



# Transport Assessment

**Proposed Residential Development  
Land north of Hookhams Lane  
Salph End  
Bedford**

**Revision 0: August 2019  
Report Reference: 248-TA-01-0**



**Report Originator(s)**

Martin Andrews MEng (Hons) CEng MICE MCIHT

Director

martin.andrews@mac-ltd.co.uk

**Revision Record**

Revision	Date	Description	Written	Approved
0	28/08/19	Planning Issue	MJA	MJA

## Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Instructions .....	1
1.2	Site Location .....	1
1.3	Current Use and Description .....	2
1.4	Proposed Development.....	2
<b>2.0</b>	<b>Existing Conditions – Site Information .....</b>	<b>3</b>
2.1	Site Location .....	3
2.2	Permitted Use.....	3
2.3	Neighbouring Land Uses.....	3
2.4	Existing Access Arrangements.....	3
<b>3.0</b>	<b>Existing Conditions – Baseline Transport Data .....</b>	<b>4</b>
3.1	Walking and Cycling.....	4
3.2	Public Transport.....	5
3.3	Highway network.....	6
3.4	Accident Data .....	6
3.5	Accessibility to Education .....	6
3.6	Accessibility to Health .....	7
3.7	Accessibility to Retail and Leisure .....	7
3.8	Accessibility to Employment .....	7
3.9	Summary.....	7
<b>4.0</b>	<b>Policy Review .....</b>	<b>8</b>
4.1	Introduction.....	8
4.2	National Policy .....	8
4.3	National Planning Policy Framework.....	8
<b>5.0</b>	<b>Proposed Development .....</b>	<b>10</b>
5.1	Type and Scale .....	10
5.2	Access – all modes .....	10
5.3	Parking .....	10
5.4	Trip Generation .....	11
<b>6.0</b>	<b>Junction Impact Assessment.....</b>	<b>13</b>
6.1	Area of Assessment .....	13
6.2	Distribution.....	13
6.3	Assessment Year.....	13
6.4	Background Traffic.....	14

6.5	Committed Development .....	14
<b>7.0</b>	<b>Junction Analysis Results .....</b>	<b>15</b>
7.1	Introduction .....	15
7.2	A1: Site Access off Hookhams Lane .....	15
7.3	A2: Site Access off Ravensden Road .....	16
7.4	Junction 1: Hookhams Lane / Norse Road / Church Lane / Wentworth Drive .....	17
7.5	Junction 2: Wentworth Drive / Putnoe Lane .....	18
7.6	Junction 3: A4280 St Neots Road / A4280 Goldington Road / Norse Road .....	19
7.8	Junction 4: A421 / St Neots Road / A4280. ....	21
<b>8.0</b>	<b>Conclusion .....</b>	<b>23</b>
8.1	Site Location and Permitted Use .....	23
8.2	Existing Conditions .....	23
8.3	Proposed Development .....	23

## Appendices

<b>Appendix A</b> .....	<b>A</b>
Location Plan.....	A
MAC drawing no. 248-TA01.....	A
<b>Appendix B</b> .....	<b>B</b>
Topographical Survey .....	B
MSurv drawing no. 1215/2272/1, 2 and 3.....	B
<b>Appendix C</b> .....	<b>C</b>
Parameters Plan.....	C
RG+P drawing no. 40986 013C .....	C
<b>Appendix D</b> .....	<b>D</b>
Facilities Plan and Walking Distances .....	D
MAC drawing no. 248-TA02.....	D
<b>Appendix E</b> .....	<b>E</b>
Bus timetables and routes .....	E
<b>Appendix F</b> .....	<b>F</b>
Accident Data.....	F
<b>Appendix G</b> .....	<b>G</b>
Hookhams Lane Access.....	G
MAC drawing no. 248-TA11.....	G
<b>Appendix H</b> .....	<b>H</b>
Ravensden Road Access.....	H
MAC drawing no. 248-TA12.....	H
<b>Appendix I</b> .....	<b>I</b>
TRICS Data.....	I
<b>Appendix J</b> .....	<b>J</b>
Distribution .....	J
<b>Appendix K</b> .....	<b>K</b>
Vehicle Movement Diagrams.....	K
<b>Appendix L</b> .....	<b>L</b>
Traffic Count Data.....	L
<b>Appendix M</b> .....	<b>M</b>
A1 – Hookhams Lane Access: Analysis – Input and Results.....	M
<b>Appendix N</b> .....	<b>N</b>
A2 – Access to Ravensden Road: Analysis – Input and Results .....	N



<b>Appendix O</b> .....	<b>O</b>
J1 – Hookhams Lane / Norse Road / Church Lane / Wentworth Drive: Analysis – Input and Results .....	O
<b>Appendix P</b> .....	<b>P</b>
J2 – Wentworth Drive / Putnoe Lane: Analysis – Input and Results.....	P
<b>Appendix Q</b> .....	<b>Q</b>
J3 – A4280 St Neots Road / A4280 Goldington Road / Norse Road: Analysis – Input and Results ..	Q
<b>Appendix R</b> .....	<b>R</b>
J3 – Nil Detriment Improvements.....	R
MAC drawing no. 248-TA20 .....	R
<b>Appendix S</b> .....	<b>S</b>
J3 – Nil Detriment: Analysis – Input and Results .....	S
<b>Appendix T</b> .....	<b>T</b>
J4 – A421 / St Neots Road / A4280: Analysis – Input and Results .....	T

## 1.0 Introduction

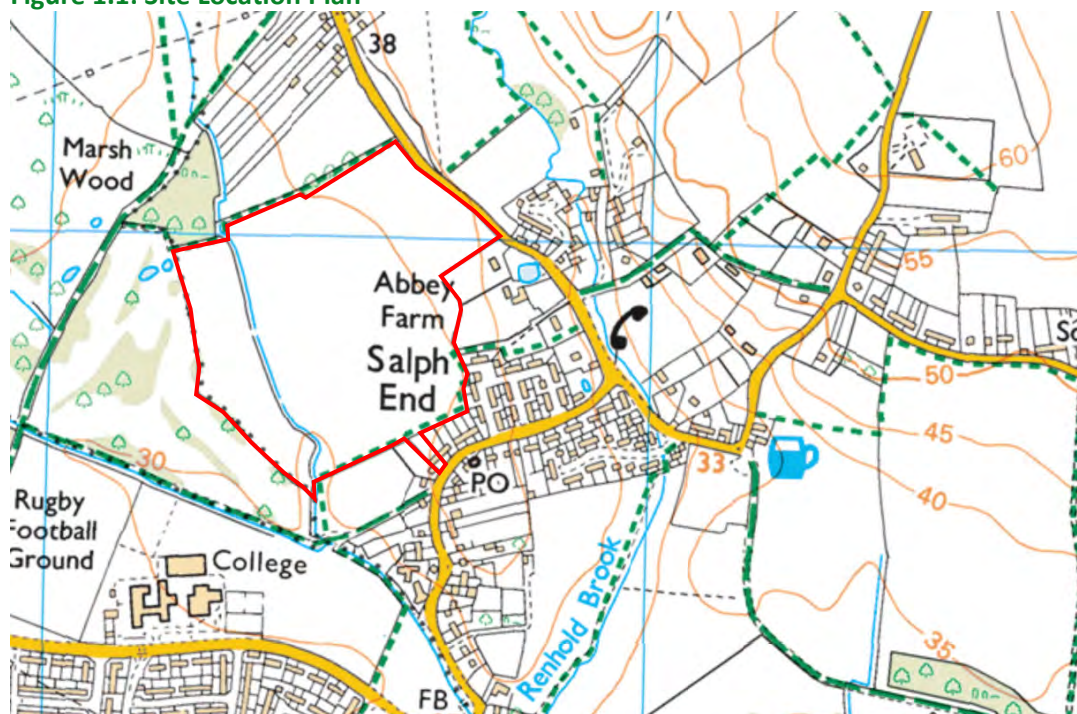
### 1.1 Instructions

- 1.1.1 This Transport Assessment has been prepared from instructions received from Manor Oak Homes.
- 1.1.2 The report has been prepared to support the submission of an outline planning application.
- 1.1.3 The benefit of this report is to our instructing Client.

### 1.2 Site Location

- 1.2.1 The proposed residential development is located at land between Hookhams Lane and Ravensden Road, Salph End, as shown in Figure 1.1 below and enclosed in Appendix A. The approximate National Grid Reference for the site is E507519 N252820.

Figure 1.1: Site Location Plan



### **1.3 Current Use and Description**

- 1.3.1 The site currently comprises agricultural land there has been no previous development on the site.

### **1.4 Proposed Development**

- 1.4.1 The proposed development will comprise up to 400 residential dwellings and a two-form entry primary school, up to 420 pupils.



## **2.0 Existing Conditions – Site Information**

### **2.1 Site Location**

2.1.1 The proposed residential development is located at land between Hookhams Lane and Ravensden Road, Salph End.

### **2.2 Permitted Use**

2.2.1 There has been no previous development on the site. The site is currently an agricultural field. The existing site is shown on the topographical survey enclosed in Appendix B.

### **2.3 Neighbouring Land Uses**

2.3.1 The neighbouring land uses are a children’s nursery and area of woodland to the north, Ravensden Road and properties fronting this road to the east, properties on Home Close and Hookhams Lane to southeast, the Mark Rutherford secondary school to the south and Mowsbury Golf Course to the west.

2.3.2 We are aware of an undecided planning application on land to the south of the site which includes 27 Hookhams Lane for 14 dwellings, planning reference 18/02496/MAF.

### **2.4 Existing Access Arrangements**

2.4.1 The existing site is accessed via a field access off Ravensden Road.

## 3.0 Existing Conditions – Baseline Transport Data

### 3.1 Walking and Cycling

3.1.1 Hookhams Lane is bound by footways on both sides of the carriageway which are approximately 1.5m wide. Home Close is bound by footways on both sides of the carriageway which are approximately 1.8m wide. Ravensden Road is bound by a single footway of approximately 1.2m wide on the western side of the carriageway. Footways on Hookhams Lane are separated from the carriageway by a grass verge.

3.1.2 The existing site has three Public Rights of Way (PROW) running through the site. The PROWs will be maintained through the site post development.

3.1.3 Footways within the vicinity of the site generally have dropped kerbs at the appropriate locations.

3.1.4 There are no dedicated cycling facilities within the vicinity of the site.

3.1.5 Walking and cycling distances to key local facilities is set out on the plan enclosed in Appendix D. The plan also shows the proximity of the site to key facilities including: schools, health services, shops etc. The suitability of the walking distance shown on the drawing is based on the guidance described in full below. Cycle journeys are generally considered acceptable if the distance is less than 5km.

3.1.6 In 2000 the Institution of Highways and Transportation published the document 'Providing for Journeys on Foot'. This document states that:

*"80% of walk journeys and walk stages in urban areas are less than one mile. The average length of a walk journey is one kilometre (0.6 miles). This differs little by age or sex and has remained constant since 1975/76."*

It goes on to define an average walking speed thus:

*"An average walking speed of approximately 1.4 m/s can be assumed, which equates to approximately 400m in five minutes or three miles per hour."*

3.1.7 Within the document:

*"Table 3.2 contains suggested acceptable walking distances, for pedestrians without a mobility impairment for some common facilities. These may be used for planning and evaluation purposes."*

Table 3.2 is replicated below as Table 3.1. Predicted journey times have been added to distances based on the 1.4m/s walking pace.

**Table 3.1: Suggested Walking Distances - IHT 'Providing for Journeys on Foot'**

	Town Centres		Commuting / School / Sight-seeing		Elsewhere	
	Distance	Time	Distance	Time	Distance	Time
Desirable	200m	2m 23s	500m	5m 57s	400m	4m 46s
Acceptable	400m	4m 46s	1000m	11m 54s	800m	9m 32s
Preferred	800m	9m 32s	2000m	23m 48s	1200m	14m 17s
Maximum						

## 3.2 Public Transport

### Bus

- 3.2.1 The nearest bus stops are located on Hookhams Lane approximately 100m from the site's proposed access on Hookhams Lane. The bus stop is located within a 1-2 minute walk from the development site's access off Hookhams Lane. The bus stops serve the bus routes described in Table 3.2 below. Full timetables are enclosed in Appendix E.

**Table 3.2: Bus Services and Frequencies**

Route No.	Route	Typical Frequency		
		Mon - Fri	Sat	Sun
27	Bedford - Cople - Willington - Great Barford - Renhold - Bedford	~0800-1500 5 per day	~0800-1500 4 per day	No service
27	Bedford - Renhold - Great Barford - Willington - Cople - Bedford	~1000-1745 4 per day	~1000-1600 3 per day	No service

- 3.2.2 The number 27 bus service provides occasional services to Bedford and surrounding villages. This would allow residents of the development to commute to work in Bedford and connect with additional services in Bedford.

### Rail

- 3.2.3 The nearest railway station is Bedford St Johns. The railway station is located on the Marston Vale line between Bletchley and Bedford. The station is served by hourly trains to Bedford and Bletchley.
- 3.2.4 Bedford St Johns railway station is located approximately 6.1km (3.8miles) from the northern site's access to Hookhams Lane.

### 3.3 Highway network

3.3.1 The proposed development is accessed off Hookhams Lane and Ravensden Road with the characteristics as set out in Table 3.1 below. The proximity of the site in relation to the wider highway network can be seen on the plan enclosed within Appendix D.

**Table 3.3: Thenford characteristics**

Characteristic	Hookhams Lane	Ravensden Road
Road classification	Unclassified	Unclassified
Carriageway Width	Approx. 5.5m wide	Approx. 5.5m wide
Footways:	Both sides approx. 1.5m wide	Approx. 1.2m wide western side only
Cycleways	None	None
Speed limit	30mph	30mph
Other features	Where footways exist street lit with tactile paving and dropped kerbs at appropriate locations	Where footways exist street lit with tactile paving and dropped kerbs at appropriate locations

### 3.4 Accident Data

3.4.1 The most recent accident data has been obtained from the local highway authority. The data covers the most recent 5 year period from 19 May 2014 to 18 May 2019-. A copy of the accident data is enclosed in Appendix F.

3.4.2 There have been no accidents on Hookhams Lane or Ravensden Road during the last 5 year period.

### 3.5 Accessibility to Education

3.5.1 The proposed development will incorporate a primary school, so will be within a desirable walking distance of the school.

3.5.2 The nearest secondary school, Mark Rutherford School, is located in Bedford, approximately 1.2km (0.8miles) from the proposed development. The secondary school is located within the preferred maximum walking distance for education and is within an acceptable cycling distance from the proposed development.

### **3.6 Accessibility to Health**

3.6.1 The nearest doctors' surgery, dentist and Pharmacy are all located at Goldington Square on Church Lane. These services are all located approximately 1.0km (0.6 mile) from the proposed development. The location of the doctors' is within an acceptable walking and cycling distance of the proposed development.

### **3.7 Accessibility to Retail and Leisure**

3.7.1 There is a post office and convenience store near the site's access on Hookhams Lane. Additional retail and leisure services can be reached by bus and on bike in Bedford.

### **3.8 Accessibility to Employment**

3.8.1 Employment opportunities can be reached by bus and on bike in Bedford.

### **3.9 Summary**

3.9.1 The proposed development is shown to adequately served for pedestrian, cyclist and public transport infrastructure.

3.9.2 The footway provision between the development and the local facilities is adequate for purpose and would allow pedestrians of the development to access the local facilities. From our desktop review of the existing pedestrian facilities we are not aware of any deficiencies in the footway network which would prevent or significantly reduce the likelihood of residents walking to / from the development site.

3.9.3 A review of the accident data shows that there is not an accident data on the highway network within the vicinity of the proposed development site.

## **4.0 Policy Review**

### **4.1 Introduction**

4.1.1 The following section of the report provides an examination of current policies relating to transport at national and local level as they relate to the proposed development.

### **4.2 National Policy**

4.2.1 Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, The Transport White Paper was published in January 2011 by the Coalition Government. The Document outlines a vision ‘for a transport system that is an engine for economic growth, but one that is also greener and safer and improves quality of life in our communities.’ Consequently, reducing carbon emissions derived from transport together with generating economic growth and contributing to economic vitality. The Localism Agenda is another strong theme with the White Paper supporting local solutions that are tailored to specific needs and behaviour patterns to deliver effective local transport.

4.2.2 The priority for local transport, as outlined is to “encourage sustainable local travel and economic growth by making public transport and cycling and walking more attractive and effective, promoting lower carbon transport and tackling local road congestion”.

4.2.3 The White Paper Chapter 4 is titled Enabling Sustainable Transport Choices. The chapter states that ‘the Government wants to encourage and enable more sustainable transport choices’. The document goes on to explain the “nudge” concept that taps into human behavioural tendencies to encourage “good” choices. Nudge interventions are described as being easy and not forbidding choice and travel planning is listed as an example of such.

### **4.3 National Planning Policy Framework**

4.3.1 In March 2012, the National Planning Policy Framework (NPPF) was published by the coalition government with its overarching principle being a ‘presumption in favour of sustainable development.’ The policies contained within the NPPF applied with immediate effect and thereby replaced, amongst other PPS’s and PPG’s, PPG 13 ‘Transport’. Section 4 of the NPPF ‘Promoting sustainable transport’ covers the transport policy, detailed below are the policies that are of relevance.

4.3.2 In paragraph 29, the NPPF acknowledges that ‘transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives’ and goes on to say ‘the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel’.

4.3.3 Paragraph 36 states that ‘All developments which generates significant amounts of movement should be required to provide a Travel Plan’.

- 4.3.4 Paragraph 38 states 'Where practical, particularly within large scale developments, key facilities such as primary schools and local shops should be located within walking distance of most properties

## **5.0 Proposed Development**

### **5.1 Type and Scale**

5.1.1 The proposed development will comprise up to 400 residential dwellings and a two-form entry primary school, up to 420 pupils. The proposed development layout is shown on the plan enclosed in Appendix C.

### **5.2 Access – all modes**

5.2.1 The proposed development will be principally accessed off Hookhams Lane via a new access through 25 Hookhams Lane, this access is shown in Appendix G. A secondary access will be provided off Ravensden Road, as shown on the drawing enclosed in Appendix H.

5.2.2 A spine road, with a width of 6.0m, will connect both accesses making this a suitable route for use by buses. Other adoptable roads within the development site will be constructed inline with the current design standards but will typically comprise 5.5m wide carriageway with 2 no. 2m wide footways for non-shared surfaces.

5.2.3 In addition, the spine road will also provide a 3m wide shared footway / cycleway within the development site.

### **5.3 Parking**

5.3.1 Parking within the development will be provided in line with current Bedfordshire Borough Council guidance at the time of a full or reserved matters planning application.



## 5.4 Trip Generation

5.4.1 Person and vehicle trip rates have been obtained from the TRICS database. The person trip selection criteria is set out in Table 5.1 below. The full TRICS data is enclosed in Appendix I.

**Table 5.1: TRICS Parameters**

Parameter	Selection	
Version	7.6.1	
Main land use	03 – Residential	04 – Education
Sub land use	A – Houses Privately Owned	A - Primary
Regions	All of England except Greater London	
Locations	Suburban area, edge of town	

5.4.2 From the TRICS database the predicted person trip rates are set out in Table 5.2 below.

**Table 5.2: Person & Vehicle Trip Rates - Mean**

Use	Morning Peak (0800-0900)			Afternoon Peak (1700-1800)		
	Arr	Dep	Total	Arr	Dep	Total
Dwellings						
Person	0.192	0.765	0.957	0.585	0.258	0.843
Per dwell						
School						
Vehicle	0.324	0.245	0.569	0.026	0.037	0.063
Per pupil						

5.4.3 To understand the number of trips generated by the residential aspect of the development by mode we need to establish the likely modal split for a development in this location. The 2011 Census includes the ‘Method of Travel to Work’ (MTW) dataset which defines mode choice for all local authority wards. MTW data has been extracted from the 2011 Census for the Great Barford ward which includes the development site. The ‘Method of Travel to Work’ data is summarised in Table 5.3 below.

**Table 5.3: Method of Travel to Work - 2011 Census – Great Barford ward**

Mode	Number	Proportion
Driving a car or van	2,777	85.6%
Passenger in a car or van	146	4.5%
On foot	146	4.5%
Bus, minibus or coach	95	2.9%
Bicycle	57	1.8%
Motorcycle, scooter or moped	22	0.7%

5.4.4 Using the above mode splits (Table 5.3) it is possible to calculate the predicted number of residential trips generated by each mode. The proposed trips by mode is shown in Table 5.4 below.

**Table 5.4: Residential Trip Numbers by Mode**

Mode	Morning Peak (0800-0900)			Afternoon Peak (1700-1800)		
	Arr	Dep	Total	Arr	Dep	Total
Driving a car or van	66	262	328	200	88	289
Passenger in a car or van	3	14	17	11	5	15
On foot	3	14	17	11	5	15
Bus, minibus or coach	2	9	11	7	3	10
Bicycle	1	5	7	4	2	6
Motorcycle, scooter or moped	1	2	3	2	1	2

5.4.5 Using the total number of vehicle trips predicted by the development is shown in Table 5.5 below. The school aspect is based on 420 pupils but takes no account of linked trips.

**Table 5.5: Vehicle Trip Numbers**

Use	Morning Peak (0800-0900)			Afternoon Peak (1700-1800)		
	Arr	Dep	Total	Arr	Dep	Total
Dwellings	66	262	328	200	88	289
School	136	103	239	11	16	26
<b>Total</b>	<b>213</b>	<b>409</b>	<b>622</b>	<b>245</b>	<b>119</b>	<b>364</b>

5.4.6 The proposed development is predicted to generate 622 vehicle trips in the morning peak and 364 trips in the evening peak. Further junction analysis is required to understand the impact of this development on the highway network.

