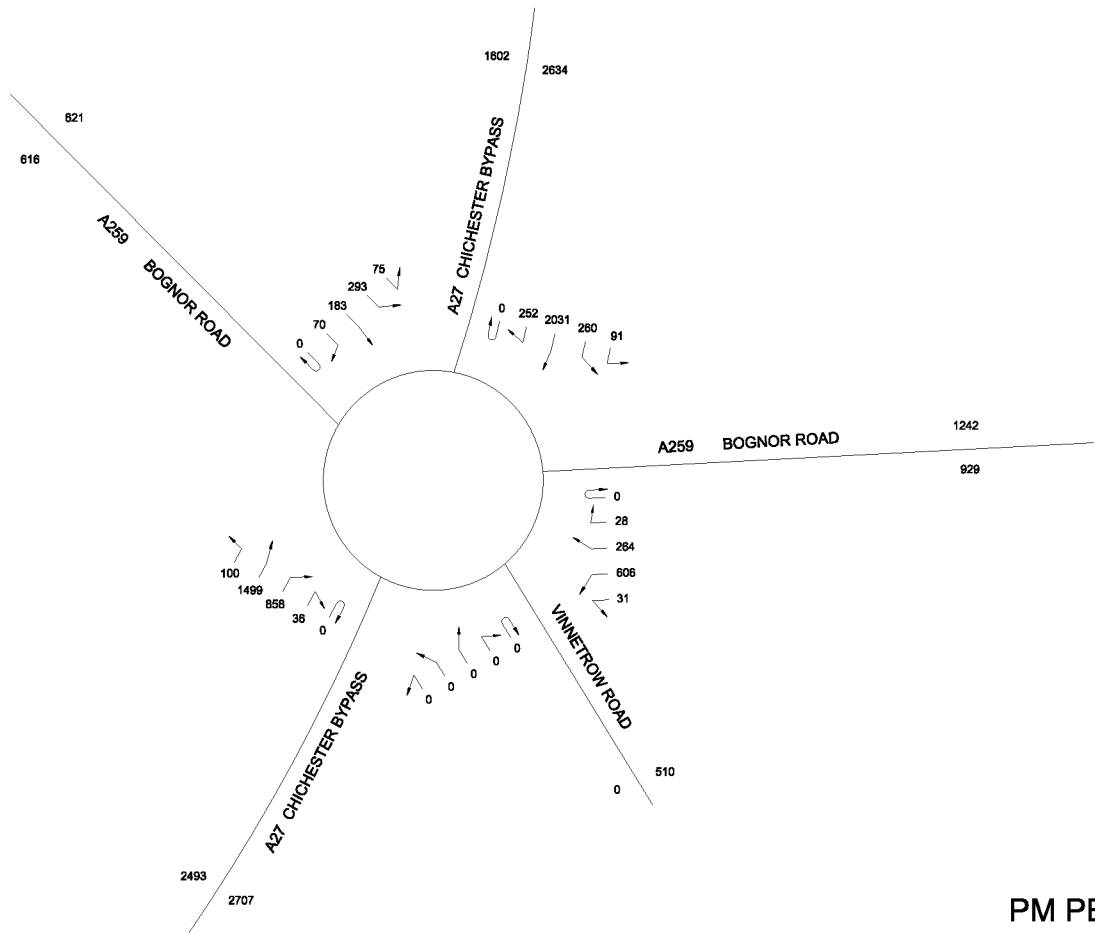
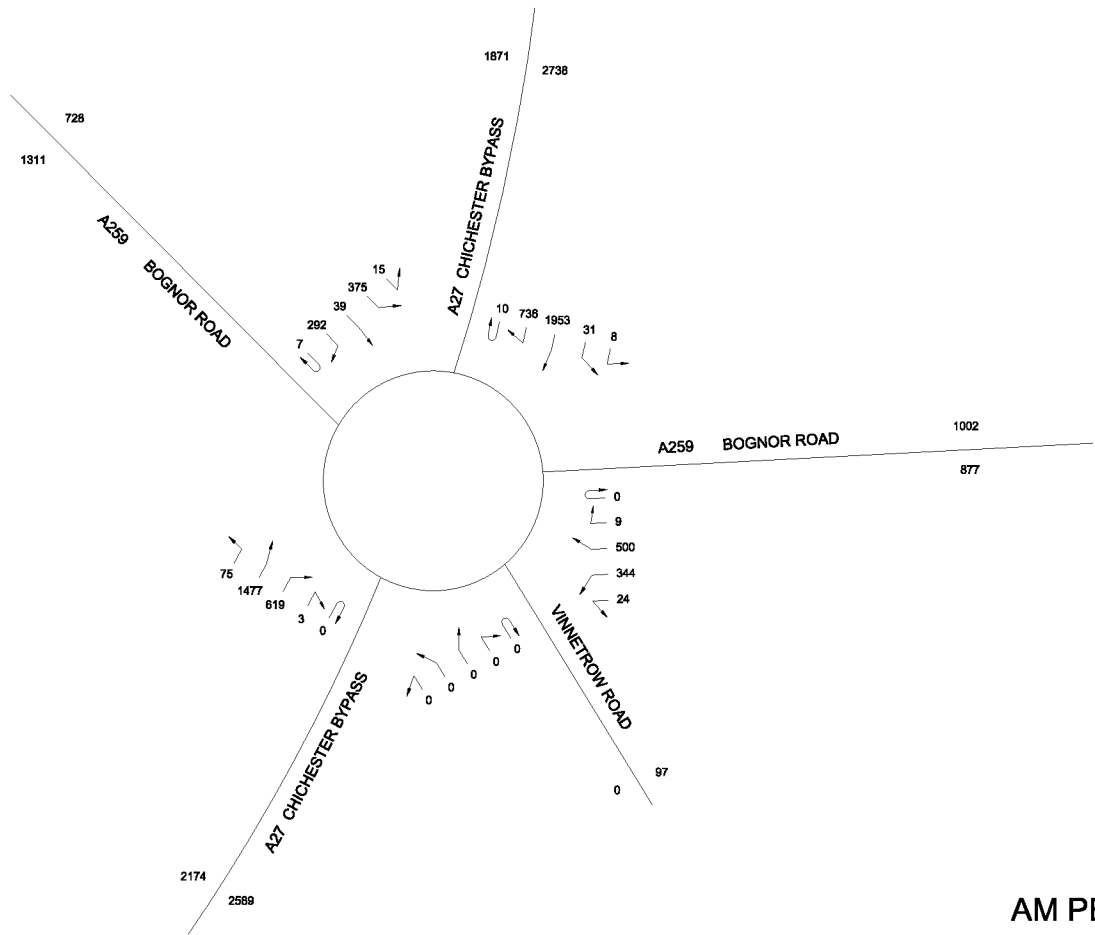


AM Peak Hour



PM Peak Hour

**REFERENCE FLOWS (ADJUSTED) :
A259/A27 CHICHESTER BYPASS ROUNDABOUT**



FIGURES IN PCU'S



Title
2031 REFERENCE FLOWS (ADJUSTED)
A27 / A259 ROUNDABOUT

Scale

APPENDIX 8.0

PROPOSED DEVELOPMENT

- 9.1 Proposed Site Layout
- 9.2 Site Access Arrangements
- 9.3 AutoTRACK Assessment: 16.5m Articulated Vehicle
- 9.4 AutoTRACK Assessment: 10m Rigid Vehicle
- 9.5 AutoTRACK Assessment: 11.4m Refuse Truck

© Mountford Pigott LLP 2012
 Reproduction in whole or in part by any means is prohibited without the prior permission of Mountford Pigott LLP.

This drawing is only to the stated scale if it is printed correctly. MPLLP cannot accept responsibility for the incorrect scaling of drawings printed by third parties.

All dimensions are in mm unless otherwise stated.

If this drawing forms part of an application for planning permission on behalf of the applicant named below, it shall not be used for any other purpose without the express permission of Mountford Pigott LLP.

This drawing may incorporate information from other professionals. Mountford Pigott LLP cannot accept responsibility for the integrity and accuracy of such information. Any clarification and/or additions that are required appertaining to such information should be sought from the relevant profession or their appointment representative as listed below.

LIST OF INFORMANTS
 Ordnance Survey - Masterplan - Licence No. 100019980

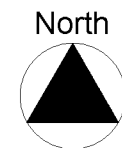
REVISIONS	DATE	DRN	REV
-----------	------	-----	-----

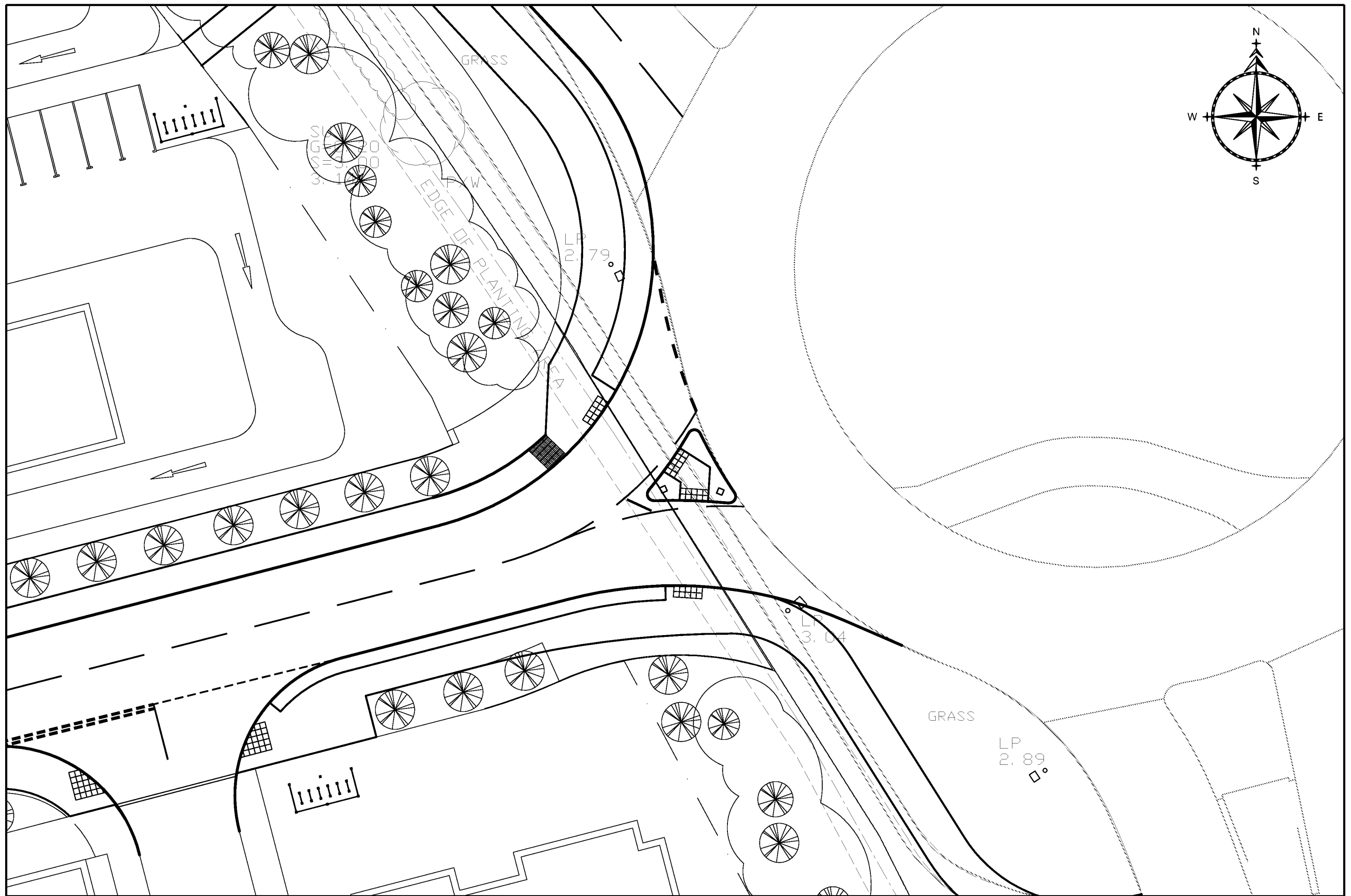


1
P05

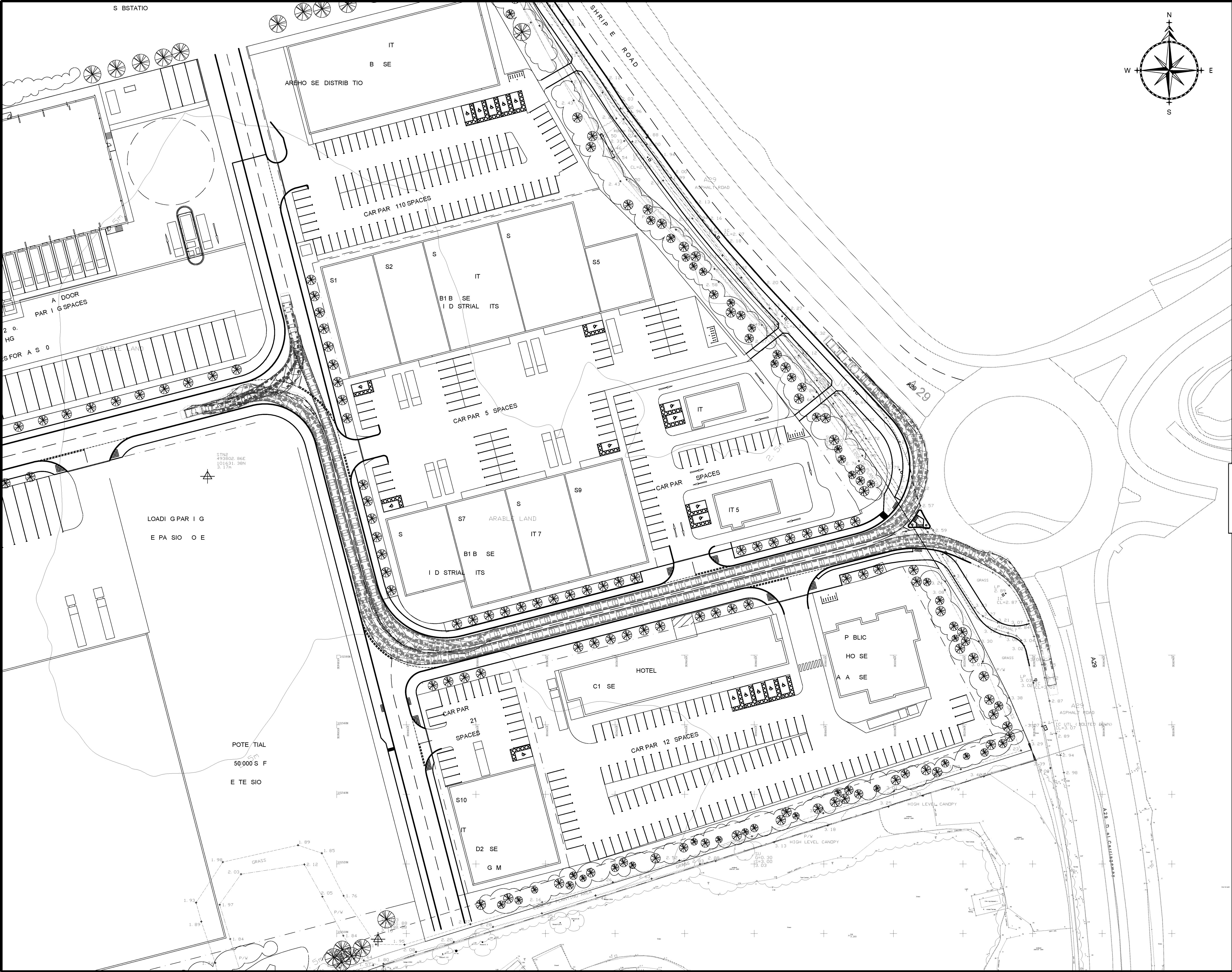
P05 - SITE LOCATION PLAN
 1 : 2500

APPENDIX 9.1
PROPOSED SITE LAYOUT





APPENDIX 9.2
SITE ACCESS ARRANGEMENTS



© Copyright ADL Highway Engineering Ltd

NOTES

1. Do not scale from this drawing.

2. All details to be confirmed on site.

5.75

0.106

13.6

1.39

4.3

2.7

6.4

1.4

1.4

2.8

Max Legal Articulated Vehicle (16.5m)