## **6.0 Junction Impact Assessment**

### **6.1 Area of Assessment**

6.1.1 The following junctions have been identified as requiring an impact assessment.

- A1: Access to Hookhams Lane;
- A2: Access to Ravensden Road;
- J1: Hookhams Lane / Norse Road / Church Lane / Wentworth Drive;
- J2: Wentworth Drive / Putnoe Lane;
- J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road; and
- J4: A421 / St Neots Road / A4280.

### **6.2 Distribution**

6.2.1 Residential vehicle trip distribution data has been obtained from the 2011 Census using the 'WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)' dataset. The 2011 Census data has been extracted using the following parameters

- Method of Travel to Work – Driving a car or van
- Place of Work – All
- Usual Residence – Bedford 004

6.2.2 Proposed vehicle trips have been assigned onto the highway network using online route planning software. The Census data with proposed assignment is shown in Appendix J.

6.2.3 School vehicle trips for the new primary school have been distributed using engineering judgement as follows:

- 60% originating from the 400 new dwellings on the development site.
- 40% local area predominately Salph End

6.2.4 Proposed development vehicle movement diagrams are shown on the plan enclosed in Appendix K.

### **6.3 Assessment Year**

6.3.1 A planning application will be submitted in 2019. Therefore, a junction analysis will be undertaken for an assessment year of 2030 when the development is expected to be fully occupied.

6.3.2 To grow traffic counts to the future year assessment year Temprow growth factors will be applied utilising the following inputs:

- Tempo – 72;
- Bedford 004
- NTM AF15 – Urban, Principal
- AM peak growth factor – 1.1699
- PM peak growth factor – 1.1760

## **6.4 Background Traffic**

6.4.1 Vehicle counts at the above junctions were completed in June 2017. Automatic Traffic Counts (ATCs) were carried out at the three proposed access locations (A1, A2 and B1) over a seven-day period from Tuesday 6<sup>th</sup> June to Monday 12<sup>th</sup> June 2017. Classified Turning Counts (CTCs) with Queue Length Surveys were carried out at the five existing junctions (J1-J4) on Tuesday 6<sup>th</sup> June 2017. Both sets of counts are enclosed in Appendix L.

## **6.5 Committed Development**

6.5.1 Except for the adjacent 14 dwelling development we are not aware of any developments which need to be considered separately and would not be picked up as part of generic Tempo assessment.

6.5.2 Vehicle trips from the adjacent development will be generated and assigned to the highway network in the same way as the vehicle trips from the proposed development.

## 7.0 Junction Analysis Results

### 7.1 Introduction

7.1.1 The junction assessments have been undertaken using TRL software Arcady 9 and PICADY 9 for roundabouts and priority junctions respectively.

7.1.2 A junction is considered to be operating within capacity if the RFC (Ratio to Flow Capacity) value is less than or equal to 0.85. A RFC value of 1.0 represents absolute capacity, however, a lower value of 0.85 is used to reflect the practical capacity of the junction.

### 7.2 A1: Site Access off Hookhams Lane

7.2.1 This junction is a new three arm simple priority junction and will comprise the new access for the development site. The arms are labelled thus:

Arm A – Hookhams Lane (W)

Arm B – Access

Arm C – Hookhams Lane (E)

7.2.2 The full junction input data and result can be found in Appendix M. The results of the assessment are summarised below.

**Table 7.1: A1 Access off Hookhams Lane – 2030 AM Peak 0800-0900**

	Background + Committed + Development	
	Max RFC	Max Queue
B-C	0.25	0
B-A	0.64	2
C-AB	0.11	0

**Table 7.2: A1 Access off Hookhams Lane – 2030 AM Peak 0800-0900**

	Background + Committed + Development	
	Max RFC	Max Queue
B-C	0.05	0
B-A	0.2	0
C-AB	0.12	0

7.2.3 The access of Hookhams Lane is shown to operate within capacity in the future year scenario.

### 7.3 A2: Site Access off Ravensden Road

7.3.1 This junction is a new three arm simple priority junction and will comprise the new access for the development site. The arms are labelled thus:

- Arm A – Ravensden Road (S)
- Arm B – Access
- Arm C – Ravensden Road (N)

7.3.2 The full junction input data and result can be found in Appendix N. The results of the assessment are summarised below.

**Table 7.3: A1 Access off Ravensden Road – 2030 AM Peak 0800-0900**

	Background + Committed + Development	
	Max RFC	Max Queue
B-C	0.07	0
B-A	0	0
C-AB	0.02	0

**Table 7.4: A1 Access off Ravensden Road – 2030 AM Peak 0800-0900**

	Background + Committed + Development	
	Max RFC	Max Queue
B-C	0.02	0
B-A	0	0
C-AB	0.07	0

7.3.3 The access of Ravensden Road is shown to operate within capacity in the future year scenario.

## 7.4 Junction 1: Hookhams Lane / Norse Road / Church Lane / Wentworth Drive

7.4.1 The junction is a four-arm roundabout, the arms are labelled thus:

- Arm A – Hookhams Lane
- Arm B – Norse Road
- Arm C – Church Lane
- Arm D – Wentworth Drive

7.4.2 The full junction input data and result can be found in Appendix O. The results of the assessment are summarised below.

**Table 7.5: J1 Hookhams Ln / Norse Rd / Church Ln / Wentworth Dr – 2030 AM Peak 0800-0900**

	Background + Committed		Background + Committed + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A – Hookhams Lane	0.52	1	0.74	3	0.22	2
B – Norse Road	0.58	1	0.63	2	0.05	1
C – Church Lane	0.34	1	0.37	1	0.03	0
D – Wentworth Drive	0.61	2	0.64	2	0.03	0

**Table 7.6: J1 Hookhams Ln / Norse Rd / Church Ln / Wentworth Dr – 2030 AM Peak 0800-0900**

	Background + Committed		Background + Committed + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A – Hookhams Lane	0.23	0	0.29	0	0.07	0
B – Norse Road	0.77	3	0.82	4	0.05	1
C – Church Lane	0.30	0	0.35	1	0.05	1
D – Wentworth Drive	0.37	1	0.42	1	0.05	0

7.4.3 The junction is shown to operate within capacity in all scenarios.

## 7.5 Junction 2: Wentworth Drive / Putnoe Lane

7.5.1 The junction is a three-arm roundabout, the arms are labelled thus:

- Arm A – Wentworth Drive (E)
- Arm B – Putnoe Lane
- Arm C – Wentworth Drive (W)

7.5.2 The full junction input data and result can be found in Appendix P. The results of the assessment are summarised below.

**Table 7.7: J2 Wentworth Dr / Putnoe Lane – 2030 AM Peak 0800-0900**

	Background + Committed		Background + Committed + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A – Wentworth Drive (E)	0.78	4	0.83	5	0.05	1
B – Putnoe Lane	0.55	1	0.58	1	0.03	0
C – Wentworth Drive (W)	0.87	6	0.88	7	0.01	1

**Table 7.8: J2 Wentworth Dr / Putnoe Lane – 2030 AM Peak 0800-0900**

	Background + Committed		Background + Committed + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A – Wentworth Drive (E)	0.80	4	0.81	4	0.01	0
B – Putnoe Lane	0.52	1	0.57	1	0.05	0
C – Wentworth Drive (W)	0.44	1	0.47	1	0.03	0

7.5.3 The junction is shown to typically operate within capacity in all scenarios. Only the Wentworth Road (W) arm of the junction operates overcapacity with RFC values of 0.87 and 0.88 for the without and with development scenarios respectively.

7.5.4 The impact of the development on this arm is minimal increasing the RFC value by 0.01 and the queue length by 1 vehicle. We would consider this impact to be insignificant, therefore, no mitigation works are required.



## 7.6 Junction 3: A4280 St Neots Road / A4280 Goldington Road / Norse Road

7.6.1 The junction is a four-arm roundabout, the arms are labelled thus:

- Arm A – A4280 St Neots Road
- Arm B – A4280 Goldington Road – Exit Only
- Arm C – A4280 Goldington Road – Entry Only
- Arm D – Norse Road

7.6.2 The full junction input data and result can be found in Appendix Q. The results of the assessment are summarised below.

**Table 7.9: J3 A4280 St Neots Rd / A4280 Goldington Rd / Norse Rd – 2030 AM Peak 0800-0900**

	Background + Committed		Background + Committed + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A – St Neots Rd	0.88	7	0.89	8	0.01	1
B – Goldington Road	0.53	1	0.53	1	0	0
C – Norse Road	0.76	3	0.84	5	0.08	2

**Table 7.10: J3 A4280 St Neots Rd / A4280 Goldington Rd / Norse Rd – 2030 PM Peak 1700-1800**

	Background + Committed		Background + Committed + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A – St Neots Rd	1.00	31	1.06	64	0.06	33
B – Goldington Road	0.61	2	0.62	2	0.01	0
C – Norse Road	0.54	1	0.56	1	0.02	0

7.6.3 With the exception of St Neots Road the junction typically operates within capacity. The St Neots Road arm of the junction operates overcapacity with RFC values of 0.88 and 0.89 in the morning peak without and with development scenarios respectively. Whilst RFC values are 1.00 and 1.06 in the evening peak without and with development scenarios respectively.

7.6.4 The impact of the development in the evening peak hour on St Neots Road requires mitigation as it increase RFC values by 0.06 and queue lengths by 33 vehicles.

7.6.5 To achieve nil detriment mitigation on the St Neots Road arm the geometry improvements as shown in Table 7.11 below are required to achieve nil detriment. This changes are also shown on the table enclosed in Appendix R.

**Table 7.11: J3 Arm A St Neots Road Nil Detriment Geometry Changes**

	Existing	Nil Det	Change
E – Entry Width	7.03	7.36	+0.33
l’– Flare length	30.8	27.9	-2.9
R – Entry Radius	14.0	29.7	+15.7

7.6.6 The results of the nil detriment analysis are shown in Table 7.12 and Table 7.13 below with full results enclosed in Appendix S.

**Table 7.12: J3 A4280 St Neots Rd / A4280 Goldington Rd / Norse Rd – 2030 AM Peak 0800-0900 – NIL DET**

	Background + Committed		Background + Committed + Development – NIL DET		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A – St Neots Rd	0.88	7	0.84	5	-0.04	-2
B – Goldington Road	0.53	1	0.53	1	0	0
C – Norse Road	0.76	3	0.84	5	+0.12	2

**Table 7.13: J3 A4280 St Neots Rd / A4280 Goldington Rd / Norse Rd – 2030 PM Peak 1700-1800 – NIL DET**

	Background + Committed		Background + Committed + Development – NIL DET		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A – St Neots Rd	1.00	31	0.99	28	-0.01	-3
B – Goldington Road	0.61	2	0.63	2	+0.02	0
C – Norse Road	0.54	1	0.56	1	+0.02	0

7.6.7 The proposed nil detriment solution mitigates the impact of the proposed development on the junction during both the morning and evening peak periods. Hence, with mitigation the proposed development will not have a significant adverse impact on the highway network.

## 7.8 Junction 4: A421 / St Neots Road / A4280.

7.8.1 The junction is a grade separated dumbbell junction located above the A421. The junction comprises of two roundabouts. One to the north with five arms and one to the south with four arms. The arms are labelled thus:

Northern roundabout

- Arm A – A421 (N) – exit only
- Arm B – Connecting bridge
- Arm C – A421 (S) – entry only
- Arm D – St Neots Road
- Arm E – Water End

Southern roundabout

- Arm A – A421 (N) – entry only
- Arm B – St Neots Road
- Arm C – A421 (S) – exit only
- Arm D – Connecting bridge

7.8.2 The full junction input data and result can be found in Appendix T. The results of the assessment are summarised below.

**Table 7.14: J4 A421 / St Neots Road / A4280 – 2030 AM Peak 0800-0900**

	Background + Committed		Background + Committed + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
1B – Connecting bridge	0.30	0	0.30	0	0	0
1C – A421 (S) – entry only	0.38	1	0.39	1	0.01	0
1D – St Neots Road	0.85	6	0.89	7	0.04	1
1E – Water End	0.34	1	0.46	1	0.12	0
2A – A421 (N) – entry only	0.29	0	0.31	0	0.02	0
2B – St Neots Road	0.61	2	0.65	2	0.04	0
2D – Water End	0.62	2	0.65	2	0.03	0

**Table 7.15: J4 A421 / St Neots Road / A4280 – 2030 PM Peak 1700-1800**

	Background + Committed		Background + Committed + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
1B – Connecting bridge	0.31	0	0.33	1	0.02	1
1C – A421 (S) – entry only	0.65	2	0.67	2	0.02	0
1D – St Neots Road	0.75	3	0.77	3	0.02	0
1E – Water End	0.15	0	0.19	0	0.04	0
2A – A421 (N) – entry only	0.35	0	0.37	1	0.02	0
2B – St Neots Road	0.39	1	0.41	1	0.02	0
2D – Water End	0.61	2	0.62	2	0.01	0

- 7.8.3 Except for the St Neots Road arm of the northern roundabout the junction typically operates within capacity. The St Neots Road arm of northern roundabout operates overcapacity in the morning peak hour only with RFC values of 0.85 and 0.89 in the morning peak without and with development scenarios respectively.
- 7.8.4 The impact of the development in the morning peak hour on St Neots Road arm of the northern roundabout requires is considered insignificant as whilst it increases RFC values by 0.04 it only increases queue length by 1. Hence, the impact of the development on the junction is considered to be insignificant.

## **8.0 Conclusion**

### **8.1 Site Location and Permitted Use**

- 8.1.1 The proposed residential development is located at land between Hookhams Lane and Ravensden Road, Salph End.
- 8.1.2 The site currently comprises agricultural land there has been no previous development on the site

### **8.2 Existing Conditions**

- 8.2.1 The proposed development is shown to adequately served for pedestrian, cyclist and public transport infrastructure.
- 8.2.2 The footway provision between the development and the local facilities is adequate for purpose and would allow pedestrians of the development to access the local facilities. From our desktop review of the existing pedestrian facilities we are not aware of any deficiencies in the footway network which would prevent or significantly reduce the likelihood of residents walking to / from the development site.
- 8.2.3 A review of the accident data shows that there is not an accident data on the highway network within the vicinity of the proposed development site.

### **8.3 Proposed Development**

- 8.3.1 The proposed development will comprise up to 400 residential dwellings and a two-form entry primary school, up to 420 pupils.
- 8.3.2 The proposed development will be principally accessed off Hookhams Lane via a new access through 25 Hookhams Lane. A secondary access is provided off Ravensden Road.
- 8.3.3 A spine road, with a width of 6.0m, will connect both accesses making this a suitable route for use by buses. Other adoptable roads within the development site will be constructed inline with the current design standards but will typically comprise 5.5m wide carriageway with 2 no. 2m wide footways for non-shared surfaces.
- 8.3.4 In addition, the spine road will also provide a 3m wide shared footway / cycleway within the development site.
- 8.3.5 Parking within the development will be provided in line with current Bedfordshire Borough Council guidance at the time of a full or reserved matters planning application.
- 8.3.6 A junction analysis of the impact from the proposed development has been undertaken at 4 junctions and both accesses. Typically, the impact of the development on the highway network is insignificant.

- 8.3.7 At Junction 3: A4280 St Neots Road / A4280 Goldington Road / Norse Road the impact of the development is such that mitigation is required to the St Neots Road. Small increases are required to the entry width, entry radius and flare length to mitigate the impact of the development on the highway network.



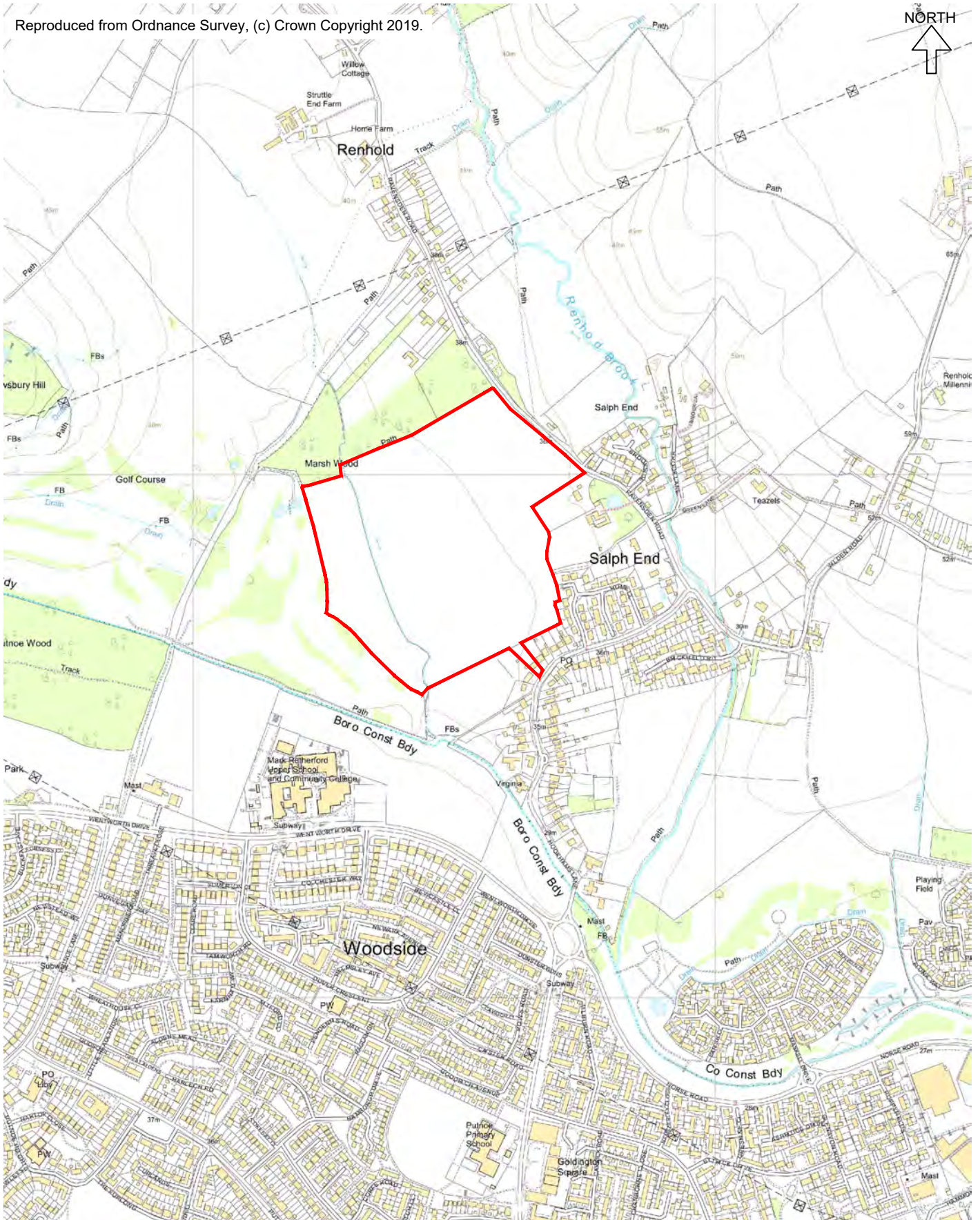
**Appendix A**

Location Plan

MAC drawing no. 248-TA01

Reproduced from Ordnance Survey, (c) Crown Copyright 2019.

NORTH



T: 01604 340544 Northampton Office  
 E: info@mac-ltd.co.uk W: mac-ltd.co.uk  
 Martin Andrews Consulting Ltd

Client: Manor Oak Homes

Project: Land between Hookhams Ln  
 and Ravensden Rd  
 Salph End, Beds

Date: 28/08/19

Drw: MJA

Chk: MJA

Scale: 1:10,000

Size: A4

Title: Site Location Plan

Drawing No. 248-TA01

Revision A

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Drainage Strategies

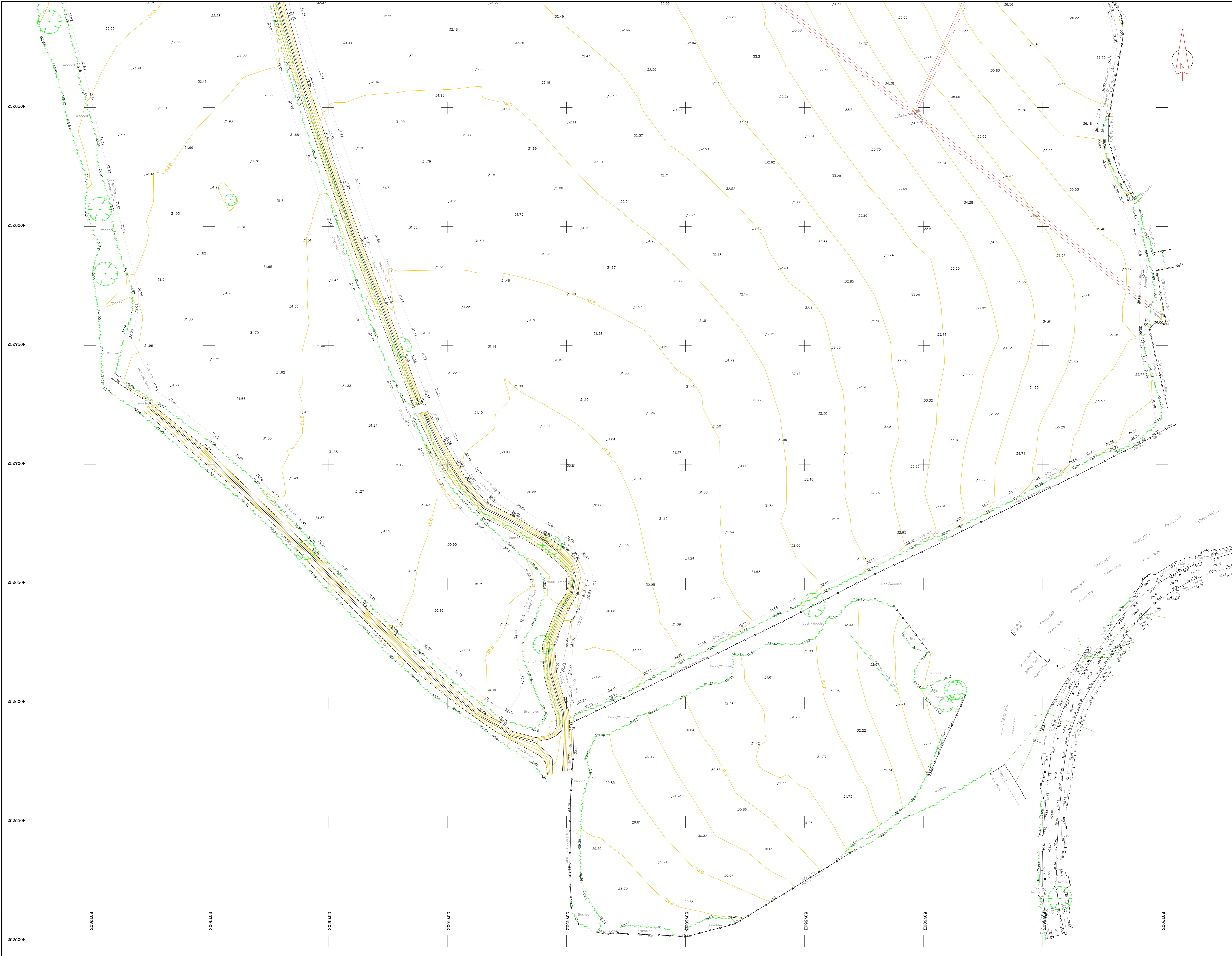
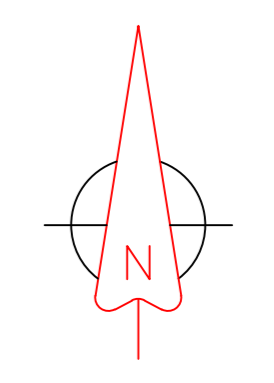




**Appendix B**

Topographical Survey  
MSurv drawing no. 1215/2272/1, 2 and 3

Notes  
Grid and levels have been aligned to O.S. National Grid OSGB36(15).