Overall Length

Overall Width

Overall Body Height

Min Body Ground Clearance

Max Track Width

Lock to Lock Time

Kerb to Kerb Turning Radius

16.500m

2.500m

5.632m

0.396m

2.500m

6.00s

6.870m

APPENDIX 9.3

SWEPT PATH ANALYSIS:

16.5M ARTICULATED

VEHICLE

--	--	--	--

No.	Revision Note.	Date.	By.	Checked.
-----	----------------	-------	-----	----------

AMENDMENTS



ADL Highway Engineering Ltd.
ADL House
The Oaklands Business Park
Yate, Bristol
BS37 5NA
Tel : 01454 332100
Fax : 01454 327983
E-Mail : hcad@adlhighways.co.uk

ADL Job No. H1194

Project
Saltbox
Bognor Regis

Title
Swept Path Analysis
16.5m Articulated Vehicle

Date	04.08.17	Drawn	MCW
Checked	AMC	Date	04.08.17
Approved		Date	
Scale	1:500	Orig No.	H1194-TR06
Rev.			-



© Copyright ADL Highway Engineering Ltd

NOTES

1. Do not scale from this drawing.

2. All details to be confirmed on site.

Phoenix 2 One-Pass (with Elite 6x4 chassis)
Overall Length 10.980m
Overall Width 2.500m
Overall Body Height 3.751m
Min Body Ground Clearance 0.304m
Track Width 2.500m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 9.000m

APPENDIX 9.4
SWEPT PATH ANALYSIS:
11M REFUSE TRUCK

No.	Revision Note.			Date.	By, Checked.
AMENDMENTS					
ADL H I G H W A Y S					
ADL Highway Engineering Ltd. ADL House The Oaklands Business Park Yate, Bristol BS37 5NA Tel : 01454 332100 Fax : 01454 327983 E-Mail : hcad@adlhighways.co.uk					
ADL Job No.		H1194			
Project		Saltbox Bognor Regis			
Title		Swept Path Analysis 11.0m Refuse Vehicle			
Date		Drawn			
04.08.17		MCW			
Checked	Date	Approved	Date		
AMC	04.08.17				
Scale	Orig No.	Rev.			
1:500	H1194-TRO7	-			

APPENDIX 10.0

TRICS

10.1	Hotel
10.2	Public House
10.3	Drive-thru Restaurant
10.4	Gym

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : A - HOTELS

VEHICLES

Selected regions and areas:

02 SOUTH EAST	
BU BUCKINGHAMSHIRE	1 days
WS WEST SUSSEX	1 days
03 SOUTH WEST	
DV DEVON	1 days
GS GLOUCESTERSHIRE	1 days
04 EAST ANGLIA	
CA CAMBRIDGESHIRE	1 days
NF NORFOLK	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE	
WY WEST YORKSHIRE	1 days
08 NORTH WEST	
LC LANCASHIRE	1 days
09 NORTH	
TV TEES VALLEY	1 days
TW TYNE & WEAR	1 days
11 SCOTLAND	
AG ANGUS	1 days

Secondary Filtering selection:

Parameter: Number of bedrooms

Actual Range: 4 to 139 (units:)

Range Selected by User: 4 to 380 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 13/11/15

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Thursday	2 days
Friday	5 days

Selected survey types:

Manual count	11 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6
Edge of Town	5

Selected Location Sub Categories:

Industrial Zone	1
Development Zone	1
Residential Zone	4
Built-Up Zone	1
Out of Town	1
No Sub Category	3

Secondary Filtering selection:

Use Class:

C1 11 days

Population within 1 mile:

5,001 to 10,000 4 days

10,001 to 15,000 2 days

20,001 to 25,000 4 days

100,001 or More 1 days

Population within 5 miles:

25,001 to 50,000 2 days

100,001 to 125,000 1 days

125,001 to 250,000 4 days

250,001 to 500,000 3 days

500,001 or More 1 days

Car ownership within 5 miles:

0.6 to 1.0 2 days

1.1 to 1.5 9 days

Travel Plan:

No 11 days

PTAL Rating:

No PTAL Present 11 days

LIST OF SITES relevant to selection parameters

1	AG-06-A-01	BOUTIQUE B&B		ANGUS
	CLIFFBURN ROAD			
	HAYSHEAD			
	ARBROATH			
	Edge of Town			
	Residential Zone			
	Total Number of bedrooms:	4		
	Survey date: TUESDAY	22/05/12		Survey Type: MANUAL
2	BU-06-A-02	HOLIDAY INN		BUCKINGHAMSHIRE
	NEW ROAD			
	WESTON TURVILLE			
	AYLESBURY			
	Edge of Town			
	Out of Town			
	Total Number of bedrooms:	139		
	Survey date: WEDNESDAY	01/10/14		Survey Type: MANUAL
3	CA-06-A-03	TRAVELODGE		CAMBRIDGESHIRE
	CLIFTON WAY			
	CAMBRIDGE LEISURE PARK			
	CAMBRIDGE			
	Suburban Area (PPS6 Out of Centre)			
	Built-Up Zone			
	Total Number of bedrooms:	120		
	Survey date: FRIDAY	16/10/09		Survey Type: MANUAL
4	DV-06-A-03	FUTURE INN		DEVON
	WILLIAM PRANCE ROAD			
	PLYMOUTH			
	Edge of Town			
	Industrial Zone			
	Total Number of bedrooms:	110		
	Survey date: WEDNESDAY	18/07/12		Survey Type: MANUAL
5	GS-06-A-02	PREMIER INN		GLOUCESTERSHIRE
	GLOUCESTER ROAD			
	SAINT MARKS			
	CHELTENHAM SPA			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of bedrooms:	67		
	Survey date: THURSDAY	28/11/13		Survey Type: MANUAL
6	LC-06-A-04	BEST WESTERN		LANCASHIRE
	LEYLAND WAY			
	LEYLAND			
	Edge of Town			
	Residential Zone			
	Total Number of bedrooms:	93		
	Survey date: FRIDAY	21/10/11		Survey Type: MANUAL
7	NF-06-A-02	HOLIDAY INN		NORFOLK
	IPSWICH ROAD			
	HARFORD PARK			
	NORWICH			
	Edge of Town			
	No Sub Category			
	Total Number of bedrooms:	119		
	Survey date: THURSDAY	30/09/10		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	TV-06-A-02	HOTEL		TEES VALLEY
	MARTON ROAD			
	MIDDLESBROUGH			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of bedrooms:	74		
	Survey date: FRIDAY	18/12/09		Survey Type: MANUAL
9	TW-06-A-02	TRAVELODGE		TYNE & WEAR
	CASPER WAY			
	SWALWELL			
	GATESHEAD			
	Suburban Area (PPS6 Out of Centre)			
	Development Zone			
	Total Number of bedrooms:	60		
	Survey date: FRIDAY	13/11/15		Survey Type: MANUAL
10	WS-06-A-03	EXPRESS BY HOL. INN		WEST SUSSEX
	HASLETT AVENUE EAST			
	CRAWLEY			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of bedrooms:	74		
	Survey date: MONDAY	07/12/09		Survey Type: MANUAL
11	WY-06-A-02	HOTEL		WEST YORKSHIRE
	CLIFF ROAD			
	HEADINGLEY			
	LEEDS			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of bedrooms:	24		
	Survey date: FRIDAY	11/06/10		Survey Type: MANUAL

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

VEHICLES

Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	80	0.078	11	80	0.183	11	80	0.261
08:00 - 09:00	11	80	0.147	11	80	0.252	11	80	0.399
09:00 - 10:00	11	80	0.169	11	80	0.137	11	80	0.306
10:00 - 11:00	11	80	0.103	11	80	0.111	11	80	0.214
11:00 - 12:00	11	80	0.095	11	80	0.132	11	80	0.227
12:00 - 13:00	11	80	0.110	11	80	0.084	11	80	0.194
13:00 - 14:00	11	80	0.120	11	80	0.152	11	80	0.272
14:00 - 15:00	11	80	0.086	11	80	0.094	11	80	0.180
15:00 - 16:00	11	80	0.112	11	80	0.155	11	80	0.267
16:00 - 17:00	11	80	0.140	11	80	0.122	11	80	0.262
17:00 - 18:00	11	80	0.198	11	80	0.105	11	80	0.303
18:00 - 19:00	11	80	0.214	11	80	0.119	11	80	0.333
19:00 - 20:00	11	80	0.193	11	80	0.124	11	80	0.317
20:00 - 21:00	11	80	0.113	11	80	0.079	11	80	0.192
21:00 - 22:00	11	80	0.063	11	80	0.071	11	80	0.134
22:00 - 23:00	1	74	0.081	1	74	0.068	1	74	0.149
23:00 - 24:00	1	74	0.014	1	74	0.000	1	74	0.014
Total Rates:			2.036			1.988			4.024

Parameter summary

Trip rate parameter range selected: 4 - 139 (units:)
 Survey date range: 01/01/09 - 13/11/15
 Number of weekdays (Monday-Friday): 11
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 2
 Surveys manually removed from selection: 0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : C - PUB/RESTAURANT

VEHICLESSelected regions and areas:

02 SOUTH EAST	
EX ESSEX	1 days
04 EAST ANGLIA	
SF SUFFOLK	1 days
06 WEST MIDLANDS	
SH SHROPSHIRE	1 days
ST STAFFORDSHIRE	1 days
08 NORTH WEST	
GM GREATER MANCHESTER	1 days
09 NORTH	
TW TYNE & WEAR	1 days

Secondary Filtering selection:

Parameter: Gross floor area
 Actual Range: 400 to 1400 (units: sqm)
 Range Selected by User: 112 to 2384 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 21/11/15

Selected survey days:

Tuesday	1 days
Wednesday	1 days
Friday	4 days

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	5

Selected Location Sub Categories:

Industrial Zone	1
Residential Zone	3
No Sub Category	2

Secondary Filtering selection:Use Class:

A4 6 days

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days

Population within 5 miles:

5,001 to 25,000	2 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	2 days

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days
2.1 to 2.5	1 days

Travel Plan:

No	6 days
----	--------

PTAL Rating:

No PTAL Present	6 days
-----------------	--------

LIST OF SITES relevant to selection parameters

1	EX-06-C-02	HARVESTER		ESSEX
	LONDON ROAD			
	STANWAY			
	COLCHESTER			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:	450 sqm		
	Survey date: FRIDAY	08/11/13		Survey Type: MANUAL
2	GM-06-C-04	HUNGRY HORSE		GREATER MANCHESTER
	HELSMAN LANE			
	ROCHDALE			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:	525 sqm		
	Survey date: TUESDAY	20/10/15		Survey Type: MANUAL
3	SF-06-C-02	PUB/RESTAURANT		SUFFOLK
	CLIFF ROAD			
	IPSWICH			
	Suburban Area (PPS6 Out of Centre)			
	Industrial Zone			
	Total Gross floor area:	875 sqm		
	Survey date: FRIDAY	18/09/15		Survey Type: MANUAL
4	SH-06-C-02	HUNGRY HORSE		SHROPSHIRE
	WELSHPOOL ROAD			
	SHELTON			
	SHREWSBURY			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:	1400 sqm		
	Survey date: FRIDAY	26/06/09		Survey Type: MANUAL
5	ST-06-C-01	HARVESTER		STAFFORDSHIRE
	STONE ROAD			
	TRENTAM			
	STOKE-ON-TRENT			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:	720 sqm		
	Survey date: WEDNESDAY	23/10/13		Survey Type: MANUAL
6	TW-06-C-01	PUB/RESTAURANT		TYNE & WEAR
	WHICKHAM HIGHWAY			
	GATESHEAD			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:	400 sqm		
	Survey date: FRIDAY	04/10/13		Survey Type: MANUAL

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT

VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	6	728	0.458	6	728	0.458	6	728	0.916
11:00 - 12:00	6	728	1.304	6	728	0.595	6	728	1.899
12:00 - 13:00	6	728	2.723	6	728	1.098	6	728	3.821
13:00 - 14:00	6	728	2.105	6	728	1.762	6	728	3.867
14:00 - 15:00	6	728	0.915	6	728	2.563	6	728	3.478
15:00 - 16:00	6	728	1.213	6	728	1.076	6	728	2.289
16:00 - 17:00	6	728	2.334	6	728	1.076	6	728	3.410
17:00 - 18:00	6	728	3.410	6	728	2.105	6	728	5.515
18:00 - 19:00	6	728	3.455	6	728	2.906	6	728	6.361
19:00 - 20:00	6	728	3.021	6	728	3.410	6	728	6.431
20:00 - 21:00	6	728	1.991	6	728	2.815	6	728	4.806
21:00 - 22:00	6	728	1.236	6	728	2.471	6	728	3.707
22:00 - 23:00	6	728	0.847	6	728	1.991	6	728	2.838
23:00 - 24:00	6	728	0.320	6	728	1.007	6	728	1.327
Total Rates:			25.332			25.333			50.665