Suffix	Revision	Date	Initial

**MSURV**  
your surveying solution

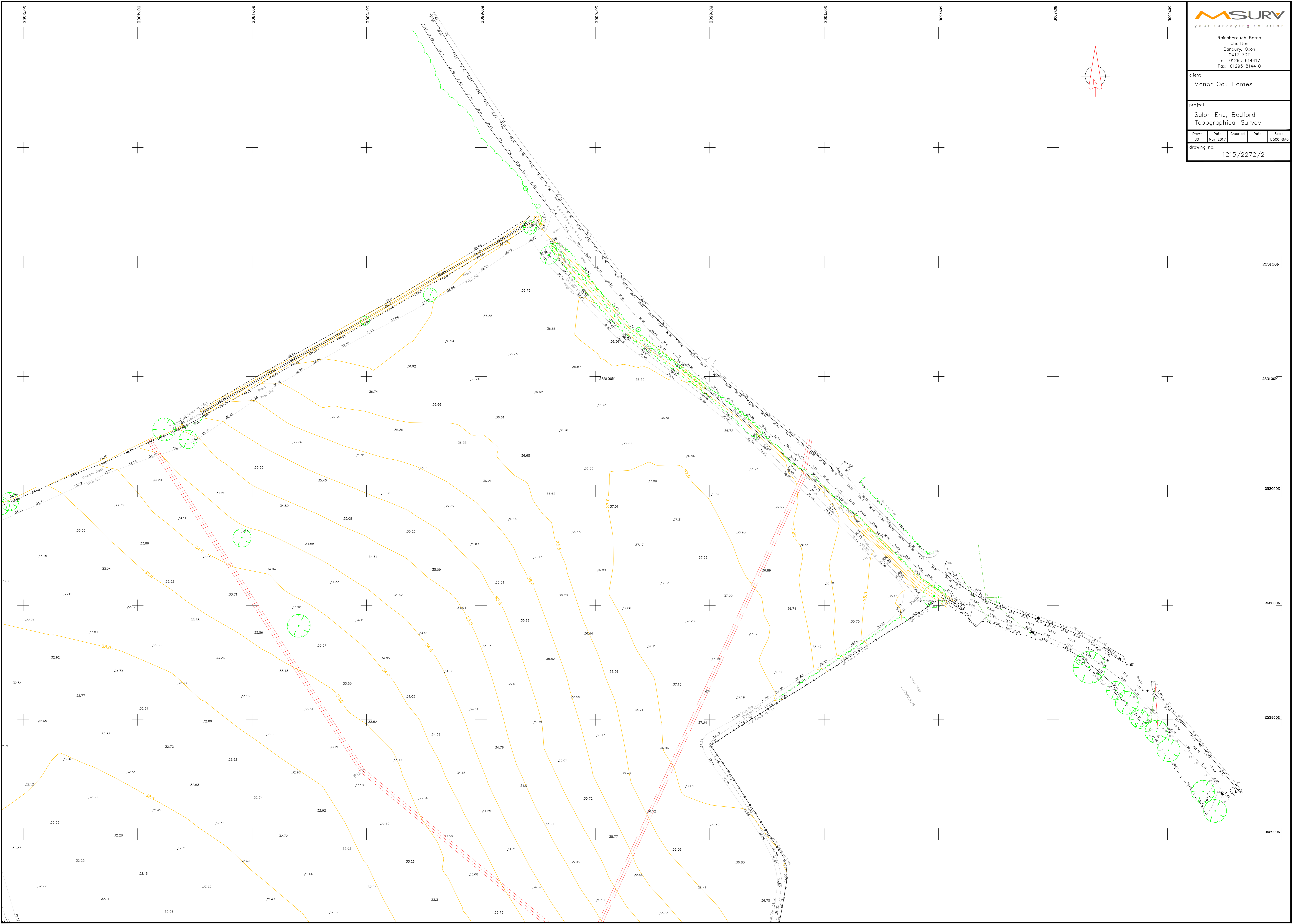
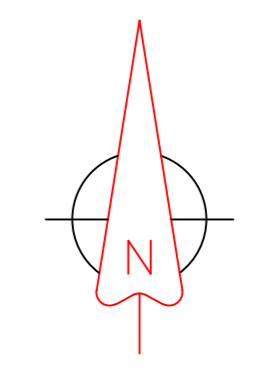
Rainsborough Barns  
Charlton  
Banbury, Oxon  
OX17 3DT  
Tel: 01295 814417  
Fax: 01295 814410

client  
Manor Oak Homes

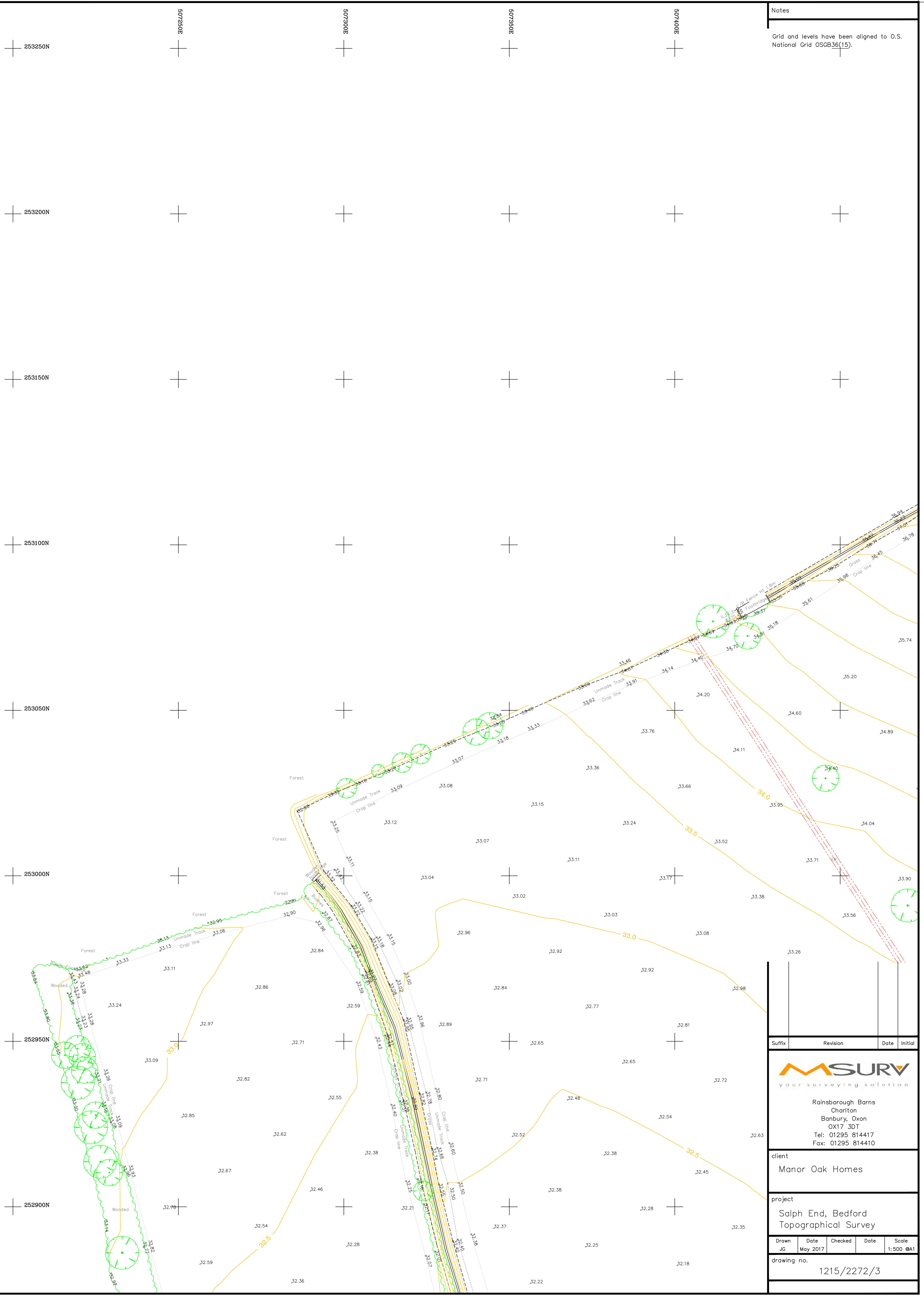
project  
Salph End, Bedford  
Topographical Survey

Drawn	Date	Checked	Date	Scale
JS	May 2017			1:500 BAO

drawing no. 1215/2272/1



Notes  
 Grid and levels have been aligned to O.S. National Grid OSGB36(15).



Suffix	Revision	Date	Initial

**MSURV**  
 your surveying solution

Rainsborough Barns  
 Charlton  
 Banbury, Oxon  
 OX17 3DT  
 Tel: 01295 814417  
 Fax: 01295 814410

client  
 Manor Oak Homes

project  
 Salph End, Bedford  
 Topographical Survey

Drawn	Date	Checked	Date	Scale
JG	May 2017			1:500 @A1

drawing no.  
 1215/2272/3





- Site area 19.57ha
- Open Space 3.17ha
- Developable area 10.75ha  
Includes primary route
- School area 2.1ha
- Attenuation basins 0.59ha  
Area excluded from open space calculation
- Flood zone 1.88ha
- Sports pitches 1.08ha
- Primary route
- Indicative vehicular access and parking  
for sports pitches.
- Easement

Revision:	Date:	By:
A	12.08.19	HW/DW
B	20.08.19	HW/DW
C	22.08.19	HW/DW

Plan updated with revised distribution of POS and relocation of site access.  
 Developable, open space and attenuation areas updated.  
 Attenuation basin amended. Site area added to key.



Architects · Project Managers · Quantity Surveyors  
 130 New Walk  
 Leicester, LE1 7JA  
 Tel: 0116 204 5800, Fax: 0116 204 5801  
 email: design@rg-p.co.uk, www.rg-p.co.uk

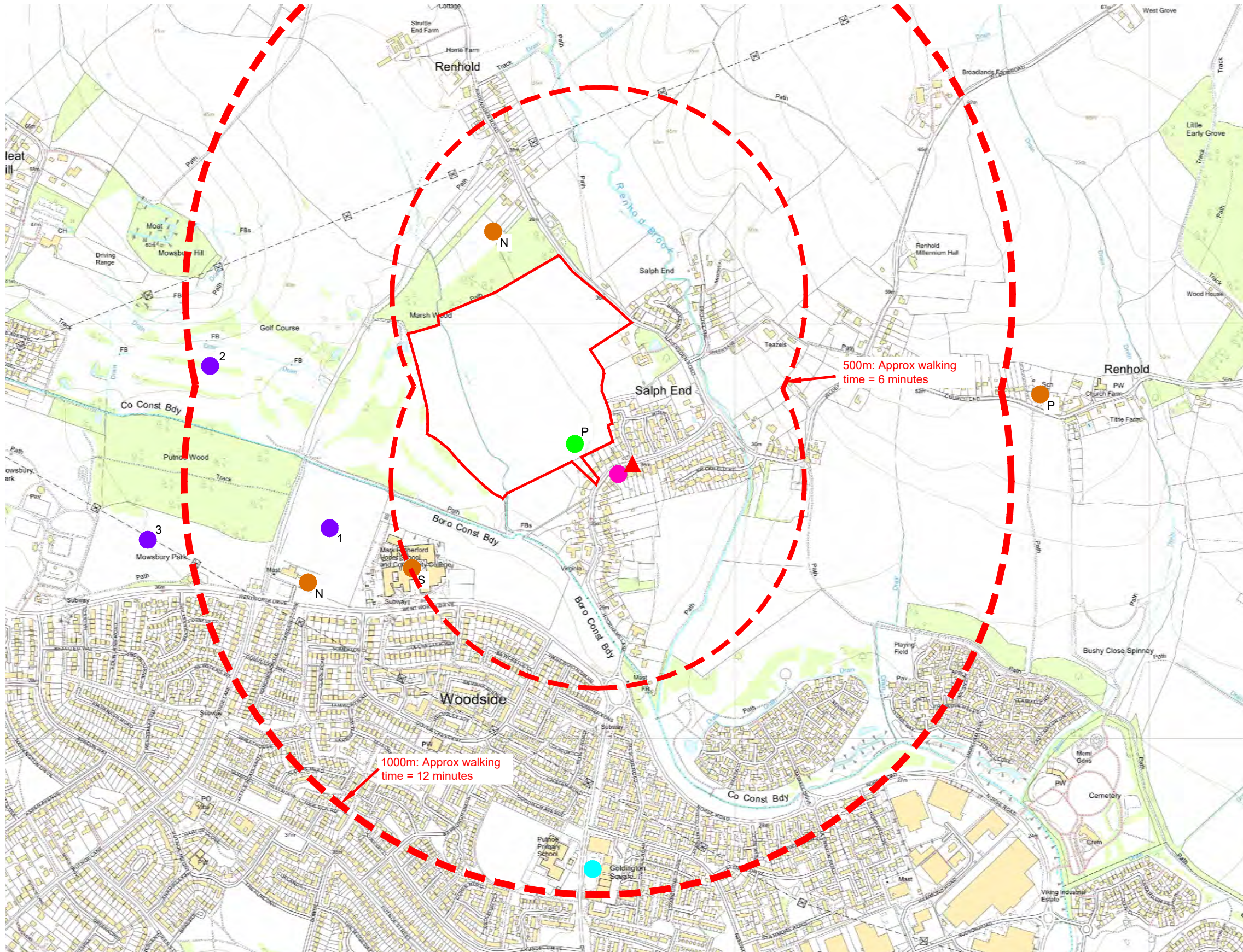
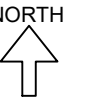
Project:	A development at Salph End, Bedford	
Client:	Manor Oak Homes	
Sheet title:	Parameters Plan	
Ref:	40986 013C	
Scale:	1:2500 @ A3	
Date:	25.07.19	
Drawn:	HW	Checked: DW

All dimensions to be checked on site. This drawing is the copyright of the Architect, and not to be reproduced without their permission. Ordnance Survey map information reproduced with permission of HMSO Crown Copyright reserved. rg+p Ltd. Trading as rg+p



**Appendix D**

Facilities Plan and Walking Distances  
MAC drawing no. 248-TA02



**Notes:**

1. Walking distances based on a walking speed of 1.4 m/s from 'Providing For Journeys On Foot'.
2. Actual walking distances may vary from radial distances shown.
3. Nearest of each facility / service shown only.

**Key**

- - - Site Boundary
- Doctors Surgery / Dentist / Pharmacy / Supermarket
- Schools - Existing  
Nursery (N) / Primary (P) / Secondary (S)
- Proposed Primary School
- Library
- Post Office / Convenience Store
- Shops 1 - Convenience Store / Petrol Station  
2 - Supermarket
- Leisure Facilities**
- 1. Rugby club
- 2. Golf course
- 3. Recreation ground
- ▲ Bus Stops

**Walking Times**

- 0-420m - 0 to 5 minutes walking time
- 420-840m - 5 to 10minutes walking time
- 840-1260m - 10 to 15minutes walking time

Reproduced from Ordnance Survey, (c) Crown Copyright 2019.

 <b>MAC</b> T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd	<ul style="list-style-type: none"> <li>• Transport Assessments</li> <li>• Flood Risk Assessments</li> <li>• Highway Advice</li> <li>• Access Design</li> <li>• Drainage Strategies</li> <li>• Vehicle tracking</li> </ul>	<b>Client:</b> Manor Oak Homes	<b>Project:</b> Land between Hookhams Lane and Ravensden Rd Salph End, Beds
		<b>Title:</b> Facilities Plan and Walking Distances	<b>Date:</b> 28/08/19 <b>Drw:</b> MJA <b>Chk:</b> MJA
		<b>Drawing No:</b> 248-TA02	<b>Revision:</b> -
		<b>Scale:</b> 1:10,000 <b>Size:</b> A3	





**Appendix E**  
Bus timetables and routes



Timetable valid from 01/01/2019 until further notice

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

**Mondays to Fridays**

Service Restrictions	NSch	Sch	SchTu	Sch NTu	NSch	Sch	NSch
Notes	TUX						
Bedford, Bus Station (Stop Q)	—	—	0815	0815	0820	1045	1315 1425 1425
Fenlake, o/s Tesco Cardington	—	—	0823	0823	0828	1053	1323 1433 1433
Cardington, o/s The Kings Arms	—	0725	0827	0827	0832	1057	1327 1437 1437
Cople, o/s All Saints Church	—	0728	0830	0830	0835	1100	1330 1440 1440
Willington, adj The Crown	—	0735	0835	0835	0840	1105	1335 1445 1445
Great Barford, opp All Saints Church	—	0741	0841	0841	0846	1111	1341 1451 1451
Great Barford, o/s Alban Middle School	—	0743	0843	0843	0848	1113	1343 1453 1453
Renhold, opp The Green	0757	0754	0849	0849	0854	1119	1349 1459 1459
Salph End, o/s 34 Hookhams Lane	0804	0801	0856	0901	0901	1126	1356 — 1506
Brickhill, opp Mowsbury Park Pavillion	—	0808	0900	—	—	—	—
Goldington, opp Hudson Road	0808	0813	0905	0905	0905	1130	1400 — 1510
Goldington, opp Goldington Green	0812	0817	0909	0909	0909	1134	1404 — 1514
Bedford, Bus Station (Stop Q)	0821	0830	0918	0918	0918	1143	— 1523

**Saturdays**

Bedford, Bus Station (Stop Q)	0820	1045	1315	1425
Fenlake, o/s Tesco Cardington	0828	1053	1323	1433
Cardington, o/s The Kings Arms	0832	1057	1327	1437
Cople, o/s All Saints Church	0835	1100	1330	1440
Willington, adj The Crown	0840	1105	1335	1445
Great Barford, opp All Saints Church	0846	1111	1341	1451
Great Barford, o/s Alban Middle School	0848	1113	1343	1453
Renhold, opp The Green	0854	1119	1349	1459
Salph End, o/s 34 Hookhams Lane	0901	1126	1356	1506
Goldington, opp Hudson Road	0905	1130	1400	1510
Goldington, opp Goldington Green	0909	1134	1404	1514
Bedford, Bus Station (Stop Q)	0918	1143	1413	1523

**Sundays**

no service

**Late Summer Bank Holiday (Monday 26th Aug)**

no service

Service Restrictions: NSch - School holidays only: 11 Feb-15 Feb, 8 Apr-22 Apr, 27 May-3 Jun, 22 Jul-3 Sep  
 NTu - Not Tuesdays  
 Sch - School days only: 3 Jan-8 Feb, 18 Feb-5 Apr, 23 Apr-24 May, 4 Jun-19 Jul  
 Tu - Tuesdays only

Notes: TUX - Not Tuesdays



Timetable valid from 01/01/2019 until further notice

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

**Mondays to Fridays**

Service Restrictions	0940	1210	Sch	NSch	1545	1720
Bedford, Bus Station (Stop Q)	0940	1210	—	1545	1720	
Goldington, adj Goldington Green	0948	1218	—	1553	1728	
Goldington, adj Hudson Road	0952	1222	—	1557	1732	
Brickhill, opp Mowsbury Park Pavillion				1515		
Salph End, o/s 2 Hookhams Lane	0956	1226	1518	1601	1736	
Renhold, adj The Green	1003	1233	1526	1608	1743	
Great Barford, opp Alban Middle School	1009	1239	1532	1614	1749	
Great Barford, o/s All Saints Church	1011	1241	1534	1616	1751	
Willington, opp Willington Lower School	1017	1247	1540	1622	1757	
Cople, opp All Saints Church	1021	1251	1544	1626	1801	
Cardington, opp The Kings Arms	1023	1253	1546	1628	1803	
Fenlake, opp Tesco Cardington	1028	1258	1551	1633	1808	
Bedford, Bus Station (Stop Q)	1037	1307	1600	1642	1815	

**Saturdays**

Bedford, Bus Station (Stop Q)	0940	1210	1545		
Goldington, adj Goldington Green	0948	1218	1553		
Goldington, adj Hudson Road	0952	1222	1557		
Salph End, o/s 2 Hookhams Lane	0956	1226	1601		
Renhold, adj The Green	1003	1233	1608		
Great Barford, opp Alban Middle School	1009	1239	1614		
Great Barford, o/s All Saints Church	1011	1241	1616		
Willington, opp Willington Lower School	1017	1247	1622		
Cople, opp All Saints Church	1021	1251	1626		
Cardington, opp The Kings Arms	1023	1253	1628		
Fenlake, opp Tesco Cardington	1028	1258	1633		
Bedford, Bus Station (Stop Q)	1037	1307	1640		

**Sundays**

no service

**Late Summer Bank Holiday (Monday 26th Aug)**

no service

**Service Restrictions:** NSch - School holidays only: 11 Feb-15 Feb, 8 Apr-22 Apr, 27 May-3 Jun, 22 Jul-3 Sep  
 Sch - School days only: 3 Jan-8 Feb, 18 Feb-5 Apr, 23 Apr-24 May, 4 Jun-19 Jul



For times of the next departures from a particular stop you can use **traveline-txt** - by sending the SMS code to **84268**. Add the service number after the code if you just want a specific service - eg: **buctdgttd 60**. The return message from **traveline-txt** will show the next three departures, and it currently costs 25p plus any message sending charge. Departure times will be real-time predictions where available, or scheduled departure times if not.