Parameter summary

Trip rate parameter range selected: 400 - 1400 (units: sqm)
 Survey date range: 01/01/09 - 21/11/15
 Number of weekdays (Monday-Friday): 6
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
 Category : D - FAST FOOD - DRIVE THROUGH

VEHICLESSelected regions and areas:

02	SOUTH EAST	
	SO SLOUGH	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
10	WALES	
	CO CONWY	1 days
11	SCOTLAND	
	FI FIFE	1 days

Secondary Filtering selection:

Parameter: Gross floor area
 Actual Range: 275 to 480 (units: sqm)
 Range Selected by User: 182 to 800 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 22/03/16

Selected survey days:

Tuesday	1 days
Wednesday	2 days
Friday	1 days

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	3

Selected Location Sub Categories:

Development Zone	1
Residential Zone	2
Out of Town	1

Secondary Filtering selection:Use Class:

A3	2 days
A5	2 days

Population within 1 mile:

5,001 to 10,000	3 days
20,001 to 25,000	1 days

APPENDIX 10.3
DRIVE-THRU
RESTAURANT

Secondary Filtering selection (Cont.):Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	3 days

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	3 days

Travel Plan:

No	4 days
----	--------

PTAL Rating:

No PTAL Present	4 days
-----------------	--------

LIST OF SITES relevant to selection parameters

1	CA-06-D-01	MCDONALDS	CAMBRIDGESHIRE
	NEWMARKET ROAD		
	CAMBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	450 sqm	
	Survey date: WEDNESDAY	19/10/11	Survey Type: MANUAL
2	CO-06-D-01	MCDONALD'S	CONWY
	RHUDDLAN ROAD		
	ABERGELE		
	Edge of Town		
	Out of Town		
	Total Gross floor area:	410 sqm	
	Survey date: FRIDAY	21/10/11	Survey Type: MANUAL
3	FI-06-D-02	KFC	FIFE
	WHIMBREL PLACE		
	HALBEATH		
	DUNFERMLINE		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	275 sqm	
	Survey date: TUESDAY	22/03/16	Survey Type: MANUAL
4	SO-06-D-01	MCDONALD'S	SLOUGH
	WINDSOR ROAD		
	SLOUGH		
	Edge of Town		
	Residential Zone		
	Total Gross floor area:	480 sqm	
	Survey date: WEDNESDAY	21/11/12	Survey Type: MANUAL

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH

VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	480	0.417	1	480	0.000	1	480	0.417
06:00 - 07:00	3	447	2.761	3	447	2.164	3	447	4.925
07:00 - 08:00	3	447	6.866	3	447	5.522	3	447	12.388
08:00 - 09:00	3	447	9.328	3	447	8.657	3	447	17.985
09:00 - 10:00	3	447	7.910	3	447	8.060	3	447	15.970
10:00 - 11:00	4	404	6.873	4	404	7.368	4	404	14.241
11:00 - 12:00	4	404	7.864	4	404	7.554	4	404	15.418
12:00 - 13:00	4	404	12.755	4	404	10.898	4	404	23.653
13:00 - 14:00	4	404	11.455	4	404	12.260	4	404	23.715
14:00 - 15:00	4	404	8.235	4	404	10.279	4	404	18.514
15:00 - 16:00	4	404	8.793	4	404	7.864	4	404	16.657
16:00 - 17:00	4	404	10.464	4	404	10.464	4	404	20.928
17:00 - 18:00	4	404	9.598	4	404	9.164	4	404	18.762
18:00 - 19:00	4	404	9.907	4	404	9.845	4	404	19.752
19:00 - 20:00	4	404	9.040	4	404	9.474	4	404	18.514
20:00 - 21:00	4	404	4.830	4	404	5.820	4	404	10.650
21:00 - 22:00	4	404	4.149	4	404	4.334	4	404	8.483
22:00 - 23:00	3	388	2.661	3	388	3.348	3	388	6.009
23:00 - 24:00	1	480	0.000	1	480	0.417	1	480	0.417
Total Rates:			133.906				133.492	267.398	

Parameter summary

Trip rate parameter range selected: 275 - 480 (units: sqm)
 Survey date range: 01/01/09 - 22/03/16
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : K - FITNESS CLUB (PRIVATE)

VEHICLES

Selected regions and areas:

07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days
10	WALES	
	PS POWYS	1 days

Secondary Filtering selection:

Parameter: Gross floor area
Actual Range: 404 to 950 (units: sqm)
Range Selected by User: 404 to 2000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 27/09/16

Selected survey days:

Monday	1 days
Tuesday	2 days

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town	3
--------------	---

Selected Location Sub Categories:

Industrial Zone	1
Residential Zone	1
No Sub Category	1

Secondary Filtering selection:

Use Class:

D2	3 days
----	--------

Population within 1 mile:

5,001 to 10,000	3 days
-----------------	--------

Population within 5 miles:

5,001 to 25,000	3 days
-----------------	--------

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	2 days

OFF-LINE VERSION adl armstrong way yate

Licence No: 733701

Secondary Filtering selection (Cont.):

Travel Plan:

No 3 days

PTAL Rating:

No PTAL Present 3 days

LIST OF SITES relevant to selection parameters

1	CB-07-K-01	FITNESS CLUB		CUMBRIA
		COWPER ROAD		
		GILWILLY IND. ESTATE		
		PENRITH		
		Edge of Town		
		Industrial Zone		
		Total Gross floor area:	650 sqm	
		Survey date: TUESDAY	10/06/14	Survey Type: MANUAL
2	NY-07-K-01	FITNESS CLUB		NORTH YORKSHIRE
		RIVER VIEW ROAD		
		RIPON		
		Edge of Town		
		No Sub Category		
		Total Gross floor area:	404 sqm	
		Survey date: TUESDAY	27/09/16	Survey Type: MANUAL
3	PS-07-K-01	SPORTS CENTRE		POWYS
		BROOK STREET		
		WELSHPOOL		
		Edge of Town		
		Residential Zone		
		Total Gross floor area:	950 sqm	
		Survey date: MONDAY	11/05/15	Survey Type: MANUAL

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

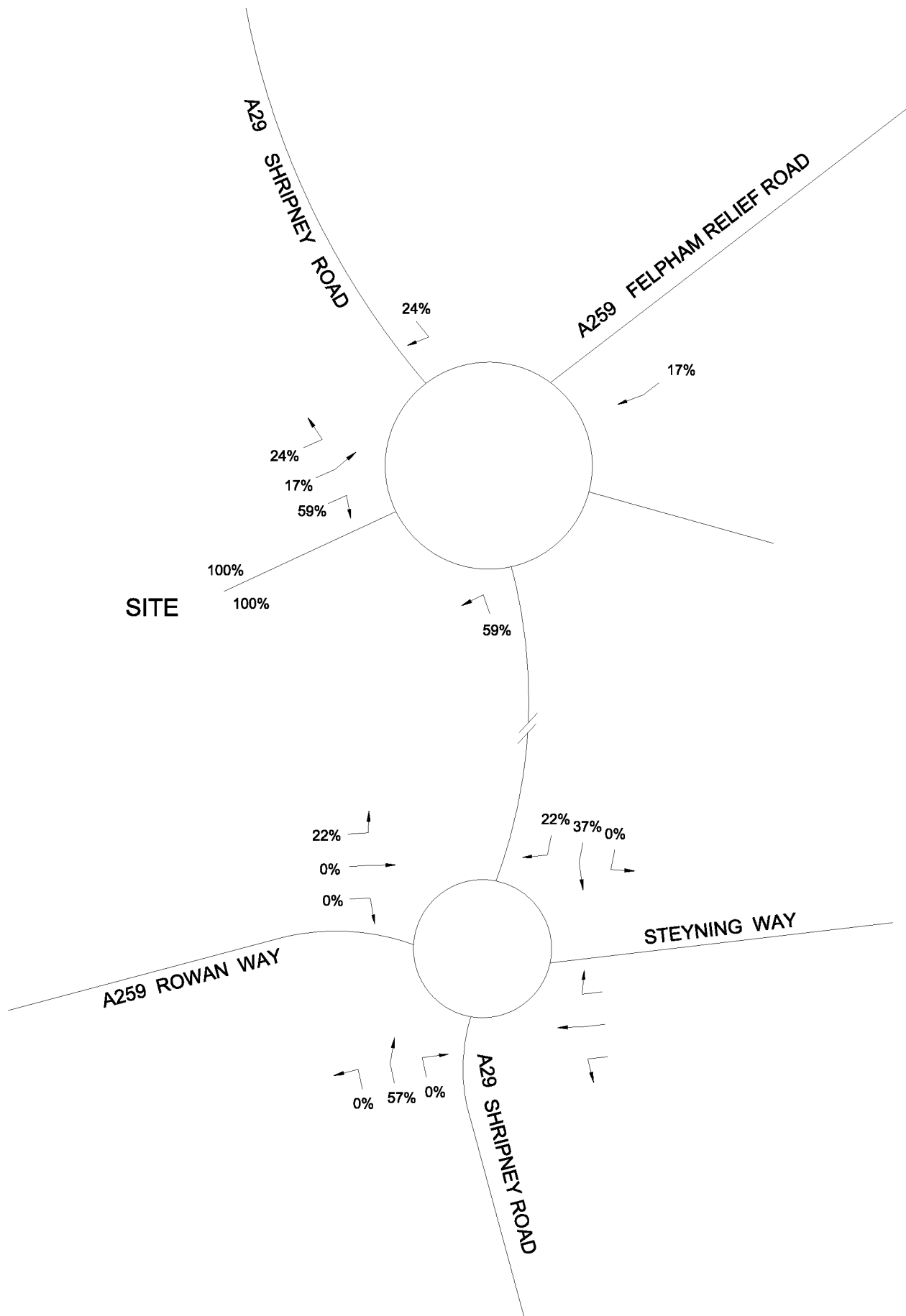
VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	3	668	1.148	3	668	0.100	3	668	1.248
07:00 - 08:00	3	668	0.549	3	668	0.998	3	668	1.547
08:00 - 09:00	3	668	0.399	3	668	0.599	3	668	0.998
09:00 - 10:00	3	668	0.948	3	668	0.449	3	668	1.397
10:00 - 11:00	3	668	0.649	3	668	0.998	3	668	1.647
11:00 - 12:00	3	668	0.250	3	668	0.349	3	668	0.599
12:00 - 13:00	3	668	0.449	3	668	0.299	3	668	0.748
13:00 - 14:00	3	668	0.699	3	668	0.649	3	668	1.348
14:00 - 15:00	3	668	0.499	3	668	0.499	3	668	0.998
15:00 - 16:00	3	668	0.599	3	668	0.399	3	668	0.998
16:00 - 17:00	3	668	0.898	3	668	0.848	3	668	1.746
17:00 - 18:00	3	668	1.796	3	668	0.798	3	668	2.594
18:00 - 19:00	3	668	1.297	3	668	1.447	3	668	2.744
19:00 - 20:00	3	668	0.948	3	668	1.747	3	668	2.695
20:00 - 21:00	3	668	0.349	3	668	0.948	3	668	1.297
21:00 - 22:00	3	668	0.000	3	668	0.399	3	668	0.399
22:00 - 23:00	1	404	0.000	1	404	0.000	1	404	0.000
23:00 - 24:00									
Total Rates:			11.477				11.526	23.003	

Parameter summary

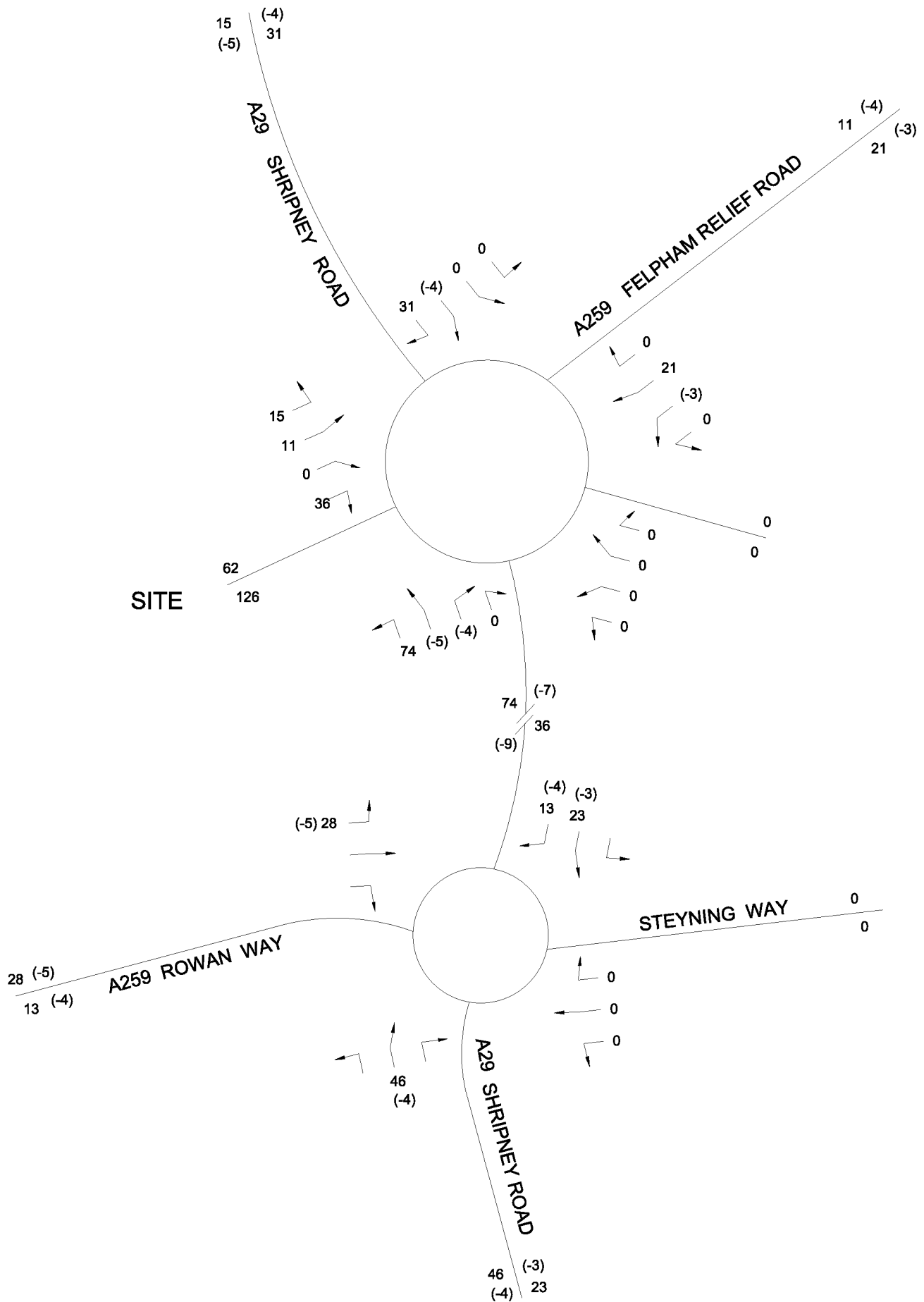
Trip rate parameter range selected: 404 - 950 (units: sqm)
 Survey date range: 01/01/09 - 27/09/16
 Number of weekdays (Monday-Friday): 3
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