You can also get the same information by using the SMS code at [www.nextbuses.mobi](http://www.nextbuses.mobi) (only normal browsing charges apply) or through several iPhone or Android apps that offer access to **NextBuses**.

**NOTE: SMS codes are different in each direction. Make sure you choose the right direction from these lists.**

SMS Code	Stop Name	Street	ATCO Code
bfsdamwt	Bedford, Bus Station (Stop Q)		020035577
bfsajwlg	Bedford, St Paul's Square (Stop P2)	St Paul's Square	020035023
bfsapdpg	Bedford, St John's Street (S-bound)	St John's Street	020035770
bfsapdpd	Bedford, opp St Johns Centre	Rope Walk	020035763
bfsapmjp	Bedford, adj Duckmill Lane	Cardington Road	020035821
bfsapdmw	Bedford, o/s Bedford Girls School	Cardington Road	020035761
bfsapdmj	Fenlake, o/s Tesco Cardington	Cardington Road	020035758
bfsapdmg	Fenlake, opp Cardington Road	Cardington Road	020035757
bfsdapap	Fenlake, opp The Fenlake Anchor	Cardington Road	020035581
bfsajpwp	Cardington, o/s The Vicarage	Bedford Road	020033013
bfsajpwj	Cardington, adj St Marys Church	The Green	020033011
bfsajpwg	Cardington, o/s The Kings Arms	The Green	020033009
bfsajpwa	Cardington, o/s Cottage Farm Nursery	Cople Road	020033007
bfsajptp	Cardington, opp Chapel Lane	Cople Road	020033005
bfsajptj	Cople, o/s Grange Farm	Grange Lane	020033003
bfsajptg	Cople, o/s All Saints Church	Grange Lane	020033000
bfsajtag	Cople, adj Rye Crescent	Willington Road	020033021
bfsawtwm	Willington, opp Cople Turn	Bedford Road	020033023
bfsajtap	Willington, adj Churchill Place	Church Road	020033025
bfsdamdj	Willington, adj The Crown	Station Road	020033014
bfsajtat	Willington, Crossroads (S-bound)	Station Road	020033026
bfsajtdj	Great Barford, opp All Saints Church	High Street	020033090
bfsajtdm	Great Barford, opp College Farm	High Street	020033092
bfsdamdp	Great Barford, o/s Alban Middle School	Silver Street	020033018
bfsajtdw	Great Barford, adj The Cross	Bedford Road	020033100
bfsdajtg	Renhold, Green End (N-bound)	Green End	020035526
bfsdajtj	Renhold, opp The Green	Green End	020035527
bfsamtdp	Renhold, adj Becher Close	Green End	020035316
bfsamtdm	Renhold, opp Three Horseshoes	Top End	020035313
bfsamtdj	Renhold, opp Wood Lane	Top End	020035312
bfsadattj	Renhold, opp All Saints' Church	Church End	020035310
bfsadattd	Renhold, o/s 8 Church End	Church End	020035307
bfsadatta	Salph End, o/s 14 Hookhams Lane	Hookhams Lane	020035306
bfsdajwa	Salph End, adj Brookside	Ravensden Road	020035531
bfsdajwj	Salph End, Ravensden Road (N-bound)	Ravensden Road	020035534
bfsawpgw	Ravensden, adj Butler Street	Thurleigh Road	020032005
bfsawpgp	Ravensden, Wood End (N-bound)	Thurleigh Road	020032003
bfsajppj	Riseley, o/s The Old White Horse	High Street	020031041
bfsajppm	Riseley, opp The Five Bells	High Street	020031039
bfsawpdm	Riseley, opp Keysoe Road	High Street	020031068
bfsdajtp	Renhold, opp Village Hall	Wilden Road	020035529
bfsdajtw	Wilden, opp High Farm	Renhold Road	020035530
bfsawpmt	Wilden, Village Centre (N-bound)	High Street	020032019
bfsawpjm	Wilden, Village Hall (W-bound)	High Street	020032017
bfsawpmd	Ravensden, opp Redbrick Cottages	Ravensden Road	020032015
bfsawpjm	Ravensden, o/s Crow Hill Farm	Ravensden Road	020032013
bfsawpjp	Ravensden, adj Vicarage Close	Church End	020032011
bfsawpjj	Ravensden, o/s Horse and Jockey	Church End	020032009
bfsajpmj	Ravensden, adj Oldways Road	Bedford Road	020032006
bfsdamwj	Ravensden, o/s Wayside Farm Park	Bedford Road	020032090
bfsdamgj	Ravensden, Cleat Hill (S-bound)	Cleat Hill	020032053
bfsamdwd	Brickhill, opp Mowsbury Car Park	Kimbolton Road	020035143
bfsamdwj	Brickhill, adj Parkstone Close	Wentworth Drive	020035145
bfsdampg	Woodside, opp Hailes Close	Wentworth Drive	020035560
bfsamdwp	Brickhill, adj Mowsbury Park Pavillion	Wentworth Drive	020035147
bfsdajwg	Salph End, Ravensden Road (S-bound)	Ravensden Road	020035533
bfsamtda	Salph End, o/s 34 Hookhams Lane	Hookhams Lane	020035303
bfsaptpm	Brickhill, opp Mowsbury Park Pavillion	Wentworth Drive	020035488
bfsaptdw	Woodside, opp Hamsterley Close	Norse Road	020035337
bfsaptdp	Woodside, opp Poppyfields	Norse Road	020035335
bfsamjaj	Woodside, o/s Norse Road Cemetery	Norse Road	020035200
bfsaptm	Goldington, opp Hudson Road	Norse Road	020035334
bfsampjd	Goldington, opp Caxton Road	Norse Road	020035269
bfsampgt	Goldington, opp Elms Farm Industrial Estate	Goldington Road	020035266
bfsampgm	Goldington, adj Waitrose	Goldington Road	020035264
bfsampga	Goldington, o/s The Wayfarer Hotel	Goldington Road	020035261
bfsampdp	Goldington, opp Goldington Green	Goldington Road	020035258
bfsamjmj	Goldington, opp Harvey Road	Goldington Road	020035222
bfsamjmw	Bedford, adj Dean Street	Goldington Green	020035225
bfsamjpd	Bedford, opp Fox and Hounds	Goldington Road	020035227
bfsamjpi	Bedford, opp Goldington Avenue	Goldington Road	020035229
bfsamadw	Bedford, St Peter's Street (W-bound)	St Peter's Street	020035057

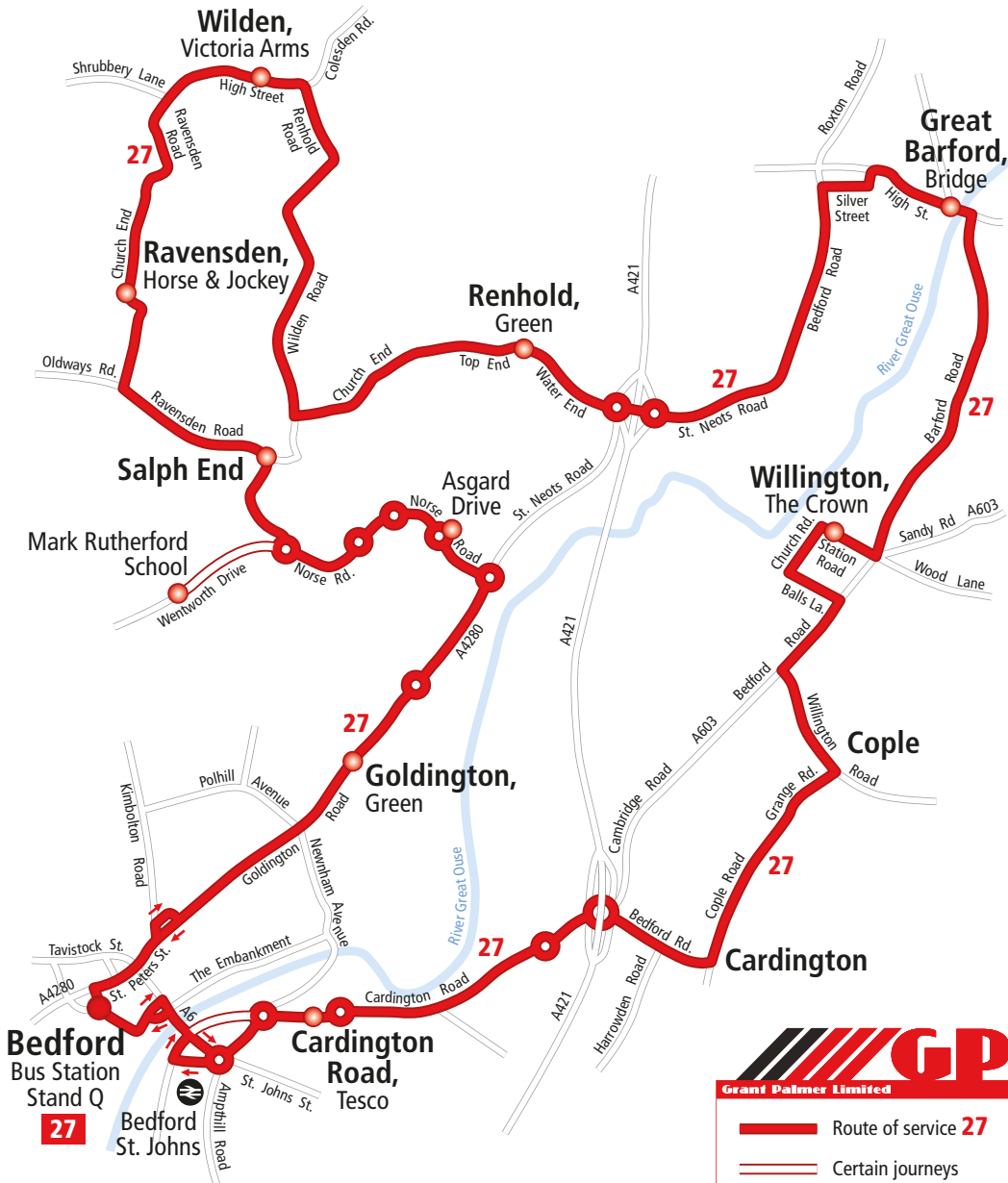


For times of the next departures from a particular stop you can use **traveline-txt** - by sending the SMS code to **84268**. Add the service number after the code if you just want a specific service - eg: **buctdgt 60**. The return message from **traveline-txt** will show the next three departures, and it currently costs 25p plus any message sending charge. Departure times will be real-time predictions where available, or scheduled departure times if not.

You can also get the same information by using the SMS code at [www.nextbuses.mobi](http://www.nextbuses.mobi) (only normal browsing charges apply) or through several iPhone or Android apps that offer access to **NextBuses**.

**NOTE: SMS codes are different in each direction. Make sure you choose the right direction from these lists.**

SMS Code	Stop Name	Street	ATCO Code
bfsdamwt	Bedford, Bus Station (Stop Q)		020035577
bfsamaga	Bedford, St Peter's Street (E-bound)	St Peter's Street	020035058
bfsamjgg	Bedford, adj Goldington Avenue	Goldington Road	020035228
bfsamjpa	Bedford, o/s Fox and Hounds	Goldington Road	020035226
bfsamjmt	Bedford, opp Dean Street	Goldington Green	020035224
bfsamjmp	Goldington, adj Harvey Road	Goldington Green	020035223
bfsampdw	Goldington, adj Goldington Green	Goldington Road	020035260
bfsampgj	Goldington, opp Waitrose	Goldington Road	020035263
bfsampgp	Goldington, adj Elms Farm Industrial Estate	Goldington Road	020035265
bfsampja	Goldington, adj Caxton Road	Norse Road	020035268
bfsampgw	Goldington, adj Hudson Road	Norse Road	020035267
bfsaptdt	Woodside, adj Poppyfields	Norse Road	020035336
bfsaptpm	Brickhill, opp Mowsbury Park Pavillion	Wentworth Drive	020035488
bfsdadpt	Salph End, o/s 2 Hookhams Lane	Hookhams Lane	020035304
bfsdajwa	Salph End, adj Brookside	Ravensden Road	020035531
bfsdajwj	Salph End, Ravensden Road (N-bound)	Ravensden Road	020035534
bfsawpjd	Ravensden, opp Horse and Jockey	Church End	020032008
bfsawpm	Ravensden, opp Vicarage Close	Church End	020032010
bfsawpjt	Ravensden, opp Crow Hill Farm	Ravensden Road	020032012
bfsawpma	Ravensden, o/s Redbrick Cottages	Ravensden Road	020032014
bfsawpmg	Wilden, Village Hall (E-bound)	High Street	020032016
bfsawmpm	Wilden, Village Centre (S-bound)	High Street	020032018
bfsamtdg	Renhold, opp 8 Church End	Church End	020035308
bfsdadtg	Renhold, o/s All Saints' Church	Church End	020035309
bfsdadtm	Renhold, adj Wood Lane	Top End	020035311
bfsdadtp	Renhold, o/s Three Horseshoes	Top End	020035314
bfsdadtw	Renhold, opp Becher Close	Green End	020035315
bfsdajtm	Renhold, adj The Green	Green End Lane	020035528
bfsajtga	Great Barford, opp The Cross	Bedford Road	020033101
bfsdamdt	Great Barford, opp Alban Middle School	Silver Street	020033019
bfsajtdp	Great Barford, o/s College Farm	High Street	020033093
bfsawtw	Great Barford, o/s All Saints Church	High Street	020033091
bfsawtwp	Willington, Crossroads (N-bound)	Station Road	020033027
bfsdamdm	Willington, opp Willington Lower School	Church Road	020033015
bfsajtam	Willington, opp Churchill Place	Church Road	020033024
bfsajtaj	Willington, adj Cople Turn	Bedford Road	020033022
bfsajtda	Cople, opp All Saints Road	Willington Road	020033020
bfsapwgm	Cople, opp All Saints Church	Grange Lane	020033900
bfsawtwd	Cople, opp Grange Farm	Grange Lane	020033002
bfsajptm	Cardington, adj Chapel Lane	Cople Road	020033004
bfsajptw	Cardington, opp Cottage Farm Nursery	Cople Road	020033006
bfsajpwd	Cardington, opp The Kings Arms	The Green	020033008
bfsawtwg	Cardington, opp St Marys Church	The Green	020033010
bfsajpwm	Cardington, opp The Vicarage	Bedford Road	020033012
bfsapdmd	Fenlake, o/s The Fenlake Anchor	Cardington Road	020035756
bfsapdmp	Fenlake, opp Tesco Cardington	Cardington Road	020035759
bfsapwgp	Bedford, o/s St Johns Centre	Rope Walk	020035493
bfsapmjt	Cauldwell, opp Kingsway Link	Kingsway	020035822
bfsapmjm	Cauldwell, o/s Bedford College	Cauldwell Street	020035817
bfsdaptj	Bedford, opp Bedford Girls School	Cardington Road	020035827
bfsapdpa	Bedford, opp Duckmill Lane	Cardington Road	020035762
bfsajwjp	Bedford, St Paul's Square (Arrivals)	St Paul's Square	020035025
bfsajwmd	Bedford, o/s Pilgrims House	Horne Lane	020035029

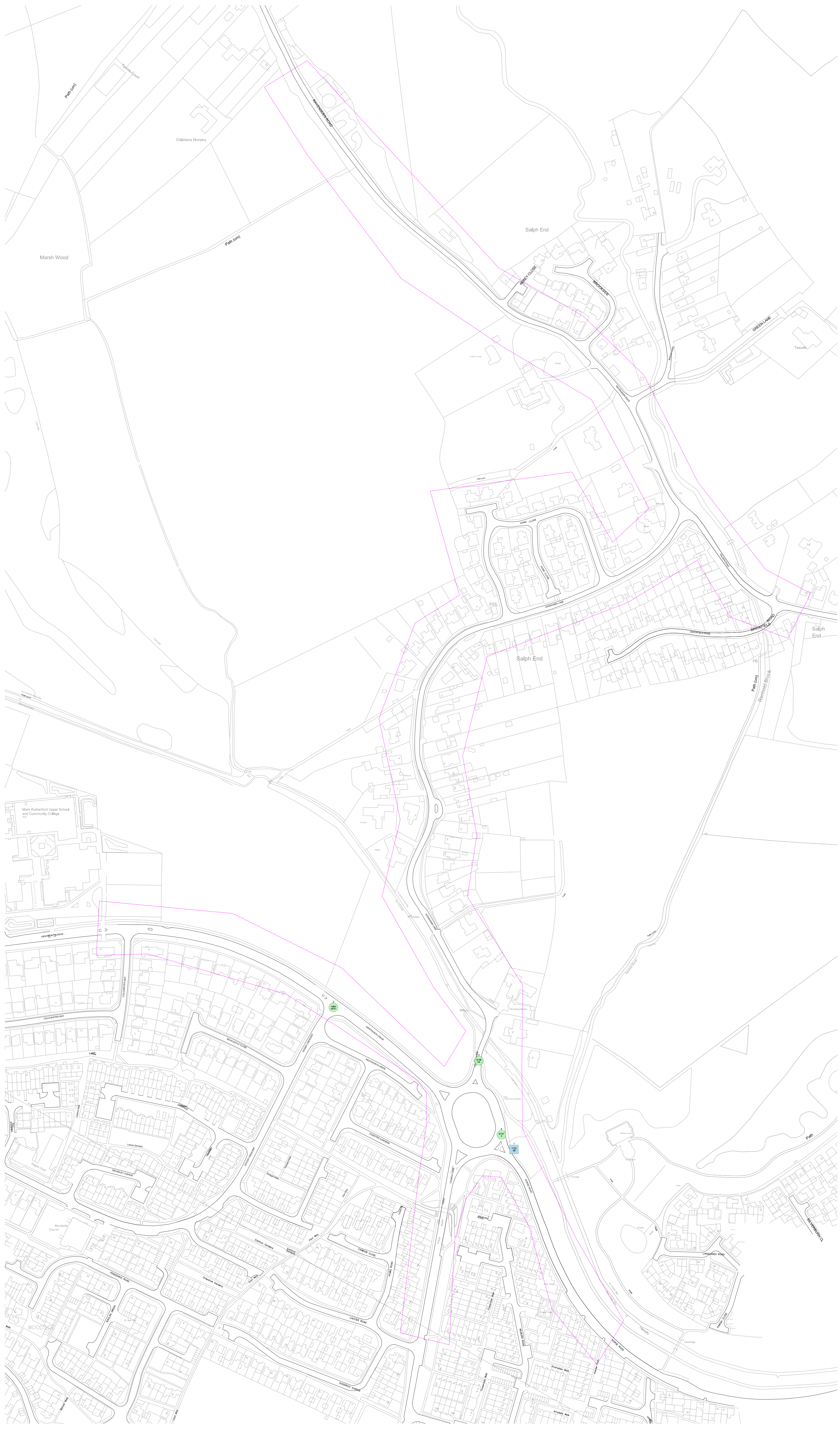


**Grant Palmer Limited**

- Route of service 27
- Certain journeys
- Route terminus
- Timing point
- Railway Station



**Appendix F**  
Accident Data





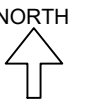
Accident Date BETWEEN '19-May-2014' AND '18-May-2019'