AGREED PROPOSED TRAFFIC DISTRIBUTION



**GENERATED FLOWS ON SITE ACCESS AND A29/ROWAN WAY
ROUNDBOUT**

12.1	AM Peak Hour
12.2	PM Peak Hour



(-X) PASS-BY/
DIVERTED TRIPS



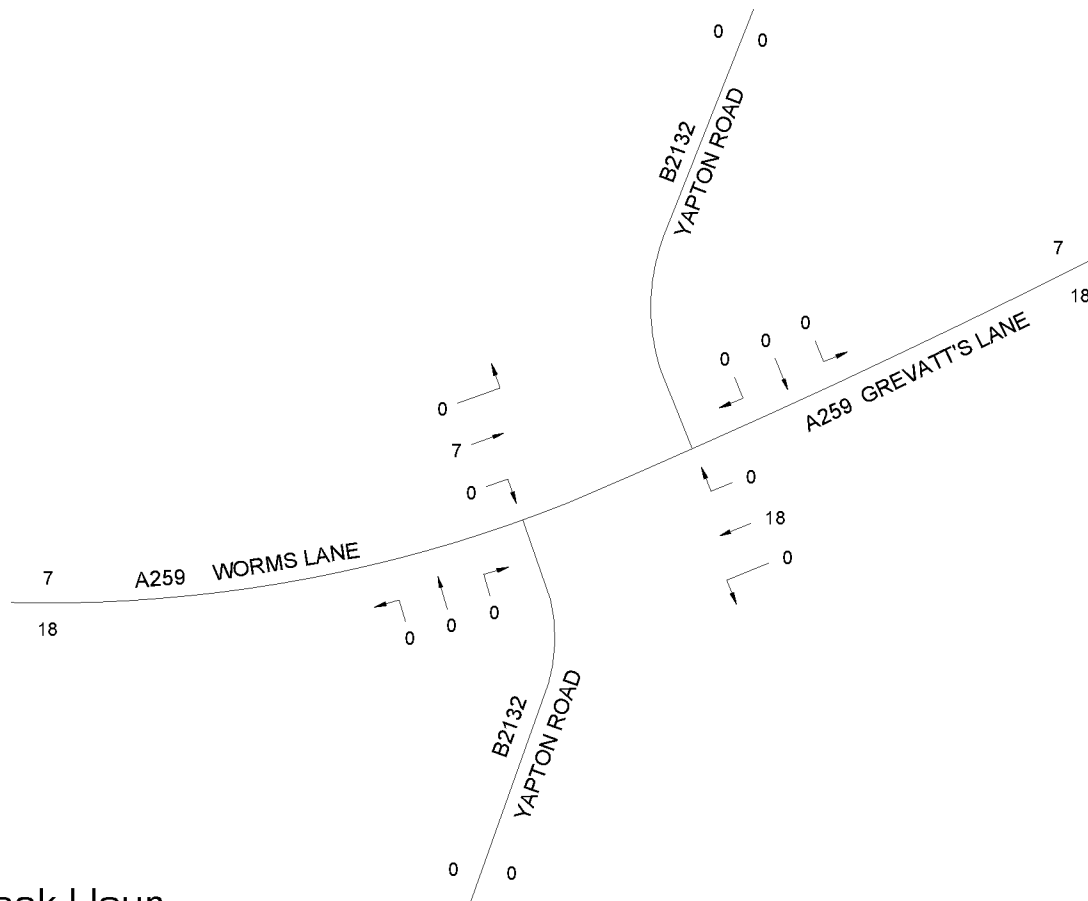
Title

GENERATED TRAFFIC
AM PEAK

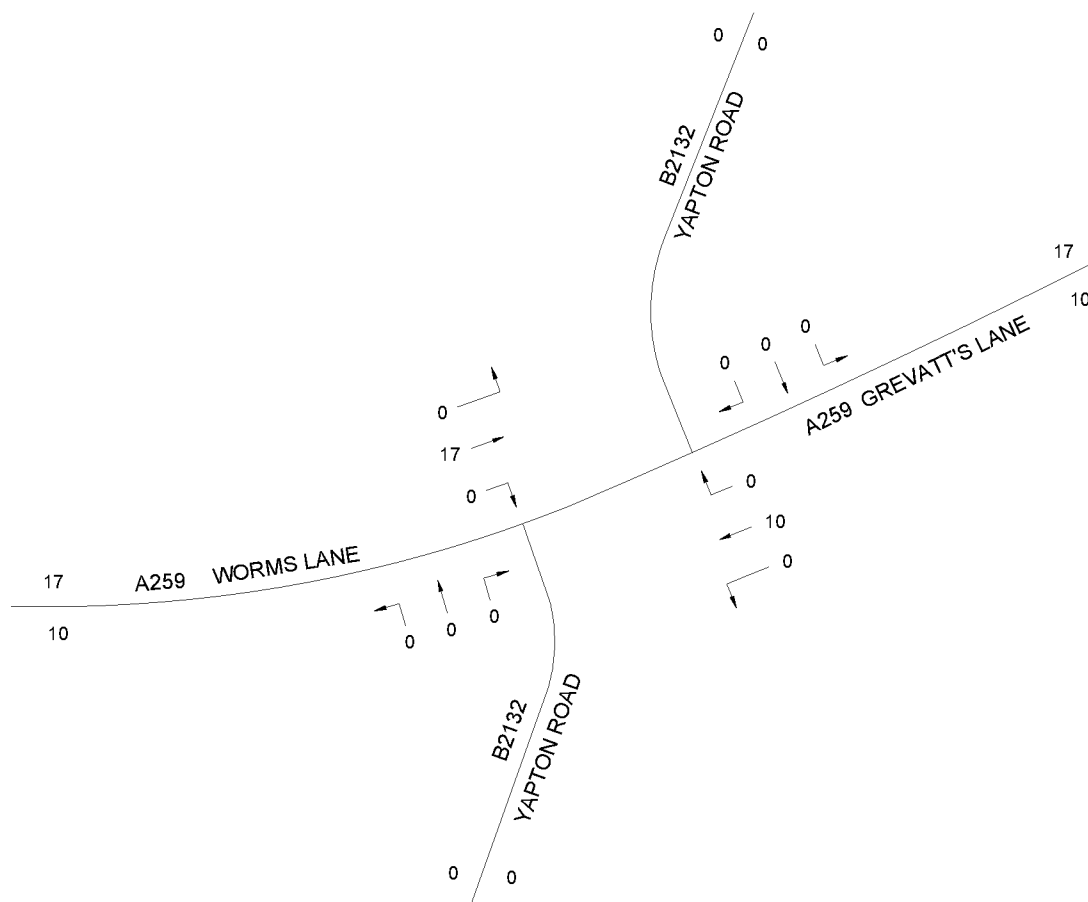
Scale

APPENDIX 12.1

GENERATED FLOWS ON A259/B132 JUNCTION

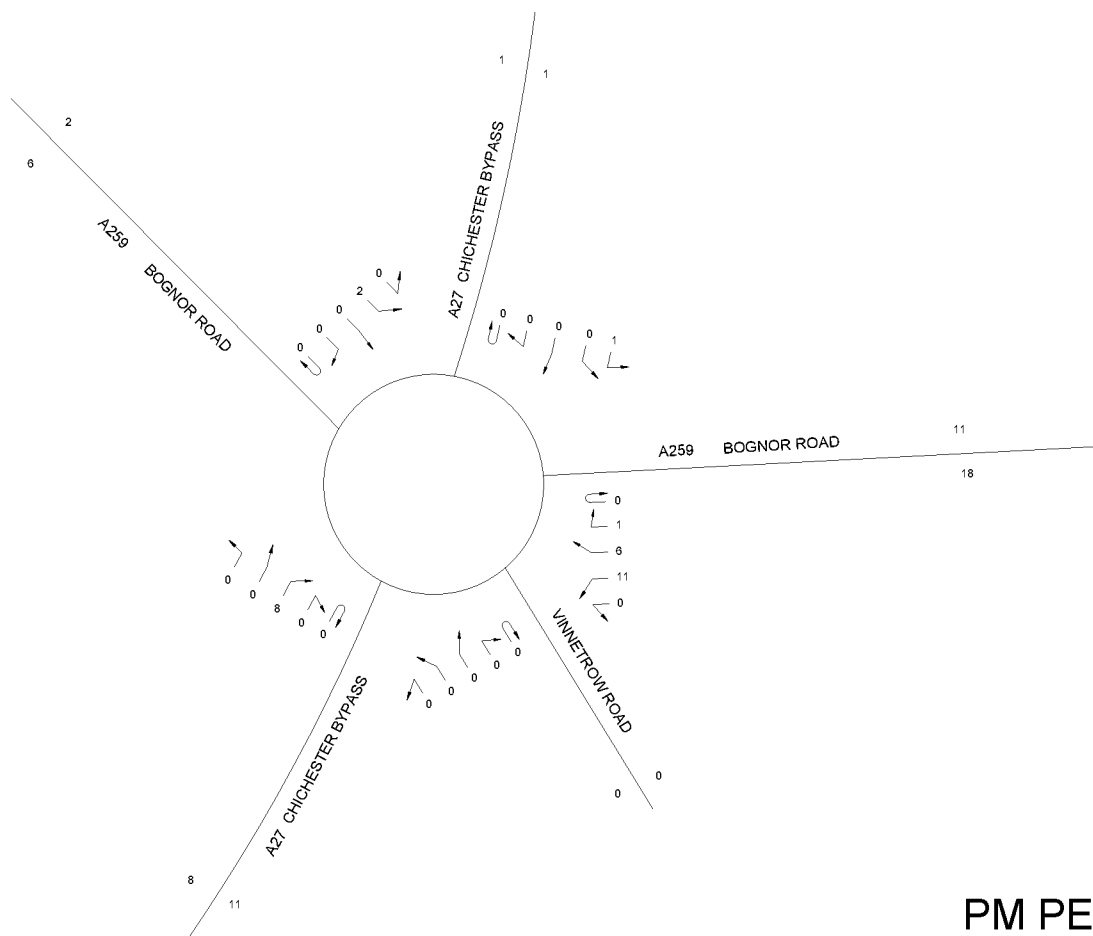
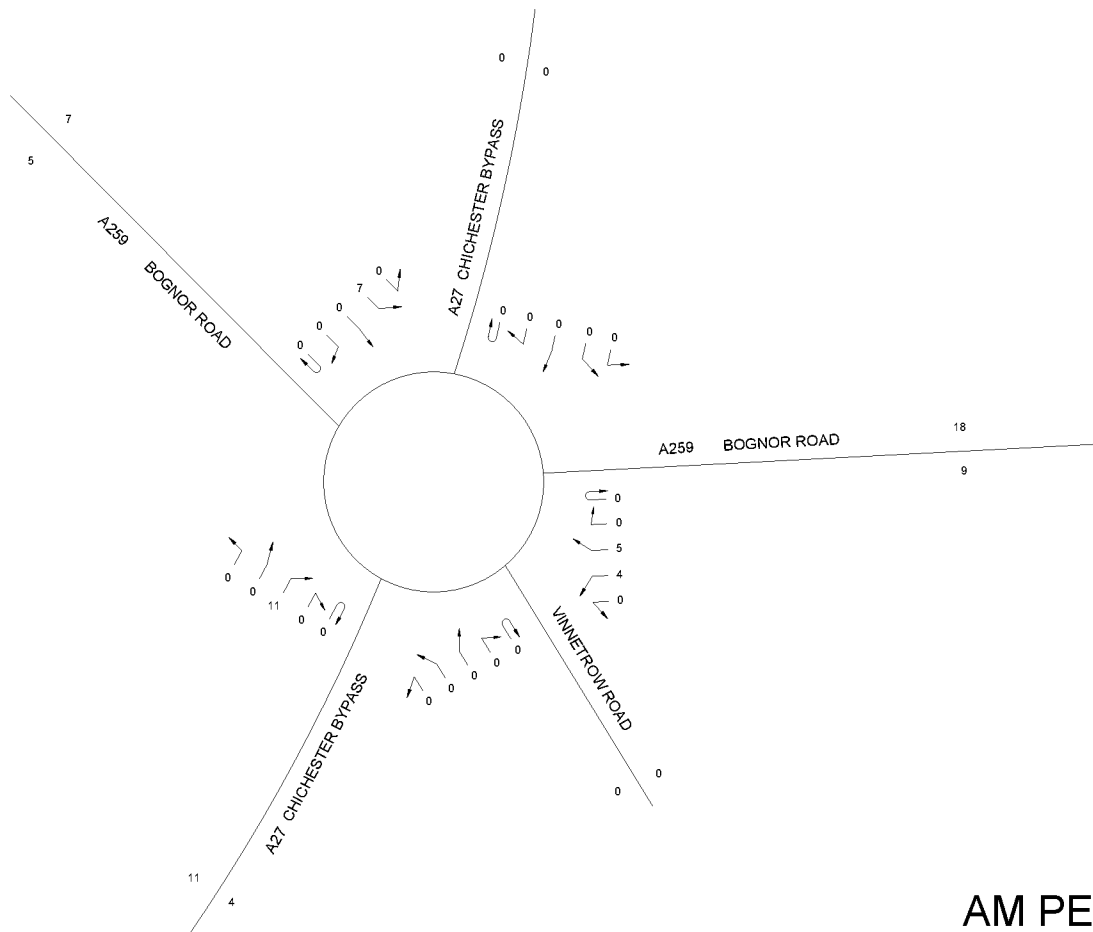


AM Peak Hour



PM Peak Hour

GENERATED FLOWS ON A25/A259 ROUNDABOUT



Title		GENERATED FLOWS A27 / A259 ROUNDABOUT
Scale		APPENDIX 14.0

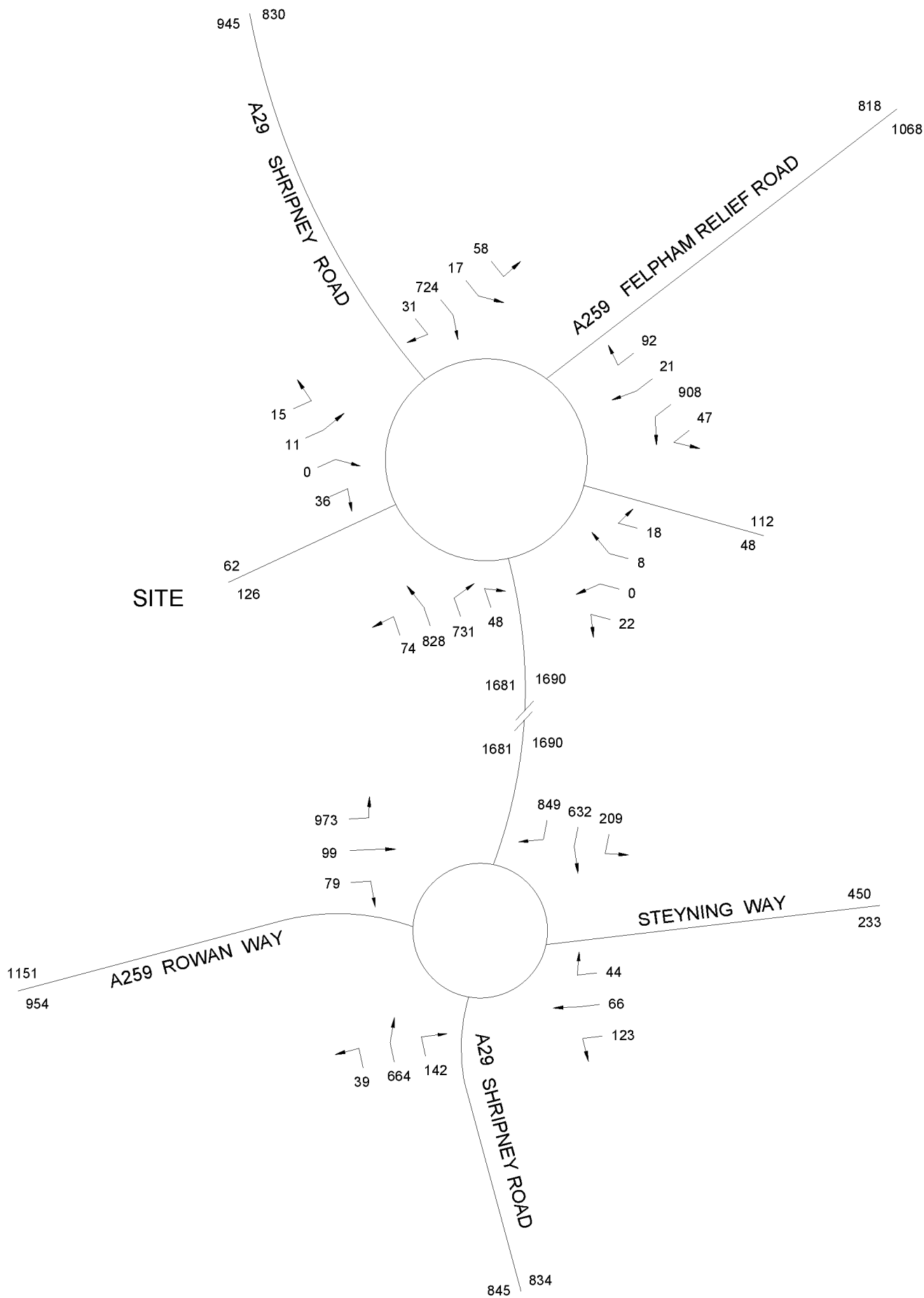
**2031 REFERENCE + DEVELOPMENT FLOWS: SITE ACCESS
ROUNDAABOUT AND A29/A259 ROWAN WAY ROUNDAABOUT**