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
1	E06000055	112248	Serious	Tuesday	13/09/2016	23:08	507760/252080						
Location: NORSE ROAD UNSPECIFIED ROAD OR LOCATION 10 METRES SOUTH OF JUNCTION WITH CHURCH LANE C40 1st Rd: U0 2nd Rd: C40													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	R'dabt Give	Dark/lights lit	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Lt hand bend	SE	NW On main	Junt appr	No	None	Offside	Tree	Female	70	N/R
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Female	70	Serious	No	Not ped	Not ped	Not ped	Other			
2	1	Passenger	Male	76	Slight	Front	Not ped	Not ped	Not ped	Other			
Description: V1 has been travelling along Norse Road heading towards roundabout on Church Lane. V1 has left the carriageway into a small woodland area, where it has collided with a tree.													
User Information:					Contributory Factors: 503V001B 505V001B								
2	E06000055	14BA0537	Slight	Wednesday	11/06/2014	09:50	507560/252237						
Location: Uc Wentworth Drive Metres Uc Dover Crescent, Bedford, Bedfordshire 1st Rd: U 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	Mini-R Give	Daylight	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Bus or Coach	No	Right turn	S	E On main	Mid junction	No	None		None	Male	51	-ve
2	Car	No	Going ahead	E	W On main	Mid junction	No	None		None	Female	37	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Female	37	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V2 Trav West onto Rdbt. V1 a Bus, Trav North, turning right at Rdbt, Fails to Give Way to V2 and Collision Occurs.													
User Information:					Contributory Factors: 405V001A								
3	E06000055	313804	Slight	Friday	29/06/2018	08:08	507721/252178						
Location: HOOKHAMS LANE 1st Rd: U 2nd Rd:													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Single c'way	NotJCT	Daylight	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	S	N On main	Not at	No	None		None	Female	26	N/R
2	Pedal Cycle	No	Start	E	W On main	Not at	No	None		None	Male	12	N/A
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	12	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V1 was entering Hookhams Lane from the roundabout. On the other side of the road was a queue of traffic where a pedestrian crossing over the road has been covered by a white van. As V1 has been driving down Hookhams Lane, a 12 year old male on a bicycle (V2) has come out from behind the van into the road. Driver of V1 has a short period of time to react managing to brake but has collided with the male causing him to fall off his bicycle hitting his head, knee and ankle.													
User Information:					Contributory Factors: 801C001A 802C001B								
4	E06000055	67374	Slight	Monday	02/05/2016	09:15	507746/252096						
Location: NORSE ROAD UNSPECIFIED ROAD OR LOCATION CHURCH LANE C40 1st Rd: U0 2nd Rd: C40													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	R'dabt Give	Daylight	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	NW	SE On main	Leave r'about	No	None		None	Male	81	-ve
2	Pedal Cycle	No	Going ahead	N	S On main	Mid junction	No	None		None	Male	37	N/A
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	37	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V2 was travelling southbound from Hook Lane Renhold to Church Lane round the roundabout. V1 was travelling eastbound from Wentworth Drive to Norse Road. V2 was coming past the Norse Road junction, as v1 attempted to pull off the roundabout v1 pulled directly into v2's path causing him to fall off into the road.													
User Information:					Contributory Factors: 405V001A 403V001A 505V001B								



**Appendix G**

Hookhams Lane Access  
MAC drawing no. 248-TA11




**Notes**

1. Based on MSurv 'Topographical Survey' drawing number 1215/2272/1.
2. Based on Ordnance Survey mapping.

**Key**

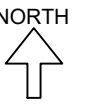
--- Visibility Splays - 2.4m x 43m

 <p>T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd</p>	<ul style="list-style-type: none"> <li>• Transport Assessments</li> <li>• Flood Risk Assessments</li> <li>• Highway Advice</li> <li>• Access Design</li> <li>• Drainage Strategies</li> <li>• Vehicle tracking</li> </ul>	<p>Client: Manor Oak Homes</p>	<p>Project: Land North of Hookhams Lane, Salph End</p>
		<p>Title: No. 25 Hookhams Lane - Access Option 1</p>	<p>Date: 29/08/19</p>
		<p>Drawing No: 248-TA11</p>	<p>Revision: A</p>
		<p>Scale: 1:500</p>	<p>Size: A3</p>



**Appendix H**

Ravensden Road Access  
MAC drawing no. 248-TA12




**Notes**

1. Based on MSurv 'Topographical Survey' drawing number 1215/2272/1.
2. Based on Ordnance Survey mapping.

**Key**

--- Visibility Splays - 2.4m x 43m



 T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd	<ul style="list-style-type: none"><li>• Transport Assessments</li><li>• Flood Risk Assessments</li><li>• Highway Advice</li><li>• Access Design</li><li>• Drainage Strategies</li><li>• Vehicle tracking</li></ul>	Client: Manor Oak Homes	Project: Land North of Hookhams Lane, Salph End
		Title: Ravensden Road Access	Date: 29/08/19
			Drw: MJA
			Chk: MJA
		Drawing No: 248-TA11	Revision: -
			Scale: 1:500
			Size: A3



## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : A - HOUSES PRIVATELY OWNED  
 MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	3 days
	HC HAMPSHIRE	3 days
	KC KENT	4 days
	SC SURREY	1 days
	WS WEST SUSSEX	6 days
03	SOUTH WEST	
	DC DORSET	1 days
	DV DEVON	3 days
	SM SOMERSET	1 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	2 days
	NF NORFOLK	3 days
	SF SUFFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	2 days
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	2 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	NY NORTH YORKSHIRE	6 days
	SY SOUTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	2 days
	GM GREATER MANCHESTER	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	DH DURHAM	1 days
	TW TYNE & WEAR	1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Secondary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Number of dwellings  
 Actual Range: 6 to 805 (units: )  
 Range Selected by User: 6 to 805 (units: )

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 20/11/18

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Monday	10 days
Tuesday	11 days
Wednesday	13 days
Thursday	11 days
Friday	7 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count	52 days
Directional ATC Count	0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Suburban Area (PPS6 Out of Centre)	25
Edge of Town	27

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Residential Zone	50
No Sub Category	2

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

## Secondary Filtering selection:

Use Class:

C3	52 days
----	---------

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	6 days
5,001 to 10,000	10 days
10,001 to 15,000	15 days
15,001 to 20,000	9 days
20,001 to 25,000	6 days
25,001 to 50,000	5 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*



## Secondary Filtering selection (Cont.):

Population within 5 miles:

5,001 to 25,000	5 days
25,001 to 50,000	3 days
50,001 to 75,000	7 days
75,001 to 100,000	13 days
100,001 to 125,000	2 days
125,001 to 250,000	16 days
250,001 to 500,000	5 days
500,001 or More	1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0	15 days
1.1 to 1.5	37 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

Yes	10 days
No	42 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present	52 days
-----------------	---------

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

1	CA-03-A-04	DETACHED		CAMBRI D G E S H I R E
	PETERBOROUGH			
	THORPE PARK ROAD			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:		9	
	<i>Survey date: TUESDAY</i>		<i>18/10/11</i>	<i>Survey Type: MANUAL</i>
2	CA-03-A-05	DETACHED HOUSES		CAMBRI D G E S H I R E
	EASTFIELD ROAD			
	PETERBOROUGH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:		28	
	<i>Survey date: MONDAY</i>		<i>17/10/16</i>	<i>Survey Type: MANUAL</i>
3	CH-03-A-08	DETACHED		C H E S H I R E
	WHITCHURCH ROAD			
	CHESTER			
	BOUGHTON HEATH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:		11	
	<i>Survey date: TUESDAY</i>		<i>22/05/12</i>	<i>Survey Type: MANUAL</i>
4	CH-03-A-09	TERRACED HOUSES		C H E S H I R E
	GREYSTOKE ROAD			
	MACCLESFIELD			
	HURDSFIELD			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		24	
	<i>Survey date: MONDAY</i>		<i>24/11/14</i>	<i>Survey Type: MANUAL</i>
5	DC-03-A-08	BUNGALOWS		D O R S E T
	HURSTDENE ROAD			
	BOURNEMOUTH			
	CASTLE LANE WEST			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		28	
	<i>Survey date: MONDAY</i>		<i>24/03/14</i>	<i>Survey Type: MANUAL</i>
6	DH-03-A-01	SEMI DETACHED		D U R H A M
	GREENFIELDS ROAD			
	BISHOP AUCKLAND			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:		50	
	<i>Survey date: TUESDAY</i>		<i>28/03/17</i>	<i>Survey Type: MANUAL</i>
7	DS-03-A-02	MIXED HOUSES		D E R B Y S H I R E
	RADBOURNE LANE			
	DERBY			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		371	
	<i>Survey date: TUESDAY</i>		<i>10/07/18</i>	<i>Survey Type: MANUAL</i>
8	DV-03-A-01	TERRACED HOUSES		D E V O N
	BRONSHILL ROAD			
	TORQUAY			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:		37	
	<i>Survey date: WEDNESDAY</i>		<i>30/09/15</i>	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

9	DV-03-A-02 MILLHEAD ROAD HONITON	HOUSES & BUNGALOWS	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 116 <i>Survey date: FRIDAY 25/09/15</i>		
	<i>Survey Type: MANUAL</i>		
10	DV-03-A-03 LOWER BRAND LANE HONITON	TERRACED & SEMI DETACHED	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 70 <i>Survey date: MONDAY 28/09/15</i>		
	<i>Survey Type: MANUAL</i>		
11	ES-03-A-02 SOUTH COAST ROAD PEACEHAVEN	PRIVATE HOUSING	EAST SUSSEX
	Edge of Town Residential Zone Total Number of dwellings: 37 <i>Survey date: FRIDAY 18/11/11</i>		
	<i>Survey Type: MANUAL</i>		
12	ES-03-A-03 SHEPHAM LANE POLEGATE	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total Number of dwellings: 212 <i>Survey date: MONDAY 11/07/16</i>		
	<i>Survey Type: MANUAL</i>		
13	ES-03-A-04 NEW LYDD ROAD CAMBER	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total Number of dwellings: 134 <i>Survey date: FRIDAY 15/07/16</i>		
	<i>Survey Type: MANUAL</i>		
14	GM-03-A-10 BUTT HILL DRIVE MANCHESTER PRESTWICH	DETACHED/SEMI	GREATER MANCHESTER
	Edge of Town Residential Zone Total Number of dwellings: 29 <i>Survey date: WEDNESDAY 12/10/11</i>		
	<i>Survey Type: MANUAL</i>		
15	HC-03-A-20 CANADA WAY LIPHOOK	HOUSES & FLATS	HAMPSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 62 <i>Survey date: TUESDAY 20/11/18</i>		
	<i>Survey Type: MANUAL</i>		
16	HC-03-A-21 PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS	TERRACED & SEMI-DETACHED	HAMPSHIRE
	Edge of Town Residential Zone Total Number of dwellings: 39 <i>Survey date: TUESDAY 13/11/18</i>		
	<i>Survey Type: MANUAL</i>		

LIST OF SITES relevant to selection parameters (Cont.)

17	HC-03-A-22 BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE Edge of Town Residential Zone Total Number of dwellings: 40 <i>Survey date: WEDNESDAY 31/10/18</i>	MIXED HOUSES HAMPSHIRE	<i>Survey Type: MANUAL</i>
18	KC-03-A-03 HYTHE ROAD ASHFORD WILLESBOROUGH Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 51 <i>Survey date: THURSDAY 14/07/16</i>	MIXED HOUSES & FLATS KENT	<i>Survey Type: MANUAL</i>
19	KC-03-A-04 KILN BARN ROAD AYLESFORD DITTON Edge of Town Residential Zone Total Number of dwellings: 110 <i>Survey date: FRIDAY 22/09/17</i>	SEMI-DETACHED & TERRACED KENT	<i>Survey Type: MANUAL</i>
20	KC-03-A-06 MARGATE ROAD HERNE BAY  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 363 <i>Survey date: WEDNESDAY 27/09/17</i>	MIXED HOUSES & FLATS KENT	<i>Survey Type: MANUAL</i>
21	KC-03-A-07 RECVLVER ROAD HERNE BAY  Edge of Town Residential Zone Total Number of dwellings: 288 <i>Survey date: WEDNESDAY 27/09/17</i>	MIXED HOUSES KENT	<i>Survey Type: MANUAL</i>
22	LN-03-A-03 ROOKERY LANE LINCOLN BOULTHAM Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 22 <i>Survey date: TUESDAY 18/09/12</i>	SEMI DETACHED LINCOLNSHIRE	<i>Survey Type: MANUAL</i>
23	MS-03-A-03 BEMPTON ROAD LIVERPOOL OTTERSPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 15 <i>Survey date: FRIDAY 21/06/13</i>	DETACHED MERSEYSIDE	<i>Survey Type: MANUAL</i>
24	NE-03-A-02 HANOVER WALK SCUNTHORPE  Edge of Town No Sub Category Total Number of dwellings: 432 <i>Survey date: MONDAY 12/05/14</i>	SEMI DETACHED & DETACHED NORTH EAST LINCOLNSHIRE	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

25	NF-03-A-01 YARMOUTH ROAD CAISTER-ON-SEA	SEMI DET. & BUNGALOWS		NORFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 27 <i>Survey date: TUESDAY 16/10/12</i>			
26	NF-03-A-02 DEREHAM ROAD NORWICH	HOUSES & FLATS		NORFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 98 <i>Survey date: MONDAY 22/10/12</i>			
27	NF-03-A-03 HALING WAY THETFORD	DETACHED HOUSES		NORFOLK
	Edge of Town Residential Zone Total Number of dwellings: 10 <i>Survey date: WEDNESDAY 16/09/15</i>			
28	NY-03-A-06 HORSEFAIR BOROUGHBRIDGE	BUNGALOWS & SEMI DET.		NORTH YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 115 <i>Survey date: FRIDAY 14/10/11</i>			
29	NY-03-A-08 NICHOLAS STREET YORK	TERRACED HOUSES		NORTH YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 21 <i>Survey date: MONDAY 16/09/13</i>			
30	NY-03-A-09 GRAMMAR SCHOOL LANE NORTHALLERTON	MIXED HOUSING		NORTH YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 52 <i>Survey date: MONDAY 16/09/13</i>			
31	NY-03-A-10 BOROUGHBRIDGE ROAD RIPON	HOUSES AND FLATS		NORTH YORKSHIRE
	Edge of Town No Sub Category Total Number of dwellings: 71 <i>Survey date: TUESDAY 17/09/13</i>			
32	NY-03-A-11 HORSEFAIR BOROUGHBRIDGE	PRIVATE HOUSING		NORTH YORKSHIRE
	Edge of Town Residential Zone Total Number of dwellings: 23 <i>Survey date: WEDNESDAY 18/09/13</i>			

LIST OF SITES relevant to selection parameters (Cont.)

33	NY-03-A-13	TERRACED HOUSES	NORTH YORKSHIRE
	CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 10 <i>Survey date: WEDNESDAY 10/05/17</i>		<i>Survey Type: MANUAL</i>
34	SC-03-A-04	DETACHED & TERRACED	SURREY
	HIGH ROAD BYFLEET  Edge of Town Residential Zone Total Number of dwellings: 71 <i>Survey date: THURSDAY 23/01/14</i>		<i>Survey Type: MANUAL</i>
35	SF-03-A-04	DETACHED & BUNGALOWS	SUFFOLK
	NORMANSTON DRIVE LOWESTOFT  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 7 <i>Survey date: TUESDAY 23/10/12</i>		<i>Survey Type: MANUAL</i>
36	SF-03-A-05	DETACHED HOUSES	SUFFOLK
	VALE LANE BURY ST EDMUNDS  Edge of Town Residential Zone Total Number of dwellings: 18 <i>Survey date: WEDNESDAY 09/09/15</i>		<i>Survey Type: MANUAL</i>
37	SH-03-A-05	SEMI -DETACHED/TERRACED	SHROPSHIRE
	SANDCROFT TELFORD SUTTON HILL Edge of Town Residential Zone Total Number of dwellings: 54 <i>Survey date: THURSDAY 24/10/13</i>		<i>Survey Type: MANUAL</i>
38	SH-03-A-06	BUNGALOWS	SHROPSHIRE
	ELLESMERE ROAD SHREWSBURY  Edge of Town Residential Zone Total Number of dwellings: 16 <i>Survey date: THURSDAY 22/05/14</i>		<i>Survey Type: MANUAL</i>
39	SM-03-A-01	DETACHED & SEMI	SOMERSET
	WEMBDON ROAD BRIDGWATER NORTHFIELD Edge of Town Residential Zone Total Number of dwellings: 33 <i>Survey date: THURSDAY 24/09/15</i>		<i>Survey Type: MANUAL</i>
40	ST-03-A-07	DETACHED & SEMI -DETACHED	STAFFORDSHIRE
	BEACONSIDE STAFFORD MARSTON GATE Edge of Town Residential Zone Total Number of dwellings: 248 <i>Survey date: WEDNESDAY 22/11/17</i>		<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

41	SY-03-A-01 A19 BENTLEY ROAD DONCASTER BENTLEY RISE Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 54 <i>Survey date: WEDNESDAY 18/09/13</i>	SEMI DETACHED HOUSES	SOUTH YORKSHIRE	<i>Survey Type: MANUAL</i>
42	TW-03-A-02 WEST PARK ROAD GATESHEAD  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 16 <i>Survey date: MONDAY 07/10/13</i>	SEMI-DETACHED	TYNE & WEAR	<i>Survey Type: MANUAL</i>
43	WK-03-A-01 ARLINGTON AVENUE LEAMINGTON SPA  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 6 <i>Survey date: FRIDAY 21/10/11</i>	TERRACED/SEMI /DET.	WARWICKSHIRE	<i>Survey Type: MANUAL</i>
44	WK-03-A-02 NARBERTH WAY COVENTRY POTTERS GREEN Edge of Town Residential Zone Total Number of dwellings: 17 <i>Survey date: THURSDAY 17/10/13</i>	BUNGALOWS	WARWICKSHIRE	<i>Survey Type: MANUAL</i>
45	WL-03-A-02 HEADLANDS GROVE SWINDON  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 27 <i>Survey date: THURSDAY 22/09/16</i>	SEMI DETACHED	WILTSHIRE	<i>Survey Type: MANUAL</i>
46	WO-03-A-07 TEASEL WAY WORCESTER CLAINES Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 146 <i>Survey date: TUESDAY 26/06/18</i>	MIXED HOUSES	WORCESTERSHIRE	<i>Survey Type: MANUAL</i>
47	WS-03-A-04 HILLS FARM LANE HORSHAM BROADBRIDGE HEATH Edge of Town Residential Zone Total Number of dwellings: 151 <i>Survey date: THURSDAY 11/12/14</i>	MIXED HOUSES	WEST SUSSEX	<i>Survey Type: MANUAL</i>
48	WS-03-A-05 UPPER SHOREHAM ROAD SHOREHAM BY SEA  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 48 <i>Survey date: WEDNESDAY 18/04/12</i>	TERRACED & FLATS	WEST SUSSEX	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

49	WS-03-A-06	MIXED HOUSES		WEST SUSSEX
	ELLIS ROAD			
	WEST HORSHAM			
	S BROADBRIDGE HEATH			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		805	
	<i>Survey date: THURSDAY</i>		<i>02/03/17</i>	<i>Survey Type: MANUAL</i>
50	WS-03-A-08	MIXED HOUSES		WEST SUSSEX
	ROUNDSTONE LANE			
	ANGMERING			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		180	
	<i>Survey date: THURSDAY</i>		<i>19/04/18</i>	<i>Survey Type: MANUAL</i>
51	WS-03-A-09	MIXED HOUSES & FLATS		WEST SUSSEX
	LITTLEHAMPTON ROAD			
	WORTHING			
	WEST DURRINGTON			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		197	
	<i>Survey date: THURSDAY</i>		<i>05/07/18</i>	<i>Survey Type: MANUAL</i>
52	WS-03-A-10	MIXED HOUSES		WEST SUSSEX
	TODDINGTON LANE			
	LITTLEHAMPTON			
	WICK			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		79	
	<i>Survey date: WEDNESDAY</i>		<i>07/11/18</i>	<i>Survey Type: MANUAL</i>

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*



TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED  
MULTI-MODAL TOTAL PEOPLE

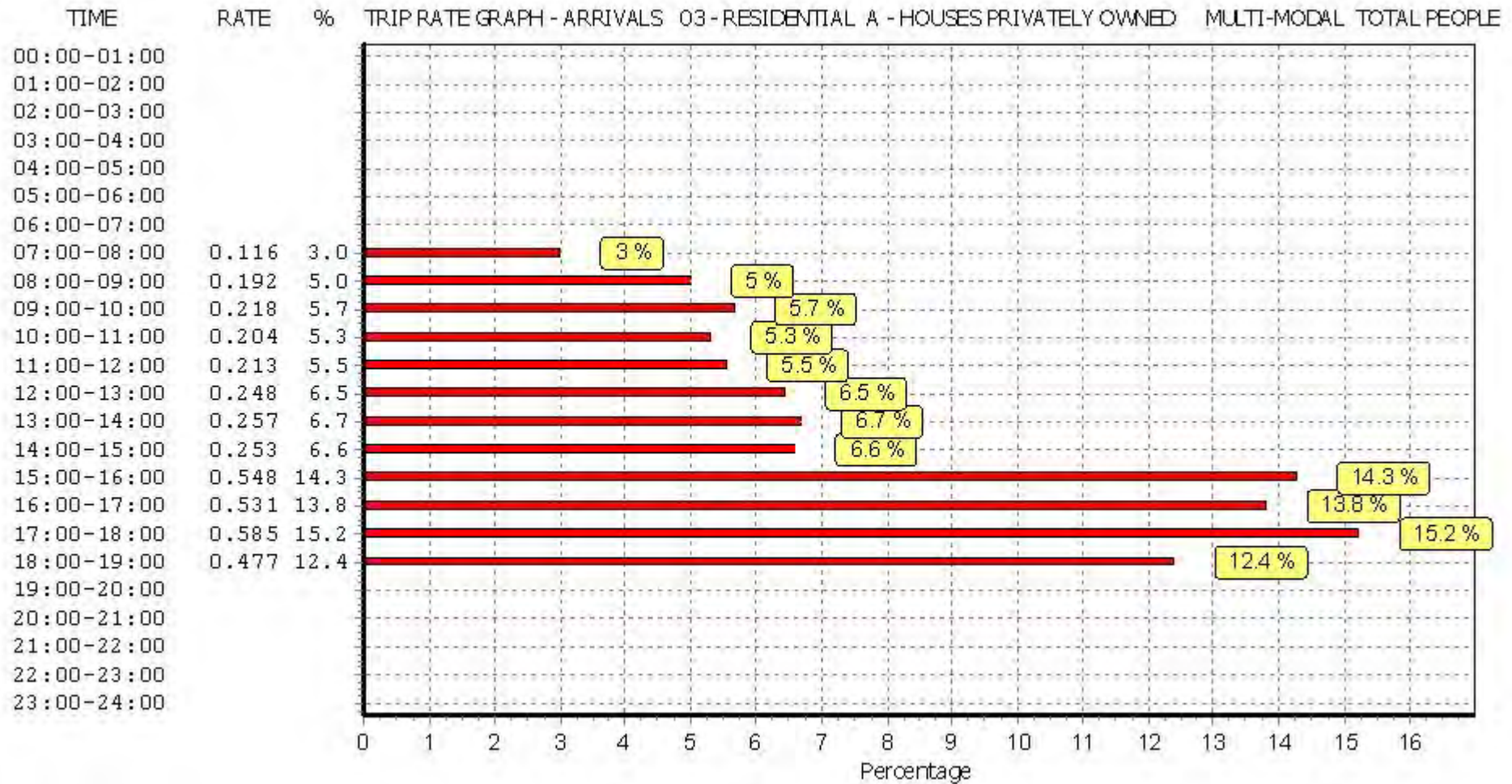
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

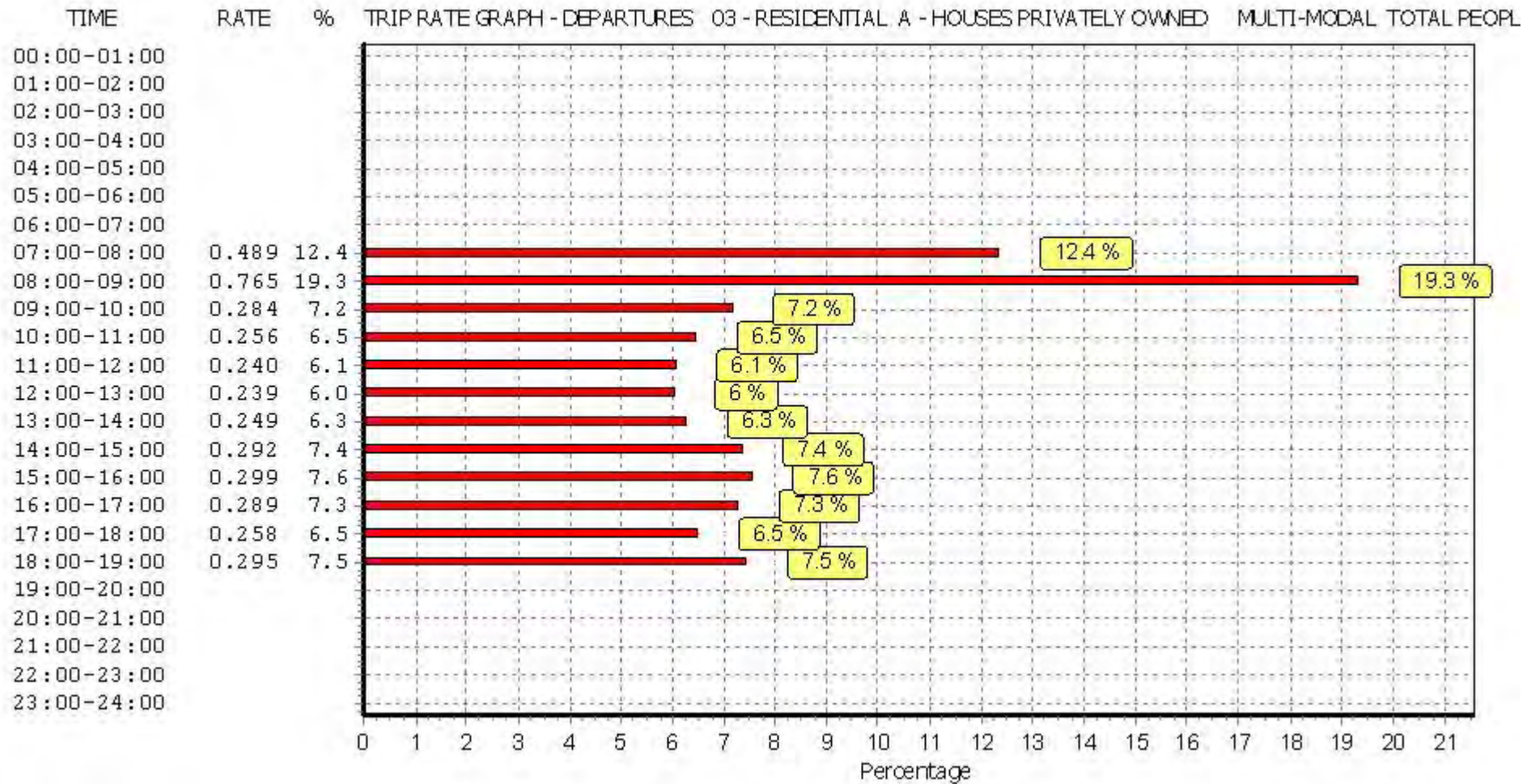
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	52	100	0.116	52	100	0.489	52	100	0.605
08:00 - 09:00	52	100	0.192	52	100	0.765	52	100	0.957
09:00 - 10:00	52	100	0.218	52	100	0.284	52	100	0.502
10:00 - 11:00	52	100	0.204	52	100	0.256	52	100	0.460
11:00 - 12:00	52	100	0.213	52	100	0.240	52	100	0.453
12:00 - 13:00	52	100	0.248	52	100	0.239	52	100	0.487
13:00 - 14:00	52	100	0.257	52	100	0.249	52	100	0.506
14:00 - 15:00	52	100	0.253	52	100	0.292	52	100	0.545
15:00 - 16:00	52	100	0.548	52	100	0.299	52	100	0.847
16:00 - 17:00	52	100	0.531	52	100	0.289	52	100	0.820
17:00 - 18:00	52	100	0.585	52	100	0.258	52	100	0.843
18:00 - 19:00	52	100	0.477	52	100	0.295	52	100	0.772
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			3.842			3.955			7.797

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

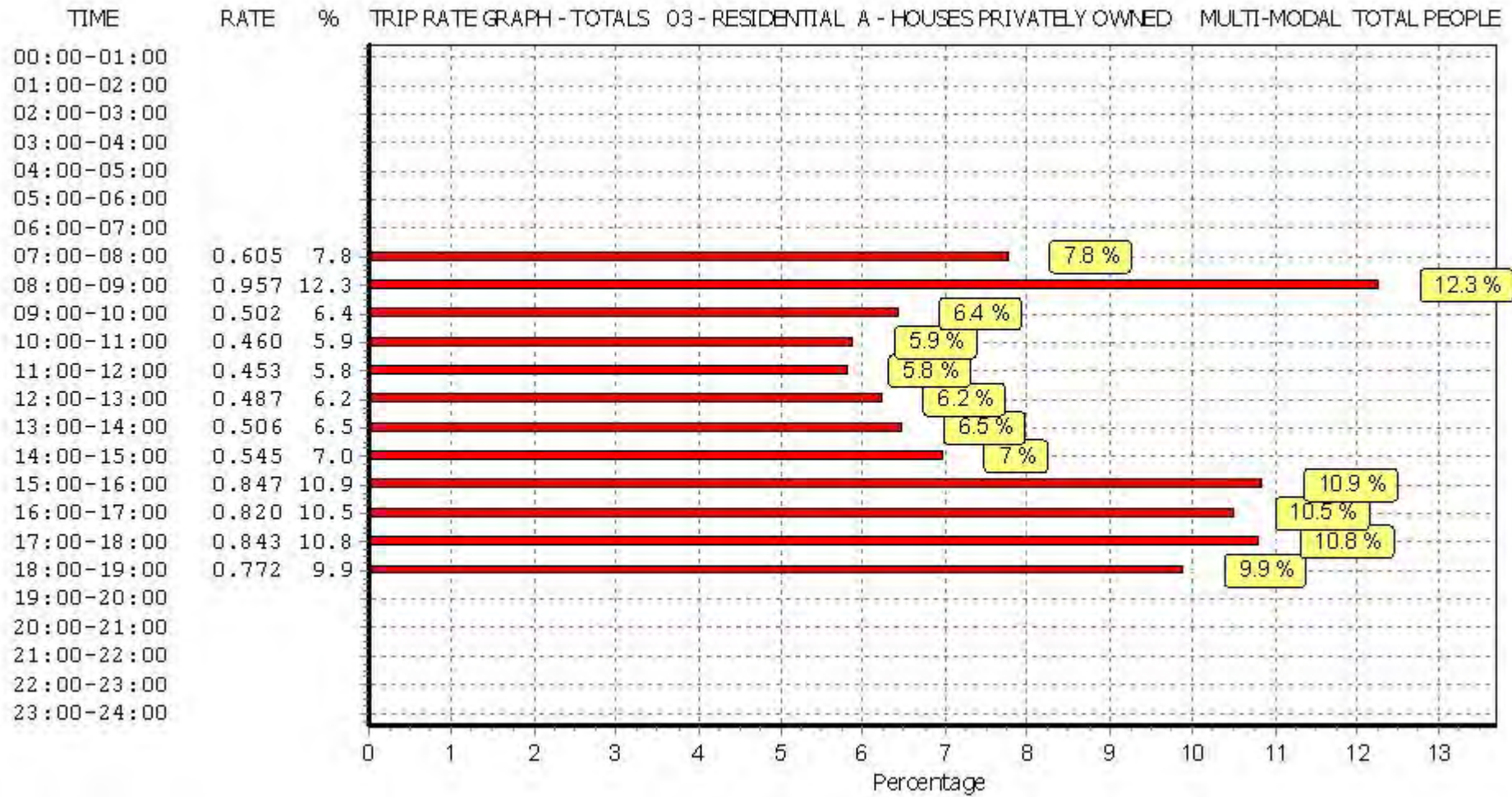
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.



*This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.*



*This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.*



*This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.*

Calculation Reference: AUDIT-864401-190717-0722

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION

Category : A - PRIMARY

## VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC HAMPSHIRE		1 days
03	SOUTH WEST		
	BR BRISTOL CITY		1 days
05	EAST MIDLANDS		
	DS DERBYSHIRE		1 days
	LE LEICESTERSHIRE		1 days
	NR NORTHAMPTONSHIRE		1 days
06	WEST MIDLANDS		
	WM WEST MIDLANDS		1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE NORTH EAST LINCOLNSHIRE		1 days
	WY WEST YORKSHIRE		2 days
08	NORTH WEST		
	CH CHESHIRE		1 days
	GM GREATER MANCHESTER		1 days
	LC LANCASHIRE		1 days
	MS MERSEYSIDE		1 days
09	NORTH		
	TW TYNE & WEAR		1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Secondary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Number of pupils  
 Actual Range: 147 to 621 (units: )  
 Range Selected by User: 79 to 657 (units: )

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 12/07/17

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Monday	4 days
Tuesday	4 days
Wednesday	1 days
Thursday	5 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count	14 days
Directional ATC Count	0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6
Edge of Town	8

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Residential Zone	13
No Sub Category	1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Secondary Filtering selection:

Use Class:

D1 14 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	3 days
10,001 to 15,000	1 days
15,001 to 20,000	4 days
20,001 to 25,000	1 days
25,001 to 50,000	4 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

5,001 to 25,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	7 days
500,001 or More	2 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0	7 days
1.1 to 1.5	7 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

Yes	2 days
No	12 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present	14 days
-----------------	---------

*This data displays the number of selected surveys with PTAL Ratings.*



LIST OF SITES relevant to selection parameters (Cont.)

10	NR-04-A-03 BOOTH LANE NORTH NORTHAMPTON	PRIMARY SCHOOL		NORTHAMPTONSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: 400 <i>Survey date: THURSDAY 24/03/16</i>			
11	TW-04-A-01 GLYNWOOD GARDENS GATESHEAD	PRIMARY SCHOOL		TYNE & WEAR
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: 260 <i>Survey date: MONDAY 07/10/13</i>			
12	WM-04-A-02 HAZEL ROAD BIRMINGHAM RUBERY	PRIMARY SCHOOL		WEST MIDLANDS
	Edge of Town Residential Zone Total Number of pupils: 234 <i>Survey date: TUESDAY 10/11/15</i>			
13	WY-04-A-01 SHAKESPEARE AVENUE LEEDS	PRIMARY SCHOOL		WEST YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: 370 <i>Survey date: THURSDAY 19/09/13</i>			
14	WY-04-A-02 TOWN STREET LEEDS	PRIMARY SCHOOL		WEST YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: 621 <i>Survey date: MONDAY 19/10/15</i>			

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*



TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY  
VEHICLES

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	14	355	0.065	14	355	0.024	14	355	0.089
08:00 - 09:00	14	355	0.324	14	355	0.245	14	355	0.569
09:00 - 10:00	14	355	0.029	14	355	0.051	14	355	0.080
10:00 - 11:00	14	355	0.013	14	355	0.011	14	355	0.024
11:00 - 12:00	14	355	0.023	14	355	0.014	14	355	0.037
12:00 - 13:00	14	355	0.023	14	355	0.028	14	355	0.051
13:00 - 14:00	14	355	0.016	14	355	0.023	14	355	0.039
14:00 - 15:00	14	355	0.080	14	355	0.023	14	355	0.103
15:00 - 16:00	14	355	0.172	14	355	0.259	14	355	0.431
16:00 - 17:00	14	355	0.051	14	355	0.089	14	355	0.140
17:00 - 18:00	14	355	0.026	14	355	0.037	14	355	0.063
18:00 - 19:00	14	355	0.011	14	355	0.017	14	355	0.028
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			0.833			0.821			1.654

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.*

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

#### Parameter summary

Trip rate parameter range selected:	147 - 621 (units: )
Survey date date range:	01/01/11 - 12/07/17
Number of weekdays (Monday-Friday):	14
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*



**Appendix J**  
Distribution

population units date method of travel to work usual residence

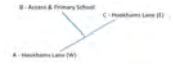
All usual residents aged 16 and over in employment the week before the census

Table with columns for Access 1 (A1), Access 2 (A2), Junction 1, Junction 2, Junction 3, and Junction 4, showing percentages for various directions and routes.

Table with columns for place of work, Area Description, Drivers, and Routing, listing specific locations and their corresponding road details.

Dwellings	AM Peak 08:00-09:00				PM Peak 17:00-18:00			
	Arrivals	Departures	Total	Total	Arrivals	Departures	Total	Total
School	420	136	282	228	209	188	397	397
Dwellings	14	2	9	11	7	3	10	10

**A1 Access to Hookhams Lane**



**Residential - 500 dwellings**

%	A	B	C
A	66%	66%	20%
B			20%
C			20%

AM	A	B	C
A	173	43	52
B			13
C			15

PM	A	B	C
A	58	132	18
B			40
C			15

**School - 420 Pupils**

%	A	B	C
A	20%	20%	20%
B	20%	20%	20%
C			20%

AM	A	B	C
A	21	27	21
B			27
C			21

PM	A	B	C
A	3	2	3
B			3
C			2

**Total**

AM	A	B	C
A	0	21	0
B	0	0	73
C	0	0	40

PM	A	B	C
A	0	134	0
B	0	0	73
C	0	0	42

**Residential - 14 dwellings**

%	A	B	C
A	66%	66%	20%
B			20%
C			20%

AM	A	B	C
A	2	1	1
B			5
C			5

PM	A	B	C
A	2	5	0
B			5
C			0

**A2 Access to Ravensden Rd**



%	A	B	C
A			14%
B			14%
C	29%		

AM	A	B	C
A	0	0	37
B	0	0	9
C	0	0	28

PM	A	B	C
A	0	0	12
B	0	0	12
C	0	0	28

%	A	B	C
A			14%
B			14%
C	29%		

AM	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

PM	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

%	A	B	C
A			14%
B			14%
C	29%		

AM	A	B	C
A	0	0	1
B	0	0	0
C	0	0	0

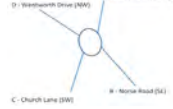
PM	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

%	A	B	C
A			14%
B			14%
C	29%		

AM	A	B	C
A	0	0	1
B	0	0	0
C	0	0	0

PM	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

**J1: Hookhams Lane / Noise Road / Church Lane / Wentworth Drive**



%	A	B	C	D
A	24%	24%	21%	20%
B	21%			
C				
D	35%			

AM	A	B	C	D
A	64	56	52	52
B	16			
C	14			
D	13			

PM	A	B	C	D
A	22	15	17	17
B	49			
C	43			
D	35			

%	A	B	C	D
A	5%	5%	5%	5%
B	5%			
C	5%			
D	5%			

AM	A	B	C	D
A	5	5	5	5
B	7			
C	7			
D	7			

PM	A	B	C	D
A	1	1	1	1
B	1			
C	1			
D	1			

AM	A	B	C	D
A	69	61	57	57
B	23	0	0	0
C	21	0	0	0
D	20	0	0	0

PM	A	B	C	D
A	22	20	18	18
B	50	0	0	0
C	43	0	0	0
D	40	0	0	0

%	A	B	C	D
A	24%	24%	21%	20%
B	21%			
C				
D	35%			

AM	A	B	C	D
A	2	2	2	2
B	1			
C	0			
D	0			

PM	A	B	C	D
A	1	1	1	1
B	2			
C	1			
D	1			

**J2: Wentworth Drive / Putnoe Lane**



%	A	B	C
A	11%		9%
B	11%		
C	9%		

AM	A	B	C
A	28	22	22
B	7		
C	6		

PM	A	B	C
A	10	8	8
B	33		
C	17		

%	A	B	C
A	11%		9%
B	11%		
C	9%		

AM	A	B	C
A	0	28	22
B	7	0	0
C	6	0	0

PM	A	B	C
A	0	10	8
B	32	0	0
C	17	0	0

%	A	B	C
A	11%		9%
B	11%		
C	9%		

AM	A	B	C
A	1	1	1
B	0		
C	0		

PM	A	B	C
A	0	2	0
B	1	0	0
C	1	0	0

%	A	B	C
A	11%		9%
B	11%		
C	9%		

AM	A	B	C
A	1	1	1
B	0		
C	0		

PM	A	B	C
A	0	2	0
B	1	0	0
C	1	0	0

**J3: Noise Rd / A4280 St Neots Road / A4280 Goldington Rd**



%	A	B	C
A			20%
B			20%
C	20%		

AM	A	B	C
A		13	
B			13
C	54		

PM	A	B	C
A			41
B			18
C	18		

%	A	B	C
A			20%
B			20%
C	20%		

AM	A	B	C
A	0	13	
B	0		13
C	54	0	0

PM	A	B	C
A	0	0	41
B	0	0	18
C	18	0	0

%	A	B	C
A			20%
B			20%
C	20%		

AM	A	B	C
A	0	13	
B	0		13
C	54	0	0

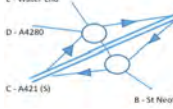
PM	A	B	C
A	0	0	41
B	0	0	18
C	18	0	0

%	A	B	C
A			20%
B			20%
C	20%		

AM	A	B	C
A	0	0	0
B	0	0	0
C	2	0	0

PM	A	B	C
A	0	0	1
B	0	0	0
C	1	0	0

**J4: A421 (N) / St Neots Rd / A421 (S) / A4280**



%	A	B	C	D	E
A				6%	6%
B				3%	3%
C				21%	13%
D	6%	3%	11%		
E	6%	3%	11%		

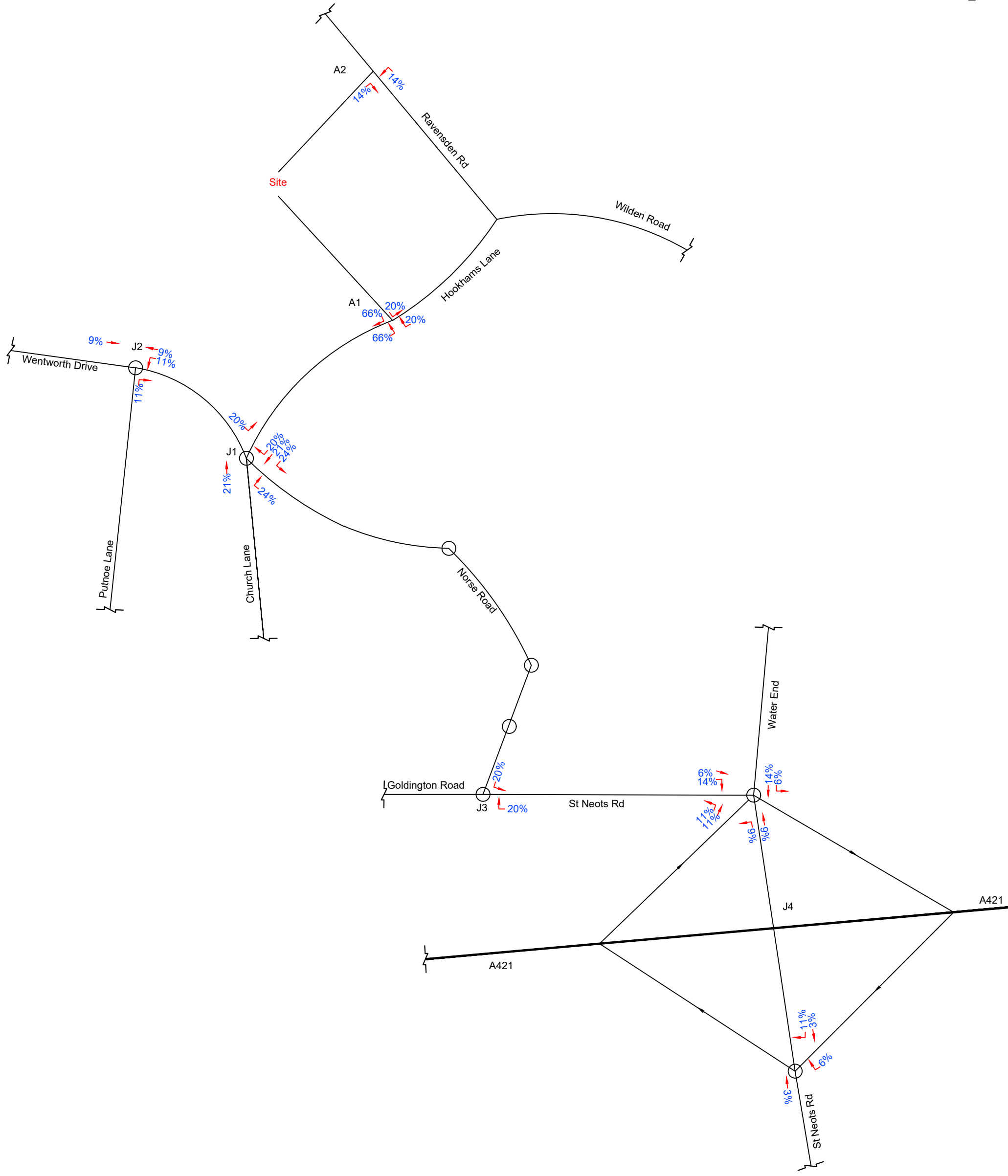
AM	A	B	C	D	E
A				4	4
B				2	2
C				7	7
D	16	9	29		
E	16	9	29		