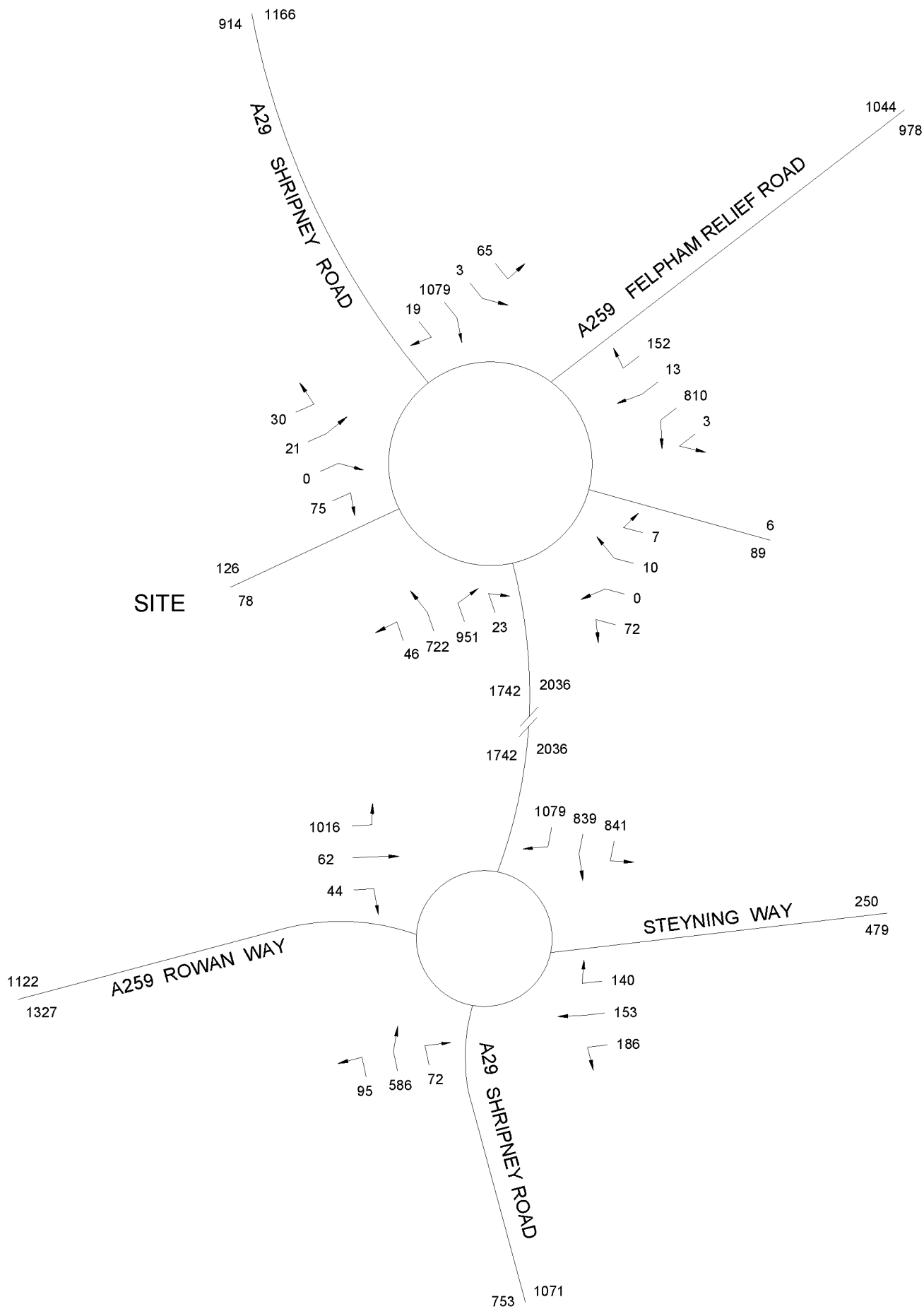
15.1

AM Peak Hour

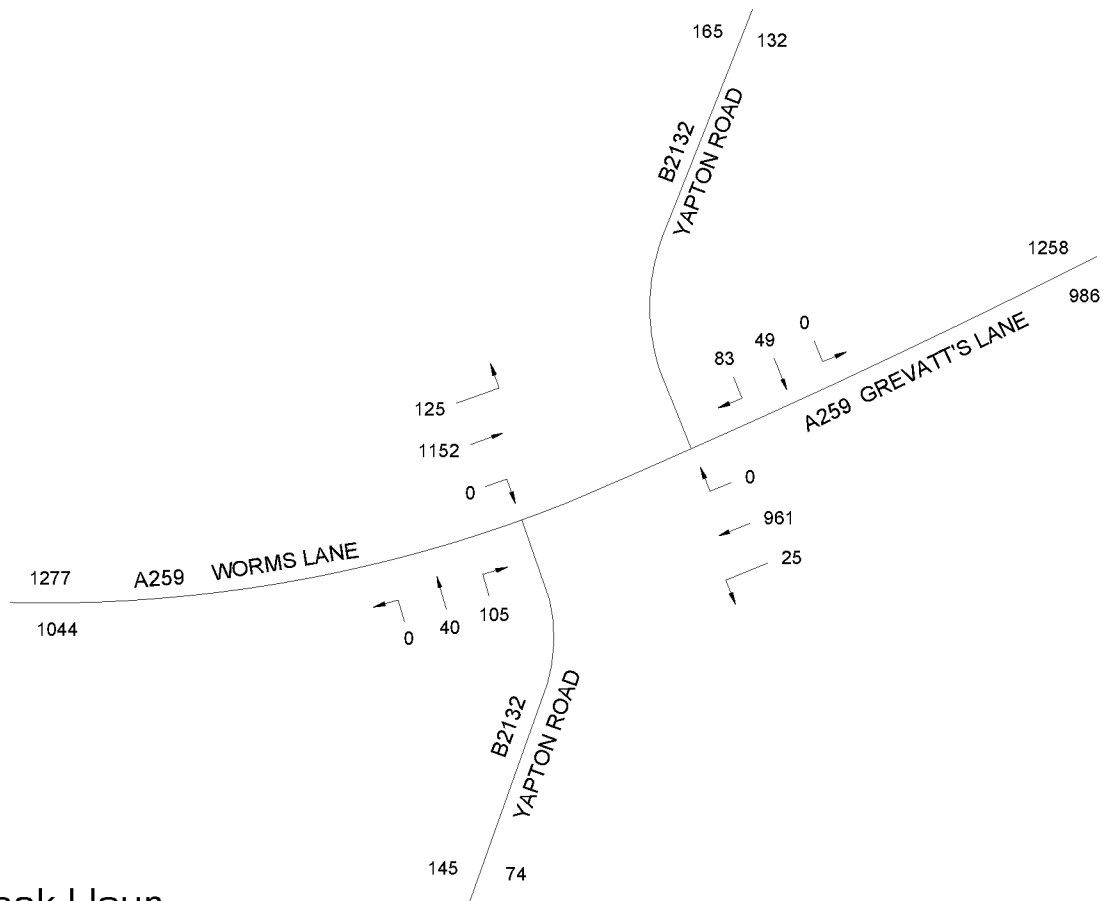
15.2

PM Peak Hour

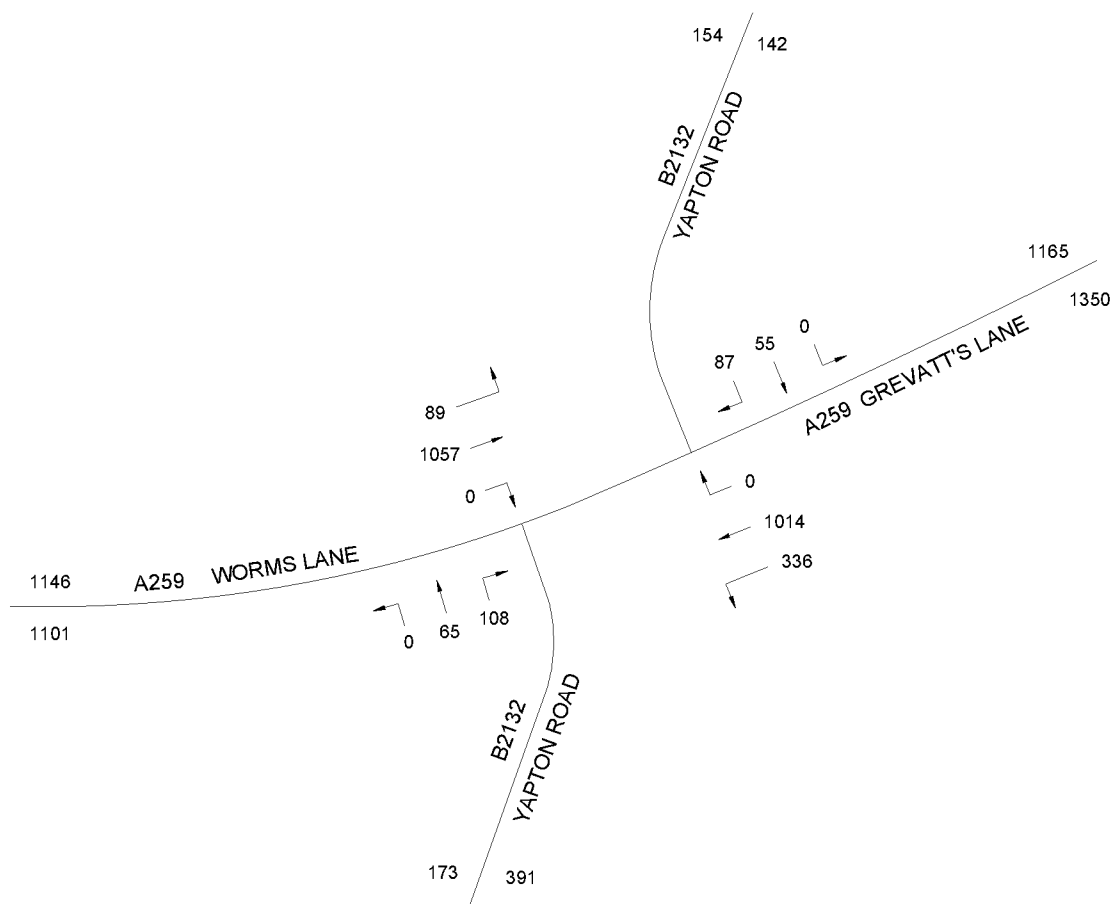




2031 REFERENCE + DEVELOPMENT FLOWS: A259/B2132 JUNCTION



AM Peak Hour



PM Peak Hour

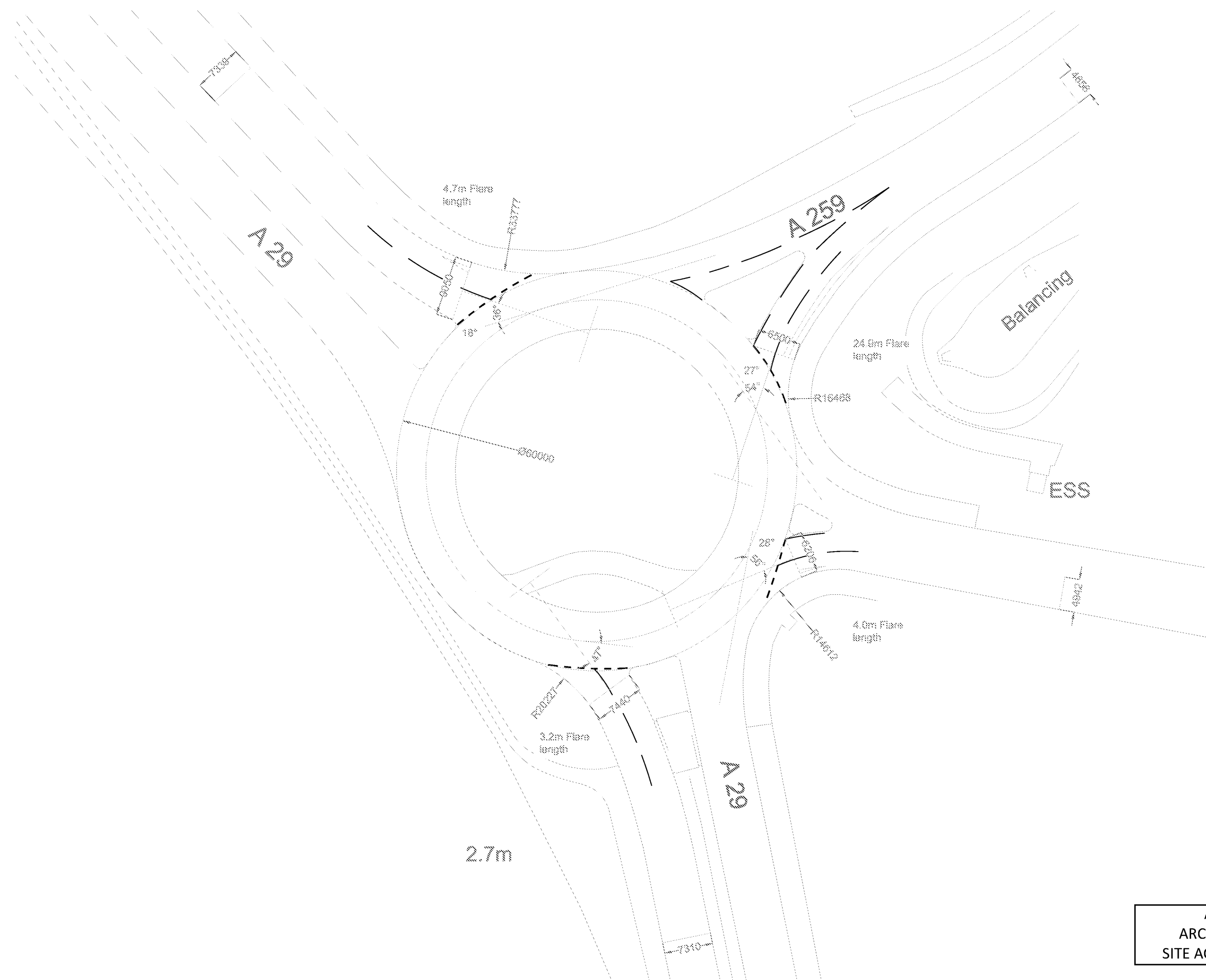
ARCADY ASSESSMENT: SITE ACCESS ROUNDABOUT

17.1

Geometry Plan

17.2

ARCADY Outputs



APPENDIX 17.1
ARCADY ASSESSMENT:
SITE ACCESS ROUNDABOUT

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 [J]

© Copyright TRL Limited, 2017

For sales and distribution information, program advice and maintenance, contact TRL:

Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

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: Site Access Roundabout.j9

Path: \\SVR-SBS-ADL\\Traffic\\3500-3599\\3503 Bognor Regis\\Modelling

Report generation date: 01/08/2017 15:10:43

- » 2031 Reference, AM
- » 2031 Reference, PM
- » 2031 Reference + total, AM
- » 2031 Reference + total, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Reference								
1 - A29 (N)	0.8	3.27	0.45	A	2.2	6.29	0.69	A
2 - A259 Felpham Relief Road	5.4	17.67	0.85	C	9.8	35.55	0.93	E
3 - Oldlands Farm Access	0.1	6.38	0.09	A	0.3	10.88	0.23	B
4 - A29 (S)	6.7	14.12	0.66	B	12.9	26.26	0.94	C
5 - Site Access	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2031 Reference + total								
1 - A29 (N)	0.9	3.47	0.47	A	2.6	7.40	0.73	A
2 - A259 Felpham Relief Road	7.5	24.39	0.89	C	18.7	64.14	0.98	F
3 - Oldlands Farm Access	0.1	6.97	0.09	A	0.3	12.92	0.26	B
4 - A29 (S)	11.0	22.83	0.93	C	19.5	38.33	0.97	E
5 - Site Access	0.2	12.18	0.19	B	0.9	22.90	0.47	C

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	25/05/2017
Version	
Status	(new file)
Identifier	
Client	
Job number	
Enumerator	ADLUKJunction
Description	

APPENDIX 17.2
ARCADY OUTPUTS

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	PCU	PCU	perHour	s	-Min	perMin
---	-----	-----	-----	---------	---	------	--------

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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	Relationship type	Relationship
D1	2031 Reference	AM	ONE HOUR	08:00	09:30	15	✓		
D2	2031 Reference	PM	ONE HOUR	17:00	18:30	15	✓		
D3	Development	AM	ONE HOUR	08:00	09:30	15			
D4	Development	PM	ONE HOUR	17:00	18:30	15			
D5	2031 Reference + total	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1+D3
D6	2031 Reference + total	PM	ONE HOUR	17:00	18:30	15	✓	Simple	D2+D4

Analysis Set Details

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

2031 Reference, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	12.60	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29 (N)	
2	A259 Felpham Relief Road	
3	Oldlands Farm Access	
4	A29 (S)	
5	Site Access	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A29 (N)	7.40	9.10	4.7	33.8	60.0	18.0	
2 - A259 Felpham Relief Road	4.70	6.50	25.0	16.5	60.0	27.0	
3 - Oldlands Farm Access	4.90	6.20	4.0	14.6	60.0	28.0	
4 - A29 (S)	7.30	7.40	3.2	20.3	60.0	47.0	

5 - Site Access	3.50	4.50	7.8	30.0	60.0	31.0	
-----------------	------	------	-----	------	------	------	--

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A29 (N)	0.735	2634
2 - A259 Felpham Relief Road	0.586	1867
3 - Oldlands Farm Access	0.547	1659
4 - A29 (S)	0.613	2109
5 - Site Access	0.490	1291

The slope and intercept shown above include any corrections and adjustments.

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	2031 Reference	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Scaling Factor (%)
1 - A29 (N)		ONE HOUR	✓	803	100.000
2 - A259 Felpham Relief Road		ONE HOUR	✓	1050	100.000
3 - Oldlands Farm Access		ONE HOUR	✓	48	100.000
4 - A29 (S)		ONE HOUR	✓	1616	100.000
5 - Site Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1 - A29 (N)	2 - A259 Felpham Relief Road	3 - Oldlands Farm Access	4 - A29 (S)	5 - Site Access
	1 - A29 (N)	0	58	17	728	0
	2 - A259 Felpham Relief Road	92	0	47	911	0
	3 - Oldlands Farm Access	8	18	0	22	0
	4 - A29 (S)	833	735	48	0	0
	5 - Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - A29 (N)	2 - A259 Felpham Relief Road	3 - Oldlands Farm Access	4 - A29 (S)	5 - Site Access
	1 - A29 (N)	0	0	0	0	0
	2 - A259 Felpham Relief Road	0	0	0	0	0
	3 - Oldlands Farm Access	0	0	0	0	0
	4 - A29 (S)	0	0	0	0	0
	5 - Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N)	0.45	3.27	0.8	A	737	1105
2 - A259 Felpham Relief Road	0.85	17.67	5.4	C	963	1445
3 - Oldlands Farm Access	0.09	6.38	0.1	A	44	66
4 - A29 (S)	0.88	14.12	6.7	B	1483	2224
5 - Site Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	605	151	600	2193	0.276	603	699	0.0	0.4	2.263	A
2 - A259 Felpham Relief Road	790	198	595	1518	0.521	786	608	0.0	1.1	4.888	A
3 - Oldlands Farm Access	36	9	1298	949	0.038	36	84	0.0	0.0	3.942	A
4 - A29 (S)	1217	304	88	2055	0.592	1211	1245	0.0	1.4	4.237	A
5 - Site Access	0	0	1299	655	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	722	180	718	2106	0.343	721	836	0.4	0.5	2.598	A
2 - A259 Felpham Relief Road	944	236	712	1450	0.651	941	727	1.1	1.8	7.029	A
3 - Oldlands Farm Access	43	11	1553	810	0.053	43	100	0.0	0.1	4.696	A
4 - A29 (S)	1453	363	106	2044	0.711	1449	1490	1.4	2.4	6.008	A
5 - Site Access	0	0	1555	530	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	884	221	874	1991	0.444	883	1018	0.5	0.8	3.245	A
2 - A259 Felpham Relief Road	1156	289	872	1357	0.652	1143	886	1.8	5.1	15.932	C
3 - Oldlands Farm Access	53	13	1892	624	0.085	53	122	0.1	0.1	6.299	A
4 - A29 (S)	1779	445	129	2030	0.878	1763	1816	2.4	6.4	12.795	B
5 - Site Access	0	0	1892	365	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	884	221	881	1986	0.445	884	1026	0.8	0.8	3.266	A
2 - A259 Felpham Relief Road	1156	289	873	1356	0.653	1155	892	5.1	5.4	17.669	C
3 - Oldlands Farm Access	53	13	1905	617	0.086	53	123	0.1	0.1	6.379	A
4 - A29 (S)	1779	445	130	2029	0.877	1778	1828	6.4	6.7	14.121	B
5 - Site Access	0	0	1908	357	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	722	180	728	2098	0.344	723	849	0.8	0.5	2.618	A
2 - A259 Felpham Relief Road	944	236	714	1449	0.652	958	737	5.4	1.9	7.539	A
3 - Oldlands Farm Access	43	11	1571	800	0.054	43	102	0.1	0.1	4.760	A
4 - A29 (S)	1453	363	107	2043	0.711	1469	1506	6.7	2.5	6.452	A
5 - Site Access	0	0	1577	519	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	605	151	605	2189	0.276	605	705	0.5	0.4	2.275	A
2 - A259 Felpham Relief Road	790	198	598	1517	0.521	794	613	1.9	1.1	4.998	A
3 - Oldlands Farm Access	36	9	1307	944	0.038	36	85	0.1	0.0	3.966	A
4 - A29 (S)	1217	304	89	2054	0.592	1221	1254	2.5	1.5	4.341	A
5 - Site Access	0	0	1310	650	0.000	0	0	0.0	0.0	0.000	A

2031 Reference, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	22.33	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2031 Reference	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Scaling Factor (%)
1 - A29 (N)		ONE HOUR	✓	1151	100.000
2 - A259 Felpham Relief Road		ONE HOUR	✓	968	100.000
3 - Oldlands Farm Access		ONE HOUR	✓	89	100.000
4 - A29 (S)		ONE HOUR	✓	1705	100.000
5 - Site Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1 - A29 (N)	2 - A259 Felpham Relief Road	3 - Oldlands Farm Access	4 - A29 (S)	5 - Site Access
	1 - A29 (N)	0	65	3	1083	0
	2 - A259 Felpham Relief Road	152	0	3	813	0
	3 - Oldlands Farm Access	10	7	0	72	0
	4 - A29 (S)	727	955	23	0	0
	5 - Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - A29 (N)	2 - A259 Felpham Relief Road	3 - Oldlands Farm Access	4 - A29 (S)	5 - Site Access
From	1 - A29 (N)	0	0	0	0	0
	2 - A259 Felpham Relief Road	0	0	0	0	0
	3 - Oldlands Farm Access	0	0	0	0	0
	4 - A29 (S)	0	0	0	0	0
	5 - Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N)	0.69	6.29	2.2	A	1056	1584
2 - A259 Felpham Relief Road	0.83	35.55	9.8	E	888	1332
3 - Oldlands Farm Access	0.23	10.88	0.3	B	82	123
4 - A29 (S)	0.94	26.26	12.9	D	1565	2347
5 - Site Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	867	217	738	2092	0.414	864	666	0.0	0.7	2.926	A
2 - A259 Felpham Relief Road	729	182	832	1380	0.528	724	769	0.0	1.1	5.458	A
3 - Oldlands Farm Access	67	17	1535	819	0.082	67	22	0.0	0.1	4.779	A
4 - A29 (S)	1284	321	126	2031	0.632	1277	1475	0.0	1.7	4.730	A
5 - Site Access	0	0	1403	604	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1035	259	882	1985	0.521	1033	796	0.7	1.1	3.774	A
2 - A259 Felpham Relief Road	870	218	995	1284	0.678	866	920	1.1	2.0	8.544	A
3 - Oldlands Farm Access	80	20	1836	655	0.122	80	26	0.1	0.1	6.260	A
4 - A29 (S)	1533	383	151	2016	0.760	1527	1764	1.7	3.1	7.278	A
5 - Site Access	0	0	1679	469	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1267	317	1066	1850	0.685	1263	961	1.1	2.1	6.086	A
2 - A259 Felpham Relief Road	1066	266	1217	1154	0.923	1040	1112	2.0	8.5	26.975	D
3 - Oldlands Farm Access	98	24	2225	442	0.222	97	31	0.1	0.3	10.437	B
4 - A29 (S)	1877	469	182	1998	0.916	1845	2141	3.1	11.2	20.264	C
5 - Site Access	0	0	2027	299	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