PM	A	B	C	D	E
A				12	12
B				7	7
C				22	22
D	5	3	10		
E	5	3	10		


%	A	B	C	D
---	---	---	---	---

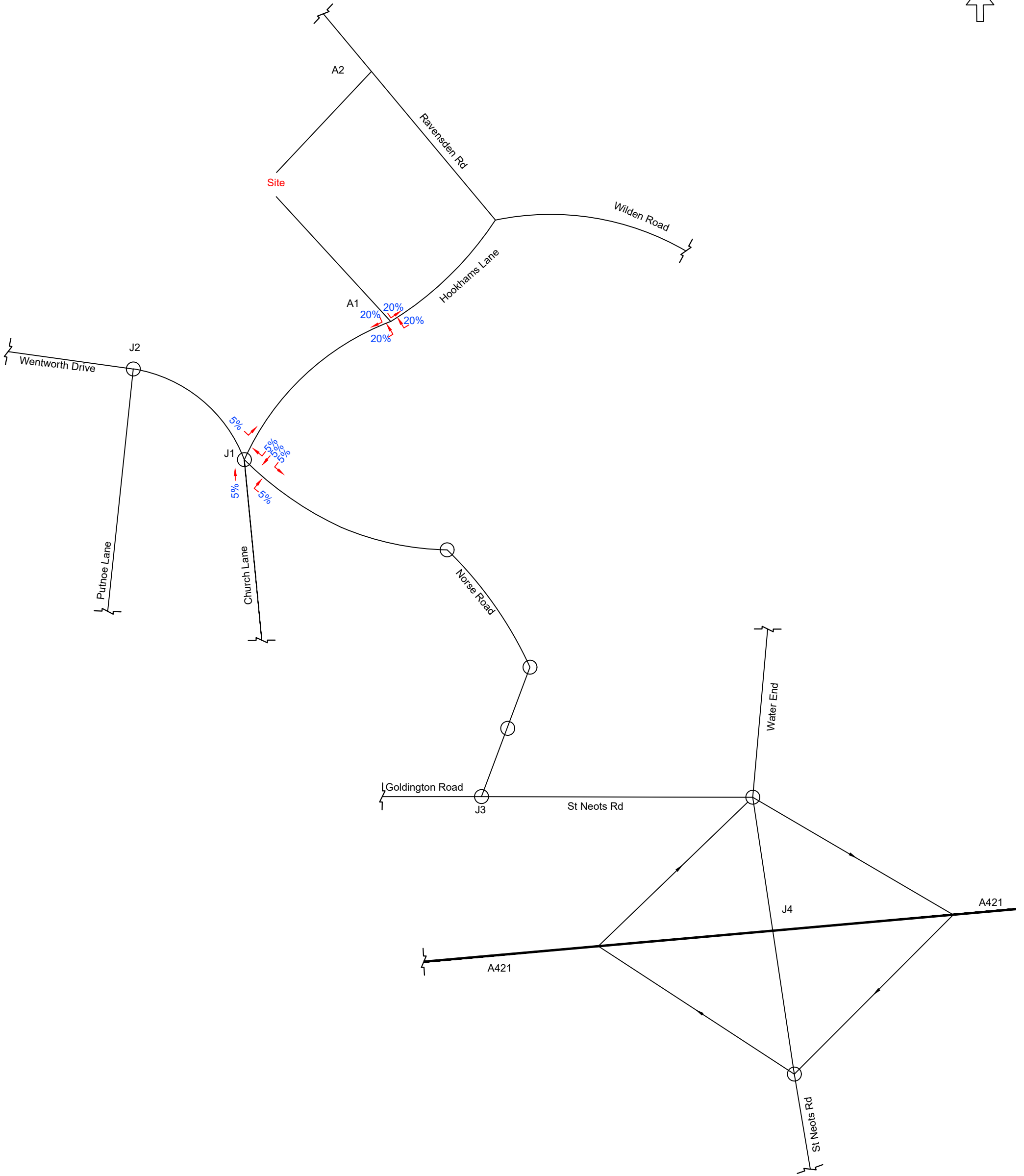


**Appendix K**  
Vehicle Movement Diagrams




- Junctions:**
- A1: Hookhams Lane Access
  - A2: Ravensden Road Access
  - J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
  - J2: Wentworth Drive / Putnoe Lane
  - J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
  - J4: A421 / St Neots Road / A4280

 <p>T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd</p>	<ul style="list-style-type: none"> <li>• Transport Assessments</li> <li>• Flood Risk Assessments</li> <li>• Highway Advice</li> <li>• Access Design</li> <li>• Drainage Strategies</li> <li>• Vehicle tracking</li> </ul>	Client: Manor Oak Homes	Project: Land north of Hookhams Ln Salph End	
		Title: Vehicle Distribution - Dwellings		Date: 29/08/19
		Drawing No: 143-TA25		Revision: -
				Drw: MJA Chk: MJA Scale: NTS Size: A3

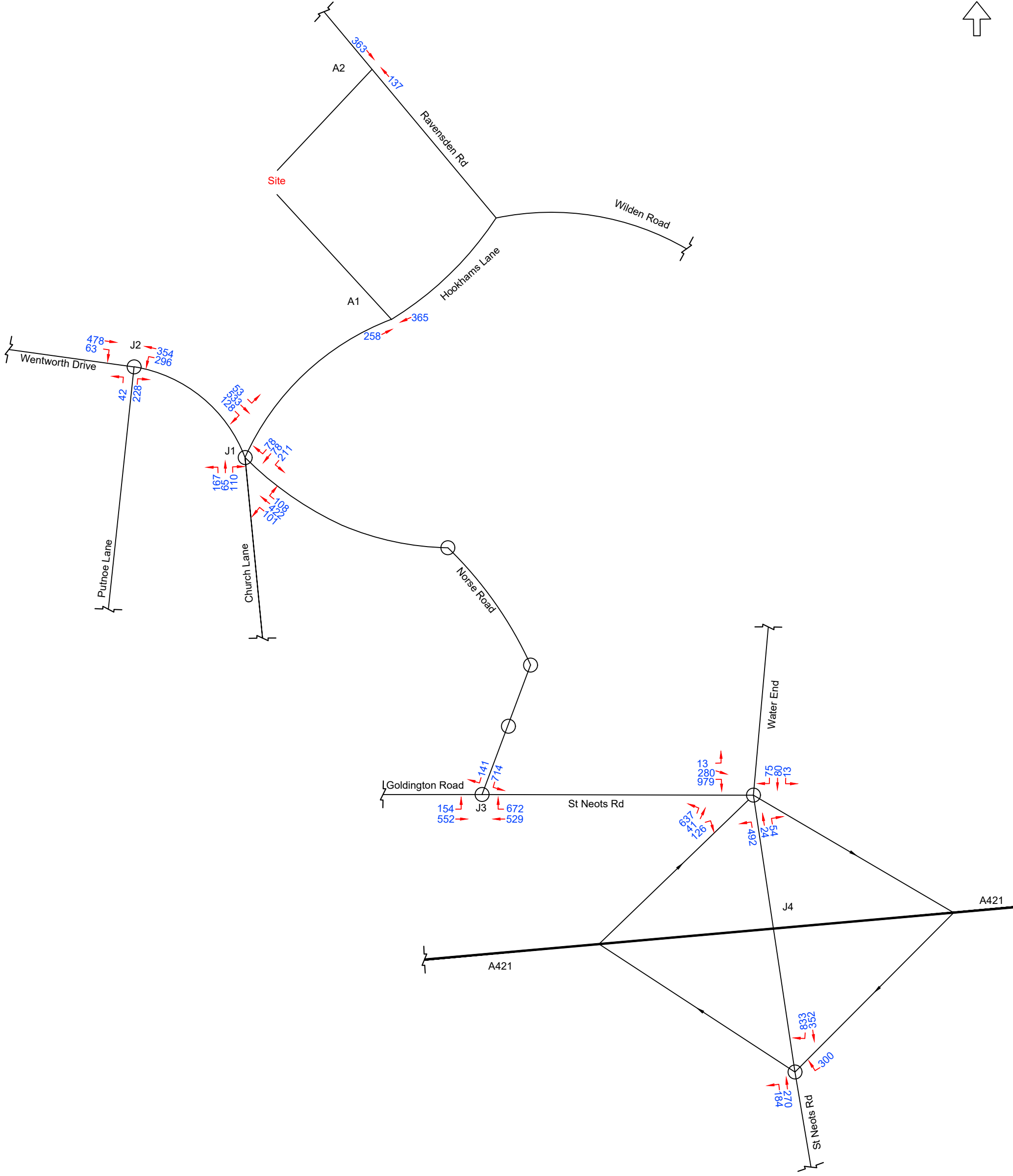


**Junctions:**

- A1: Hookhams Lane Access
- A2: Ravensden Road Access
- J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
- J2: Wentworth Drive / Putnoe Lane
- J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
- J4: A421 / St Neots Road / A4280

 <b>T: 01604 340544 Northampton Office</b> <b>E: info@mac-ltd.co.uk W: mac-ltd.co.uk</b> Martin Andrews Consulting Ltd	<ul style="list-style-type: none"> <li>• Transport Assessments</li> <li>• Flood Risk Assessments</li> <li>• Highway Advice</li> <li>• Access Design</li> <li>• Drainage Strategies</li> <li>• Vehicle tracking</li> </ul>	Client: Manor Oak Homes	Project: Land north of Hookhams Ln Salph End	
		Title: Vehicle Distribution - School		Date: 29/08/19
		Drawing No: 143-TA26		Revision: -
				Drw: MJA
		Scale: NTS	Size: A3	



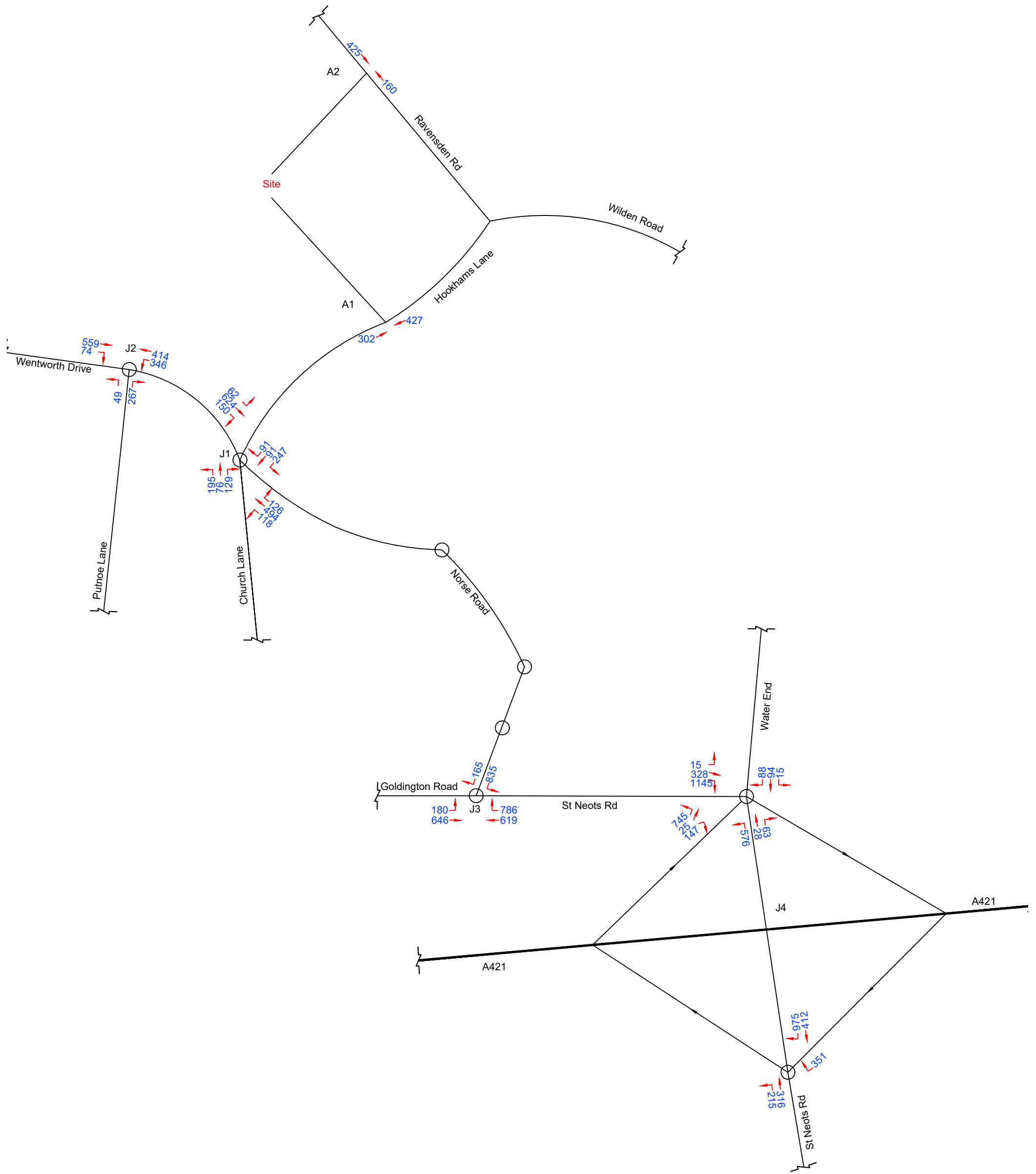


- Junctions:**
- A1: Hookhams Lane Access
  - A2: Ravensden Road Access
  - J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
  - J2: Wentworth Drive / Putnoe Lane
  - J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
  - J4: A421 / St Neots Road / A4280

T: 01604 340544 Northampton Office  
 E: info@mac-ltd.co.uk W: mac-ltd.co.uk  
 Martin Andrews Consulting Ltd


- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

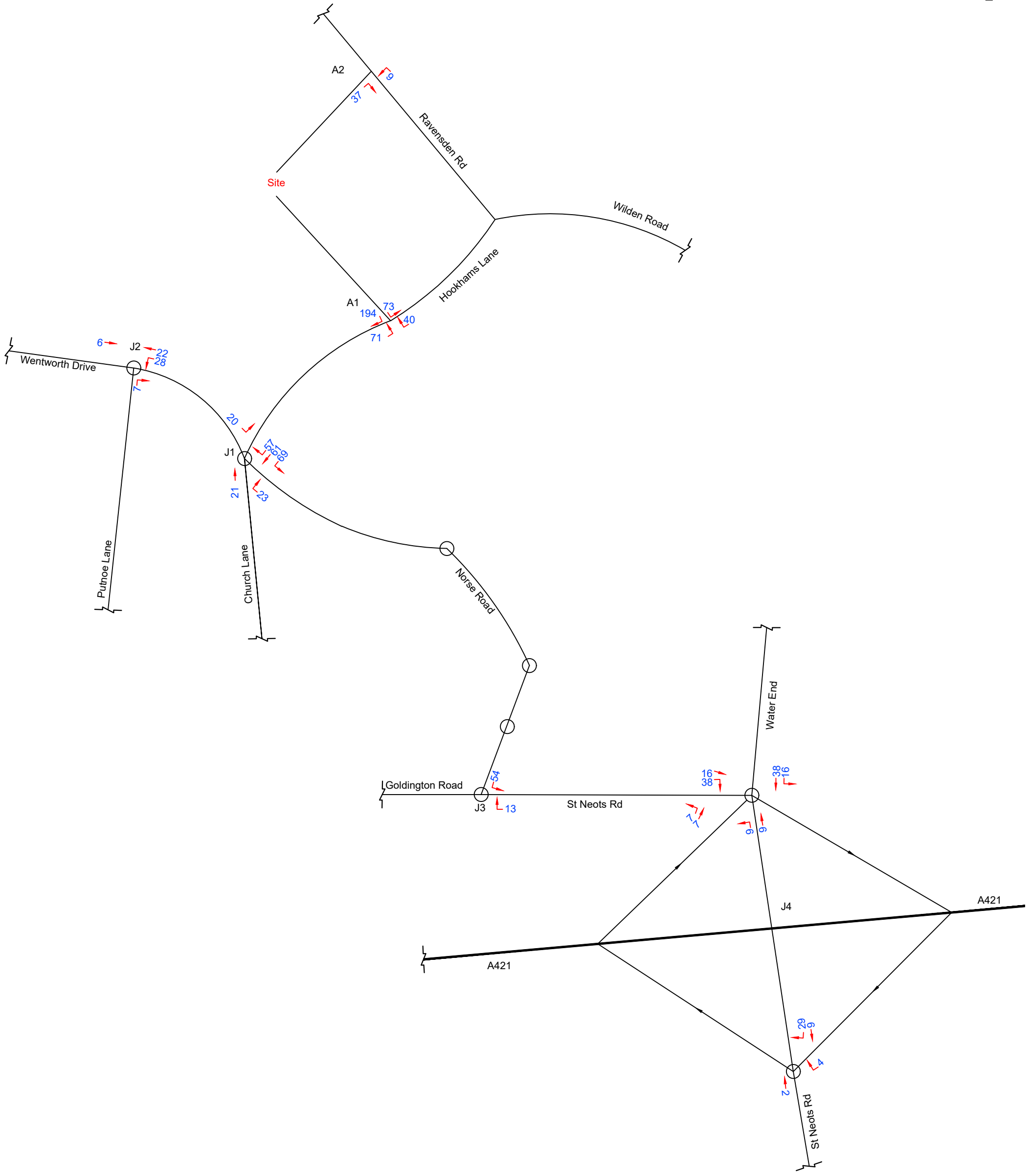
Client: Manor Oak Homes	Project: Land north of Hookhams Ln Salph End	
Title: Vehicle Trip Movement Diagram 2017 - AM Peak Background	Date: 29/08/19	Drw: MJA
Drawing No: 143-TA30	Revision: -	Chk: MJA
		Scale: NTS
		Size: A3



**Junctions:**

- A1: Hookhams Lane Access
- A2: Ravensden Road Access
- J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
- J2: Wentworth Drive / Putnoe Lane
- J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
- J4: A421 / St Neots Road / A4280

 <p><b>T: 01604 340544 Northampton Office</b>  <b>E: info@mac-ltd.co.uk W: mac-ltd.co.uk</b>          Martin Andrews Consulting Ltd</p>	<ul style="list-style-type: none"> <li>• Transport Assessments</li> <li>• Flood Risk Assessments</li> <li>• Highway Advice</li> <li>• Access Design</li> <li>• Drainage Strategies</li> <li>• Vehicle tracking</li> </ul>	<p><b>Client:</b> Manor Oak Homes</p>	<p><b>Project:</b> Land north of Hookhams Ln Salph End</p>
	<p><b>Title:</b> Vehicle Trip Movement Diagram 2030 - AM Peak Background</p>		<p><b>Date:</b> 29/08/19</p>
	<p><b>Drawing No:</b> 143-TA31</p>		<p><b>Revision:</b> -</p>
	<p><b>Scale:</b> NTS</p>		<p><b>Size:</b> A3</p>