--	--	--	--	--	--	--	--	--	--	--	--

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1267	317	1081	1839	0.689	1267	975	2.1	2.2	6.286	A
2 - A259 Felpham Relief Road	1066	266	1221	1152	0.925	1060	1127	8.5	9.8	35.545	E
3 - Oldlands Farm Access	98	24	2249	429	0.229	98	32	0.3	0.3	10.885	B
4 - A29 (S)	1877	469	185	1995	0.941	1871	2162	11.2	12.9	26.265	D
5 - Site Access	0	0	2056	285	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1035	259	907	1967	0.526	1039	820	2.2	1.1	3.899	A
2 - A259 Felpham Relief Road	870	218	1001	1280	0.680	901	945	9.8	2.2	10.210	B
3 - Oldlands Farm Access	80	20	1876	633	0.126	81	27	0.3	0.1	6.525	A
4 - A29 (S)	1533	383	157	2013	0.761	1571	1799	12.9	3.3	8.809	A
5 - Site Access	0	0	1728	445	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	867	217	745	2086	0.415	868	673	1.1	0.7	2.961	A
2 - A259 Felpham Relief Road	729	182	837	1377	0.529	733	777	2.2	1.1	5.623	A
3 - Oldlands Farm Access	67	17	1548	813	0.082	67	22	0.1	0.1	4.831	A
4 - A29 (S)	1284	321	128	2031	0.632	1290	1487	3.3	1.7	4.899	A
5 - Site Access	0	0	1418	597	0.000	0	0	0.0	0.0	0.000	A

2031 Reference + total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	18.54	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	Relationship type	Relationship
D5	2031 Reference + total	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1+D3

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 (PCU/hr)	Scaling Factor (%)
1 - A29 (N)		ONE HOUR	✓	830	100.000
2 - A259 Felpham Relief Road		ONE HOUR	✓	1068	100.000
3 - Oldlands Farm Access		ONE HOUR	✓	48	100.000
4 - A29 (S)		ONE HOUR	✓	1681	100.000
5 - Site Access		ONE HOUR	✓	62	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (N)	2 - A259 Felpham Relief Road	3 - Oldlands Farm Access	4 - A29 (S)	5 - Site Access
From	1 - A29 (N)	0	58	17	724	31
	2 - A259 Felpham Relief Road	92	0	47	908	21
	3 - Oldlands Farm Access	8	18	0	22	0
	4 - A29 (S)	828	731	48	0	74
	5 - Site Access	15	11	0	36	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - A29 (N)	2 - A259 Felpham Relief Road	3 - Oldlands Farm Access	4 - A29 (S)	5 - Site Access
From	1 - A29 (N)	0	0	0	0	0
	2 - A259 Felpham Relief Road	0	0	0	0	0
	3 - Oldlands Farm Access	0	0	0	0	0
	4 - A29 (S)	0	0	0	0	0
	5 - Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N)	0.47	3.47	0.9	A	762	1142
2 - A259 Felpham Relief Road	0.89	24.39	7.5	C	980	1470
3 - Oldlands Farm Access	0.09	6.97	0.1	A	44	66
4 - A29 (S)	0.83	22.83	11.0	C	1543	2314
5 - Site Access	0.19	12.18	0.2	B	57	85

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	625	156	632	2169	0.288	623	706	0.0	0.4	2.327	A
2 - A259 Felpham Relief Road	804	201	643	1491	0.539	799	613	0.0	1.2	5.173	A
3 - Oldlands Farm Access	36	9	1358	916	0.039	36	84	0.0	0.0	4.090	A
4 - A29 (S)	1266	316	127	2031	0.623	1259	1267	0.0	1.6	4.625	A
5 - Site Access	47	12	1292	659	0.071	46	94	0.0	0.1	5.876	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	746	187	756	2078	0.359	746	845	0.4	0.6	2.700	A
2 - A259 Felpham Relief Road	960	240	769	1417	0.678	957	733	1.2	2.0	7.759	A
3 - Oldlands Farm Access	43	11	1625	770	0.056	43	100	0.0	0.1	4.950	A
4 - A29 (S)	1511	378	152	2016	0.750	1506	1516	1.6	2.9	6.993	A
5 - Site Access	56	14	1546	535	0.104	56	113	0.1	0.1	7.513	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	914	228	916	1961	0.466	913	1023	0.6	0.9	3.430	A
2 - A259 Felpham Relief Road	1176	294	940	1316	0.890	1157	888	2.0	6.9	20.462	C
3 - Oldlands Farm Access	53	13	1975	579	0.091	53	122	0.1	0.1	6.844	A
4 - A29 (S)	1851	463	185	1996	0.927	1823	1843	2.9	9.9	18.433	C
5 - Site Access	68	17	1871	375	0.182	68	137	0.1	0.2	11.692	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	914	228	927	1952	0.468	914	1036	0.9	0.9	3.465	A
2 - A259 Felpham Relief Road	1176	294	942	1315	0.894	1173	899	6.9	7.5	24.390	C
3 - Oldlands Farm Access	53	13	1993	569	0.093	53	123	0.1	0.1	6.972	A
4 - A29 (S)	1851	463	187	1994	0.928	1846	1858	9.9	11.0	22.830	C
5 - Site Access	68	17	1895	364	0.188	68	138	0.2	0.2	12.183	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	746	187	774	2065	0.361	747	865	0.9	0.6	2.736	A
2 - A259 Felpham Relief Road	960	240	772	1415	0.678	982	749	7.5	2.2	8.691	A
3 - Oldlands Farm Access	43	11	1651	756	0.057	43	103	0.1	0.1	5.051	A
4 - A29 (S)	1511	378	155	2014	0.750	1543	1539	11.0	3.1	8.130	A
5 - Site Access	56	14	1583	516	0.108	56	115	0.2	0.1	7.832	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	625	156	638	2165	0.289	626	713	0.6	0.4	2.341	A
2 - A259 Felpham Relief Road	804	201	645	1489	0.540	808	618	2.2	1.2	5.313	A
3 - Oldlands Farm Access	36	9	1369	910	0.040	36	85	0.1	0.0	4.118	A
4 - A29 (S)	1266	316	128	2030	0.623	1271	1276	3.1	1.7	4.779	A
5 - Site Access	47	12	1304	653	0.072	47	95	0.1	0.1	5.946	A

2031 Reference + total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
----------	------	---------------	-----------	--------------------	--------------

1	unfilled	Standard Roundabout	1,2,3,4,5	34.67	
---	----------	---------------------	-----------	-------	--

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	Relationship type	Relationship
D6	2031 Reference + total	PM	ONE HOUR	17:00	18:30	15	✓	Simple	D2+D4

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 (PCU/hr)	Scaling Factor (%)
1 - A29 (N)		ONE HOUR	✓	1166	100.000
2 - A259 Felpham Relief Road		ONE HOUR	✓	978	100.000
3 - Oldlands Farm Access		ONE HOUR	✓	89	100.000
4 - A29 (S)		ONE HOUR	✓	1742	100.000
5 - Site Access		ONE HOUR	✓	126	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1 - A29 (N)	2 - A259 Felpham Relief Road	3 - Oldlands Farm Access	4 - A29 (S)	5 - Site Access
	1 - A29 (N)	0	65	3	1079	19
	2 - A259 Felpham Relief Road	152	0	3	810	13
	3 - Oldlands Farm Access	10	7	0	72	0
	4 - A29 (S)	722	951	23	0	46
	5 - Site Access	30	21	0	75	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - A29 (N)	2 - A259 Felpham Relief Road	3 - Oldlands Farm Access	4 - A29 (S)	5 - Site Access
	1 - A29 (N)	0	0	0	0	0
	2 - A259 Felpham Relief Road	0	0	0	0	0
	3 - Oldlands Farm Access	0	0	0	0	0
	4 - A29 (S)	0	0	0	0	0
	5 - Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N)	0.73	7.40	2.6	A	1070	1605
2 - A259 Felpham Relief Road	0.98	84.14	18.7	F	897	1346
3 - Oldlands Farm Access	0.26	12.92	0.3	B	82	123
4 - A29 (S)	0.97	38.33	19.5	E	1598	2398

5 - Site Access	0.47	22.90	0.9	C	116	173
-----------------	------	-------	-----	---	-----	-----

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	878	219	806	2041	0.430	875	684	0.0	0.8	3.079	A
2 - A259 Felpham Relief Road	736	184	899	1340	0.549	731	782	0.0	1.2	5.867	A
3 - Oldlands Farm Access	67	17	1609	779	0.086	67	22	0.0	0.1	5.052	A
4 - A29 (S)	1311	328	150	2017	0.650	1304	1525	0.0	1.8	5.001	A
5 - Site Access	95	24	1396	608	0.156	94	58	0.0	0.2	6.998	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1048	262	964	1925	0.544	1046	818	0.8	1.2	4.089	A
2 - A259 Felpham Relief Road	879	220	1076	1237	0.711	875	935	1.2	2.4	9.808	A
3 - Oldlands Farm Access	80	20	1924	606	0.132	80	26	0.1	0.2	6.833	A
4 - A29 (S)	1566	392	180	1999	0.783	1559	1824	1.8	3.5	8.072	A
5 - Site Access	113	28	1669	474	0.239	113	70	0.2	0.3	9.953	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1284	321	1157	1783	0.720	1279	979	1.2	2.5	7.064	A
2 - A259 Felpham Relief Road	1077	269	1313	1098	0.981	1031	1123	2.4	13.8	39.885	E
3 - Oldlands Farm Access	98	24	2313	394	0.249	97	31	0.2	0.3	12.123	B
4 - A29 (S)	1918	479	213	1978	0.970	1870	2197	3.5	15.5	25.972	D
5 - Site Access	139	35	1999	312	0.444	137	84	0.3	0.8	20.308	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1284	321	1177	1769	0.726	1283	997	2.5	2.6	7.405	A
2 - A259 Felpham Relief Road	1077	269	1319	1094	0.984	1057	1141	13.8	18.7	64.144	F
3 - Oldlands Farm Access	98	24	2345	376	0.260	98	32	0.3	0.3	12.917	B
4 - A29 (S)	1918	479	218	1975	0.971	1902	2225	15.5	19.5	38.330	E
5 - Site Access	139	35	2035	295	0.470	138	85	0.8	0.9	22.902	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1048	262	1005	1895	0.553	1054	858	2.6	1.3	4.303	A
2 - A259 Felpham Relief Road	879	220	1085	1232	0.714	944	973	18.7	2.6	15.245	C
3 - Oldlands Farm Access	80	20	2002	564	0.142	81	27	0.3	0.2	7.460	A
4 - A29 (S)	1566	392	192	1991	0.786	1628	1891	19.5	3.9	11.512	B
5 - Site Access	113	28	1748	436	0.260	115	73	0.9	0.4	11.301	B

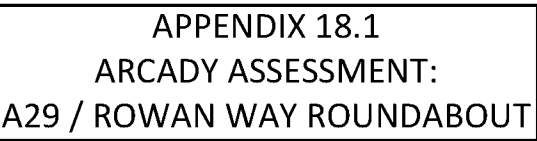
18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	878	219	816	2034	0.432	880	692	1.3	0.8	3.125	A
2 - A259 Felpham Relief Road	736	184	905	1337	0.551	742	791	2.6	1.2	6.100	A
3 - Oldlands Farm Access	67	17	1625	770	0.087	67	22	0.2	0.1	5.124	A

4 - A29 (S)	1311	328	152	2016	0.651	1319	1540	3.9	1.9	5.226	A
5 - Site Access	95	24	1413	600	0.158	96	59	0.4	0.2	7.149	A

ARCADY ASSESSMENT: A29/ROWAN WAY ROUNDABOUT

18.1	Geometry Plan
18.2	ARCADY Outputs



Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []
© Copyright TRL Limited, 2017

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: Rowan Way Roundabout.j9

Path: \\SVR-SBS-ADL\\Traffic\\3500-3599\\3503 Bognor Regis\\Modelling

Report generation date: 01/08/2017 15:31:45

- » 2031 Reference, AM
- » 2031 Reference, PM
- » 2031 Reference + total, AM
- » 2031 Reference + total, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2031 Reference						
1 - A29 (N)	5.1	10.41	0.84	16.1	28.40	0.88
2 - Steyning Way	0.5	6.87	0.33	7.2	12.79	0.81
3 - A29 (S)	1.0	3.95	0.49	1.1	4.95	0.52
4 - A259 Rowan Way	8.1	24.99	0.89	6.4	19.77	0.87
2031 Reference + total						
1 - A29 (N)	5.7	11.43	0.86	27.3	44.76	0.93
2 - Steyning Way	0.5	7.09	0.34	10.3	17.13	0.96
3 - A29 (S)	1.1	4.19	0.52	1.2	5.20	0.55
4 - A259 Rowan Way	11.6	35.06	0.94	7.4	22.88	0.89

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	25/05/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADLUKJunction
Description	

APPENDIX 18.1 ARCADY OUTPUTS

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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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	Relationship type	Relationship
D1	2031 Reference	AM	ONE HOUR	08:00	09:30	15	✓		
D2	2031 Reference	PM	ONE HOUR	17:00	18:30	15	✓		
D3	Development	AM	ONE HOUR	08:00	09:30	15			
D4	Development	PM	ONE HOUR	17:00	18:30	15			
D5	2031 Reference + total	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1 + D3
D6	2031 Reference + total	PM	ONE HOUR	17:00	18:30	15	✓	Simple	D2 + D4

Analysis Set Details

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

2031 Reference, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4	13.14	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29 (N)	
2	Steyning Way	
3	A29 (S)	
4	A259 Rowan Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A29 (N)	7.10	8.30	1.4	19.8	73.0	12.0	
2 - Steyning Way	3.53	6.60	7.7	38.1	73.0	6.0	
3 - A29 (S)	6.98	8.10	6.2	24.7	73.0	19.0	
4 - A259 Rowan Way	3.90	7.80	10.3	20.0	73.0	7.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A29 (N)	0.613	2388
2 - Steyning Way	0.508	1637
3 - A29 (S)	0.618	2441
4 - A259 Rowan Way	0.535	1853

The slope and intercept shown above include any corrections and adjustments.

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	2031 Reference	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Scaling Factor (%)
1 - A29 (N)		ONE HOUR	✓	1661	100.000
2 - Steyning Way		ONE HOUR	✓	233	100.000
3 - A29 (S)		ONE HOUR	✓	803	100.000
4 - A259 Rowan Way		ONE HOUR	✓	1128	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - A29 (N)	2 - Steyning Way	3 - A29 (S)	4 - A259 Rowan Way
	1 - A29 (N)	0	209	612	840
	2 - Steyning Way	44	0	123	66
	3 - A29 (S)	622	142	0	39
	4 - A259 Rowan Way	950	99	79	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - A29 (N)	2 - Steyning Way	3 - A29 (S)	4 - A259 Rowan Way
	1 - A29 (N)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29 (S)	0	0	0	0
	4 - A259 Rowan Way	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N)	0.84	10.41	5.1	B	1524	2286
2 - Steyning Way	0.33	6.87	0.5	A	214	321
3 - A29 (S)	0.49	3.95	1.0	A	737	1105
4 - A259 Rowan Way	0.90	24.99	8.1	C	1035	1553

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1250	313	240	2241	0.558	1245	1211	0.0	1.3	3.600	A
2 - Steyning Way	175	44	1148	1053	0.167	175	337	0.0	0.2	4.093	A
3 - A29 (S)	605	151	712	2001	0.302	603	610	0.0	0.4	2.572	A
4 - A259 Rowan Way	849	212	607	1528	0.556	844	709	0.0	1.2	5.226	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1493	373	287	2212	0.675	1490	1449	1.3	2.0	4.966	A
2 - Steyning Way	209	52	1373	939	0.223	209	404	0.2	0.3	4.931	A
3 - A29 (S)	722	180	852	1914	0.377	721	730	0.4	0.6	3.016	A
4 - A259 Rowan Way	1014	254	726	1464	0.692	1010	848	1.2	2.2	7.858	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1829	457	349	2174	0.841	1817	1760	2.0	5.0	9.784	A
2 - Steyning Way	257	64	1674	786	0.326	256	492	0.3	0.5	6.781	A
3 - A29 (S)	884	221	1040	1798	0.492	883	890	0.6	1.0	3.920	A
4 - A259 Rowan Way	1242	310	888	1377	0.902	1221	1034	2.2	7.4	20.750	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1829	457	352	2172	0.842	1828	1777	5.0	5.1	10.413	B
2 - Steyning Way	257	64	1685	780	0.329	257	495	0.5	0.5	6.871	A
3 - A29 (S)	884	221	1046	1795	0.493	884	896	1.0	1.0	3.953	A
4 - A259 Rowan Way	1242	310	890	1377	0.902	1239	1040	7.4	8.1	24.989	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1493	373	292	2209	0.676	1505	1474	5.1	2.1	5.200	A
2 - Steyning Way	209	52	1389	931	0.225	210	408	0.5	0.3	4.999	A
3 - A29 (S)	722	180	861	1909	0.378	723	738	1.0	0.6	3.039	A
4 - A259 Rowan Way	1014	254	728	1463	0.693	1037	856	8.1	2.3	8.887	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1250	313	242	2240	0.558	1254	1221	2.1	1.3	3.666	A
2 - Steyning Way	175	44	1156	1049	0.167	176	340	0.3	0.2	4.123	A
3 - A29 (S)	605	151	717	1998	0.303	605	615	0.6	0.4	2.588	A
4 - A259 Rowan Way	849	212	609	1527	0.556	853	713	2.3	1.3	5.377	A

2031 Reference, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4	24.91	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2031 Reference	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Scaling Factor (%)
1 - A29 (N)		ONE HOUR	✓	1968	100.000
2 - Steyning Way		ONE HOUR	✓	479	100.000
3 - A29 (S)		ONE HOUR	✓	728	100.000
4 - A259 Rowan Way		ONE HOUR	✓	1110	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - A29 (N)	2 - Steyning Way	3 - A29 (S)	4 - A259 Rowan Way
	1 - A29 (N)	0	116	797	1055
	2 - Steyning Way	140	0	186	153
	3 - A29 (S)	561	72	0	95
	4 - A259 Rowan Way	1004	62	44	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - A29 (N)	2 - Steyning Way	3 - A29 (S)	4 - A259 Rowan Way
	1 - A29 (N)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29 (S)	0	0	0	0
	4 - A259 Rowan Way	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N)	0.96	28.40	16.1	D	1806	2709
2 - Steyning Way	0.91	52.79	7.2	F	440	659
3 - A29 (S)	0.52	4.95	1.1	A	668	1002
4 - A259 Rowan Way	0.67	19.77	6.4	C	1019	1528

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1482	370	133	2306	0.643	1475	1277	0.0	1.8	4.295	A
2 - Steyning Way	361	90	1421	915	0.394	358	187	0.0	0.6	6.437	A
3 - A29 (S)	548	137	1009	1817	0.302	546	769	0.0	0.4	2.830	A
4 - A259 Rowan Way	836	209	580	1543	0.542	831	976	0.0	1.2	5.026	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1769	442	160	2290	0.773	1763	1528	1.8	3.3	6.756	A
2 - Steyning Way	431	108	1699	773	0.557	428	224	0.6	1.2	10.362	B
3 - A29 (S)	654	164	1207	1695	0.386	654	920	0.4	0.6	3.457	A
4 - A259 Rowan Way	998	249	694	1482	0.673	994	1167	1.2	2.0	7.338	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	2167	542	194	2269	0.955	2125	1857	3.3	13.7	20.858	D
2 - Steyning Way	527	132	2048	596	0.955	510	272	1.2	5.6	36.424	E
3 - A29 (S)	802	200	1451	1544	0.519	800	1107	0.6	1.1	4.826	A
4 - A259 Rowan Way	1222	306	844	1401	0.872	1206	1407	2.0	5.9	17.275	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	2167	542	196	2268	0.956	2157	1874	13.7	16.1	28.403	D
2 - Steyning Way	527	132	2078	580	0.959	521	275	5.6	7.2	52.767	F
3 - A29 (S)	802	200	1475	1529	0.524	801	1124	1.1	1.1	4.947	A
4 - A259 Rowan Way	1222	306	849	1398	0.974	1220	1427	5.9	6.4	19.767	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1769	442	162	2289	0.773	1819	1556	16.1	3.5	8.455	A
2 - Steyning Way	431	108	1752	746	0.577	454	229	7.2	1.4	13.253	B
3 - A29 (S)	654	164	1253	1666	0.393	656	953	1.1	0.7	3.569	A
4 - A259 Rowan Way	998	249	703	1476	0.676	1015	1206	6.4	2.1	8.073	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1482	370	134	2305	0.643	1488	1289	3.5	1.8	4.444	A
2 - Steyning Way	361	90	1434	908	0.397	364	189	1.4	0.7	6.647	A

3 - A29 (S)	548	137	1020	1810	0.303	549	777	0.7	0.4	2.857	A
4 - A259 Rowan Way	836	209	584	1541	0.542	839	986	2.1	1.2	5.161	A

2031 Reference + total, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4	16.55	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	Relationship type	Relationship
D5	2031 Reference + total	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1 + D3

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 (PCU/hr)	Scaling Factor (%)
1 - A29 (N)		ONE HOUR	✓	1690	100.000
2 - Steyning Way		ONE HOUR	✓	233	100.000
3 - A29 (S)		ONE HOUR	✓	845	100.000
4 - A259 Rowan Way		ONE HOUR	✓	1151	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - A29 (N)	2 - Steyning Way	3 - A29 (S)	4 - A259 Rowan Way
	1 - A29 (N)	0	209	632	849
	2 - Steyning Way	44	0	123	66
	3 - A29 (S)	664	142	0	39
	4 - A259 Rowan Way	973	99	79	0

Vehicle Mix

Heavy Vehicle Percentages

To				
	1 - A29 (N)	2 - Steyning Way	3 - A29 (S)	4 - A259 Rowan Way

From	1 - A29 (N)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29 (S)	0	0	0	0
	4 - A259 Rowan Way	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N)	0.88	11.43	5.7	B	1551	2326
2 - Steyning Way	0.34	7.09	0.5	A	214	321
3 - A29 (S)	0.52	4.19	1.1	A	775	1163
4 - A259 Rowan Way	0.94	35.06	11.6	E	1056	1584

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1272	318	240	2241	0.568	1267	1259	0.0	1.3	3.678	A
2 - Steyning Way	175	44	1170	1042	0.168	175	337	0.0	0.2	4.145	A
3 - A29 (S)	636	159	719	1996	0.319	634	625	0.0	0.5	2.639	A
4 - A259 Rowan Way	867	217	638	1511	0.573	861	715	0.0	1.3	5.494	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1519	380	287	2212	0.687	1516	1507	1.3	2.2	5.146	A
2 - Steyning Way	209	52	1399	926	0.226	209	404	0.2	0.3	5.021	A
3 - A29 (S)	760	190	860	1909	0.398	759	748	0.5	0.7	3.128	A
4 - A259 Rowan Way	1035	259	763	1444	0.716	1030	856	1.3	2.4	8.600	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1861	465	347	2175	0.858	1847	1824	2.2	5.5	10.592	B
2 - Steyning Way	257	64	1704	771	0.333	256	491	0.3	0.5	6.978	A
3 - A29 (S)	930	233	1049	1793	0.519	929	911	0.7	1.1	4.160	A
4 - A259 Rowan Way	1267	317	934	1353	0.937	1237	1043	2.4	9.9	26.279	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1861	465	351	2172	0.857	1860	1845	5.5	5.7	11.433	B
2 - Steyning Way	257	64	1716	764	0.336	257	495	0.5	0.5	7.087	A
3 - A29 (S)	930	233	1055	1788	0.520	930	917	1.1	1.1	4.194	A
4 - A259 Rowan Way	1267	317	936	1352	0.937	1261	1050	9.9	11.6	35.058	E

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1519	380	293	2208	0.688	1533	1543	5.7	2.2	5.441	A
2 - Steyning Way	209	52	1417	917	0.229	210	410	0.5	0.3	5.102	A

3 - A29 (S)	760	190	869	1903	0.399	761	758	1.1	0.7	3.158	A
4 - A259 Rowan Way	1035	259	766	1443	0.717	1070	865	11.6	2.6	10.542	B

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1272	318	242	2239	0.568	1276	1270	2.2	1.3	3.749	A
2 - Steyning Way	175	44	1178	1038	0.169	176	340	0.3	0.2	4.177	A
3 - A29 (S)	636	159	724	1993	0.319	637	630	0.7	0.5	2.655	A
4 - A259 Rowan Way	867	217	641	1510	0.574	872	720	2.6	1.4	5.682	A

2031 Reference + total, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4	35.48	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	Relationship type	Relationship
D6	2031 Reference + total	PM	ONE HOUR	17:00	18:30	15	✓	Simple	D2 + D4

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 (PCU/hr)	Scaling Factor (%)
1 - A29 (N)		ONE HOUR	✓	2036	100.000
2 - Steyning Way		ONE HOUR	✓	479	100.000
3 - A29 (S)		ONE HOUR	✓	753	100.000
4 - A259 Rowan Way		ONE HOUR	✓	1122	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - A29 (N)	2 - Steyning Way	3 - A29 (S)	4 - A259 Rowan Way
	1 - A29 (N)	0	116	841	1079
	2 - Steyning Way	140	0	186	153
	3 - A29 (S)	586	72	0	95

	4 - A259 Rowan Way	1016	62	44	0
--	--------------------	------	----	----	---

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A29 (N)	2 - Steyning Way	3 - A29 (S)	4 - A259 Rowan Way
From	1 - A29 (N)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29 (S)	0	0	0	0
	4 - A259 Rowan Way	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N)	0.99	44.78	27.3	E	1868	2802
2 - Steyning Way	0.96	73.13	10.3	F	440	659
3 - A29 (S)	0.55	5.20	1.2	A	691	1036
4 - A259 Rowan Way	0.89	22.88	7.4	C	1030	1544

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1533	383	133	2306	0.665	1525	1305	0.0	2.0	4.566	A
2 - Steyning Way	361	90	1471	889	0.406	358	187	0.0	0.7	6.744	A
3 - A29 (S)	567	142	1027	1806	0.314	565	802	0.0	0.5	2.898	A
4 - A259 Rowan Way	845	211	598	1533	0.551	840	994	0.0	1.2	5.161	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1830	458	160	2290	0.799	1823	1561	2.0	3.8	7.586	A
2 - Steyning Way	431	108	1758	743	0.580	428	224	0.7	1.3	11.331	B
3 - A29 (S)	677	169	1228	1682	0.402	676	959	0.5	0.7	3.575	A
4 - A259 Rowan Way	1009	252	716	1470	0.686	1005	1188	1.2	2.1	7.686	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	2242	560	194	2269	0.988	2175	1893	3.8	20.4	27.889	D
2 - Steyning Way	527	132	2099	570	0.926	504	270	1.3	7.1	44.797	E
3 - A29 (S)	829	207	1461	1538	0.539	827	1142	0.7	1.2	5.052	A
4 - A259 Rowan Way	1235	309	870	1387	0.891	1217	1418	2.1	6.8	19.327	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	2242	560	196	2268	0.989	2214	1912	20.4	27.3	44.758	E

2 - Steyning Way	527	132	2136	551	0.957	515	274	7.1	10.3	73.131	F
3 - A29 (S)	829	207	1488	1521	0.545	829	1163	1.2	1.2	5.200	A
4 - A259 Rowan Way	1235	309	875	1385	0.692	1233	1442	6.8	7.4	22.876	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1830	458	162	2288	0.800	1923	1596	27.3	4.2	12.252	B
2 - Steyning Way	431	108	1854	695	0.620	465	231	10.3	1.7	17.910	C
3 - A29 (S)	677	169	1304	1635	0.414	679	1015	1.2	0.7	3.773	A
4 - A259 Rowan Way	1009	252	729	1463	0.690	1029	1253	7.4	2.3	8.680	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N)	1533	383	134	2305	0.665	1542	1317	4.2	2.0	4.765	A
2 - Steyning Way	361	90	1487	881	0.409	365	189	1.7	0.7	7.025	A
3 - A29 (S)	567	142	1040	1798	0.315	568	812	0.7	0.5	2.930	A
4 - A259 Rowan Way	845	211	603	1530	0.552	849	1005	2.3	1.2	5.314	A