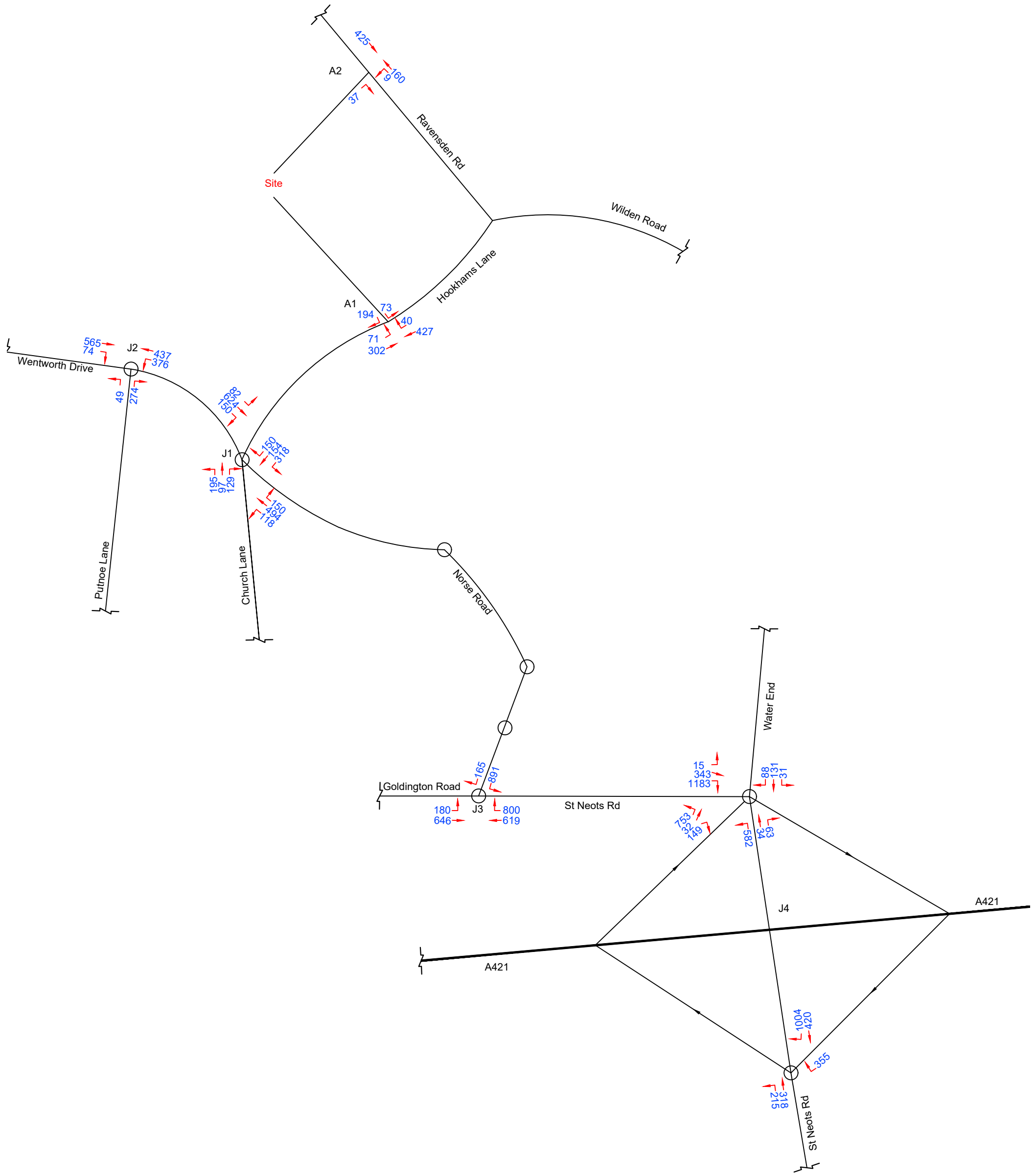
**Junctions:**

- A1: Hookhams Lane Access
- A2: Ravensden Road Access
- J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
- J2: Wentworth Drive / Putnoe Lane
- J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
- J4: A421 / St Neots Road / A4280

T: 01604 340544 Northampton Office  
 E: info@mac-ltd.co.uk W: mac-ltd.co.uk  
 Martin Andrews Consulting Ltd

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes		Project: Land north of Hookhams Ln Salph End	
Title: Vehicle Trip Movement Diagram 2030 - AM Peak Development		Date: 29/08/19	Drw: MJA
Drawing No: 143-TA33		Revision: -	Scale: NTS
			Size: A3



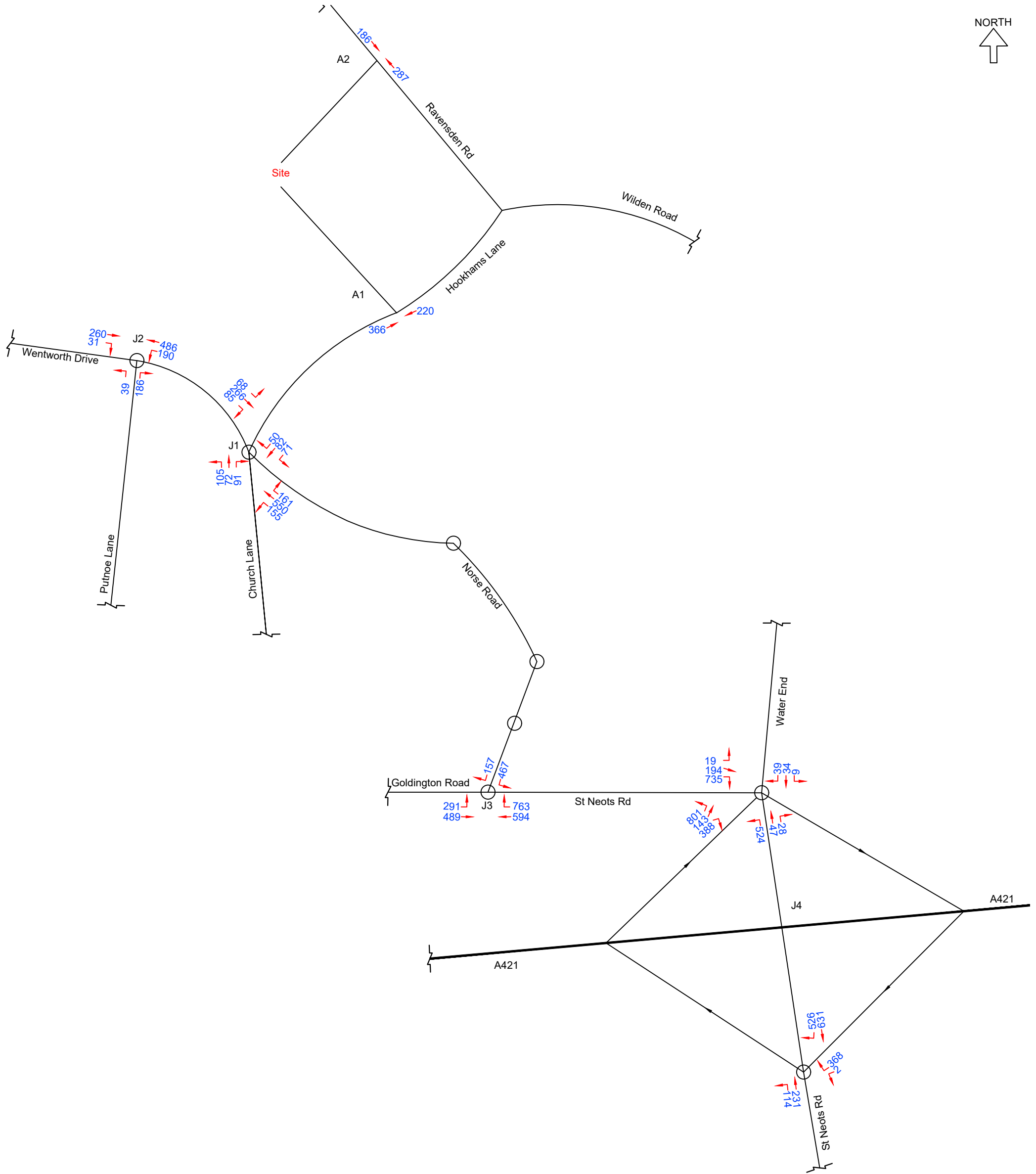
**Junctions:**

- A1: Hookhams Lane Access
- A2: Ravensden Road Access
- J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
- J2: Wentworth Drive / Putnoe Lane
- J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
- J4: A421 / St Neots Road / A4280

T: 01604 340544 Northampton Office  
 E: info@mac-ltd.co.uk W: mac-ltd.co.uk  
 Martin Andrews Consulting Ltd

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes		Project: Land north of Hookhams Ln Salph End	
Title: Vehicle Trip Movement Diagram 2030 - AM Peak Background - Committed - Development		Date: 29/08/19	Drw: MJA
		Chk: MJA	Scale: NTS
Drawing No: 143-TA34		Revision: -	Size: A3



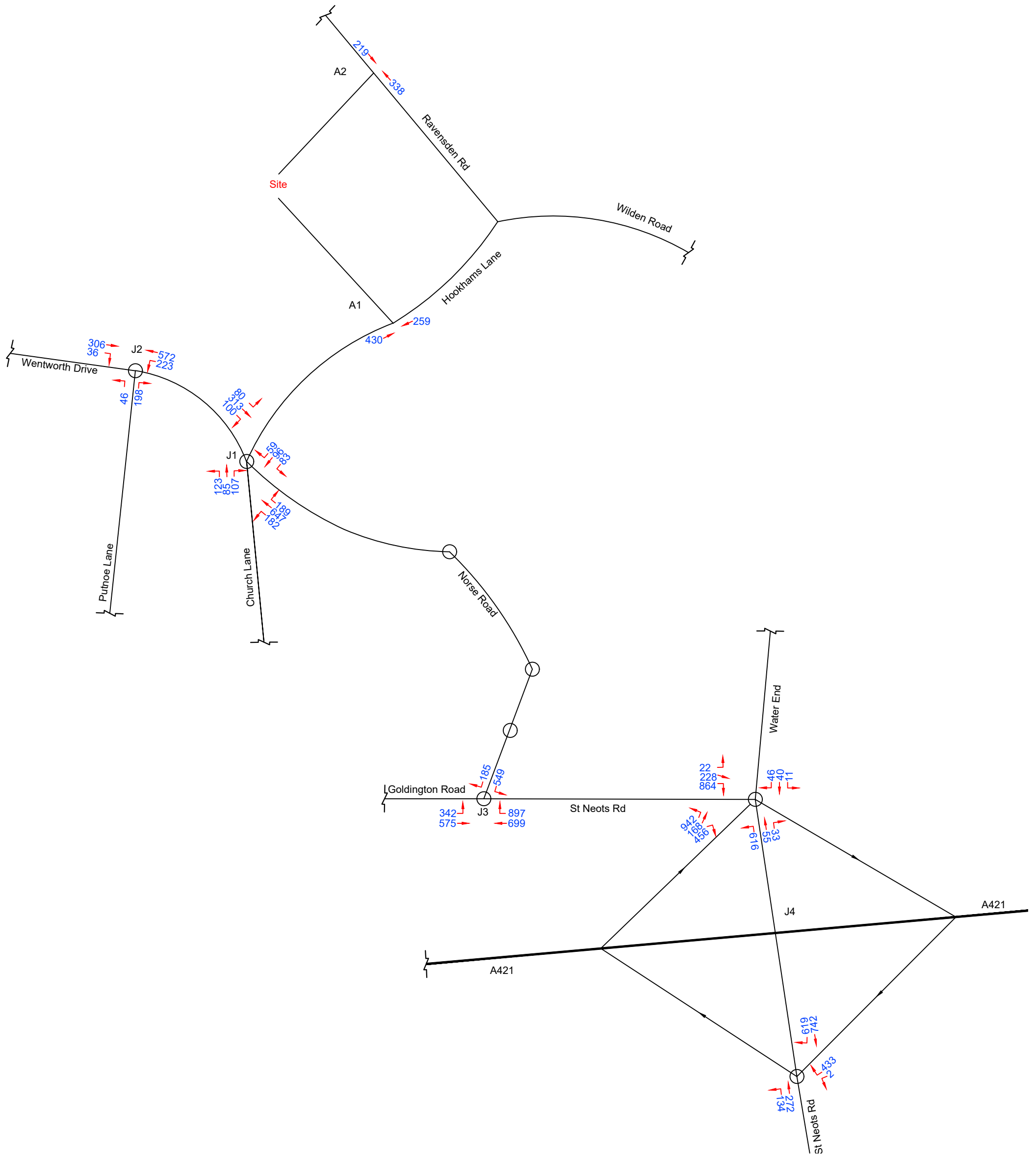
**Junctions:**  
A1: Hookhams Lane Access  
A2: Ravensden Road Access  
J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive  
J2: Wentworth Drive / Putnoe Lane  
J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road  
J4: A421 / St Neots Road / A4280



**T: 01604 340544 Northampton Office**  
**E: info@mac-ltd.co.uk W: mac-ltd.co.uk**  
Martin Andrews Consulting Ltd


- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

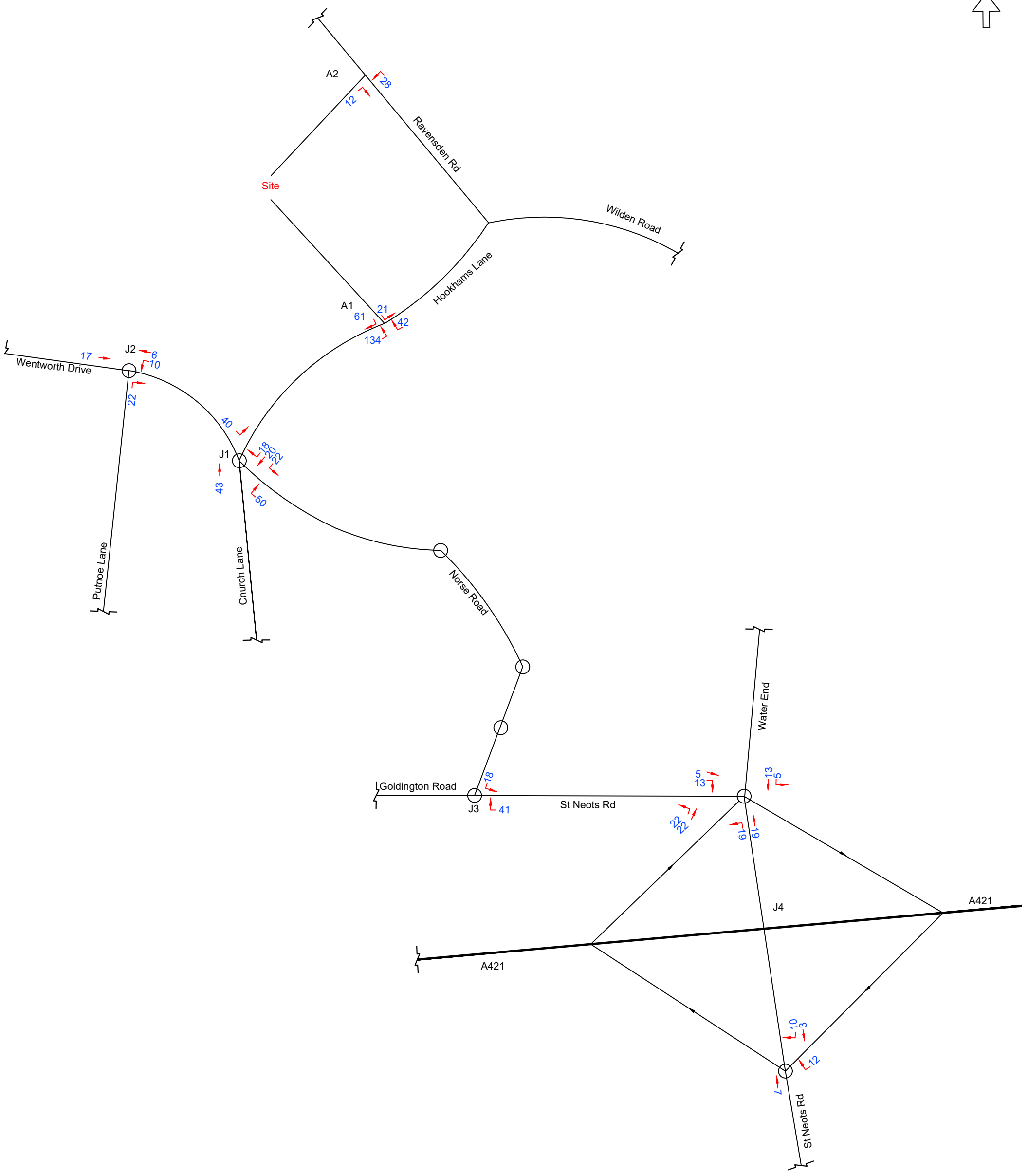
<b>Client:</b> Manor Oak Homes	<b>Project:</b> Land north of Hookhams Ln Salph End	
<b>Title:</b> Vehicle Trip Movement Diagram 2017 - PM Peak Background	<b>Date:</b> 29/08/19	<b>Drw:</b> MJA
<b>Drawing No:</b> 143-TA40	<b>Revision:</b> -	<b>Chk:</b> MJA
		<b>Scale:</b> NTS
		<b>Size:</b> A3



**Junctions:**

- A1: Hookhams Lane Access
- A2: Ravensden Road Access
- J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
- J2: Wentworth Drive / Putnoe Lane
- J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
- J4: A421 / St Neots Road / A4280

 <b>T: 01604 340544 Northampton Office</b> <b>E: info@mac-ltd.co.uk W: mac-ltd.co.uk</b> Martin Andrews Consulting Ltd	<ul style="list-style-type: none"> <li>• Transport Assessments</li> <li>• Flood Risk Assessments</li> <li>• Highway Advice</li> <li>• Access Design</li> <li>• Drainage Strategies</li> <li>• Vehicle tracking</li> </ul>	<b>Client:</b> Manor Oak Homes	<b>Project:</b> Land north of Hookhams Ln Salph End
	<b>Title:</b> Vehicle Trip Movement Diagram 2030 - PM Peak Background		<b>Date:</b> 29/08/19
	<b>Drawing No:</b> 143-TA41		<b>Revision:</b> -
			<b>Drw:</b> MJA <b>Chk:</b> MJA <b>Scale:</b> NTS <b>Size:</b> A3



**Junctions:**

- A1: Hookhams Lane Access
- A2: Ravensden Road Access
- J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
- J2: Wentworth Drive / Putnoe Lane
- J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
- J4: A421 / St Neots Road / A4280



T: 01604 340544 Northampton Office  
 E: info@mac-ltd.co.uk W: mac-ltd.co.uk  
 Martin Andrews Consulting Ltd

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes

Project: Land north of Hookhams Ln Salph End

Title: Vehicle Trip Movement Diagram  
 2030 - PM Peak  
 Development

Date: 29/08/19

Drw: MJA

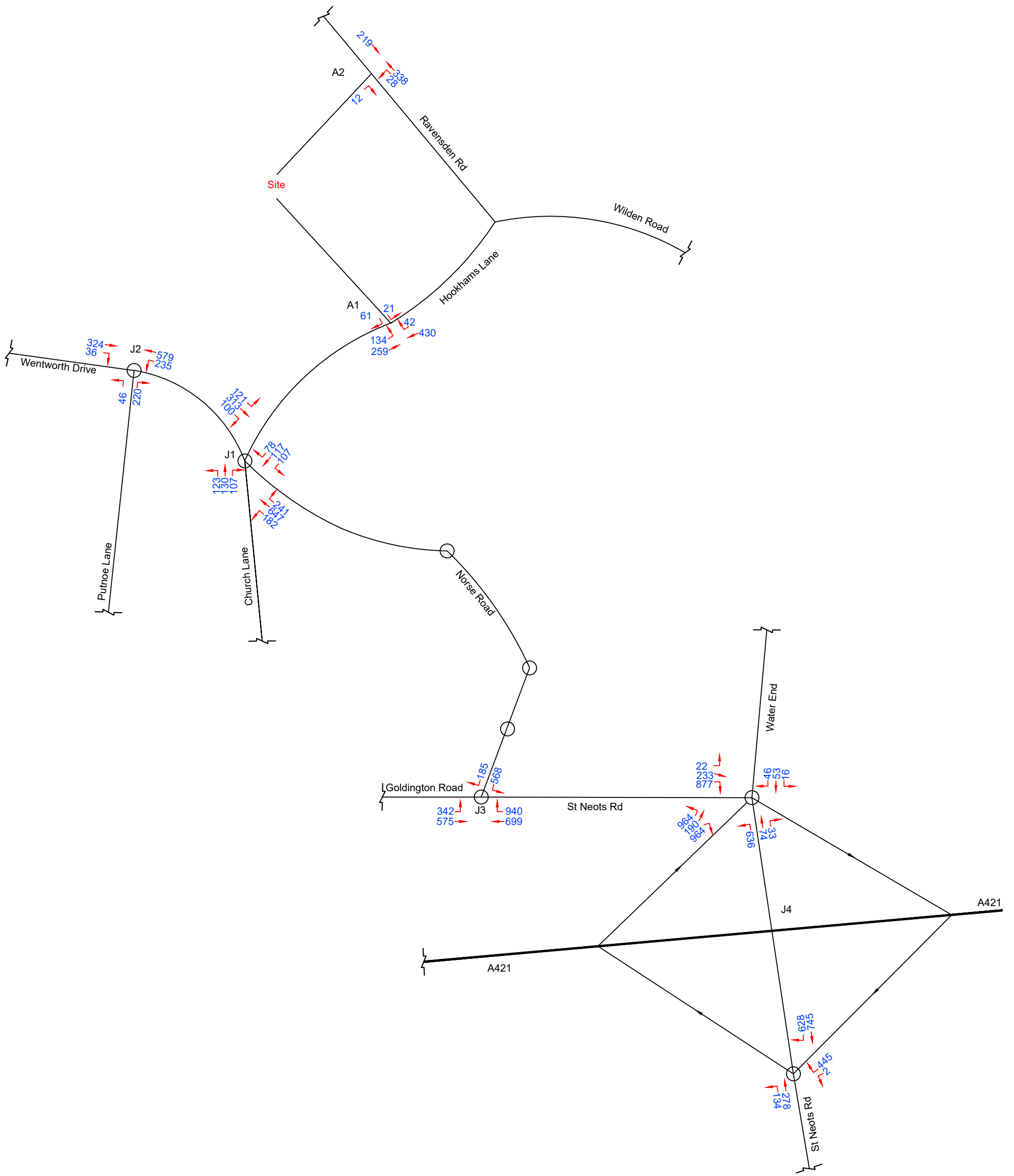
Chk: MJA

Drawing No: 143-TA43

Revision: -

Scale: NTS

Size: A3



- Junctions:**
- A1: Hookhams Lane Access
  - A2: Ravensden Road Access
  - J1: Hookhams Lane / Norse Rd / Church Lane / Wentworth Drive
  - J2: Wentworth Drive / Putnoe Lane
  - J3: A4280 St Neots Road / A4280 Goldington Road / Norse Road
  - J4: A421 / St Neots Road / A4280

T: 01604 340544 Northampton Office  
 E: info@mac-ltd.co.uk W: mac-ltd.co.uk  
 Martin Andrews Consulting Ltd

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes		Project: Land north of Hookhams Ln Salph End	
Title: Vehicle Trip Movement Diagram 2030 - PM Peak Background - Committed - Development		Date: 29/08/19	Drw: MJA
Drawing No: 143-TA44		Revision: -	Scale: NTS
			Size: A3





**Appendix L**  
Traffic Count Data



Hookhams Lane (A1)

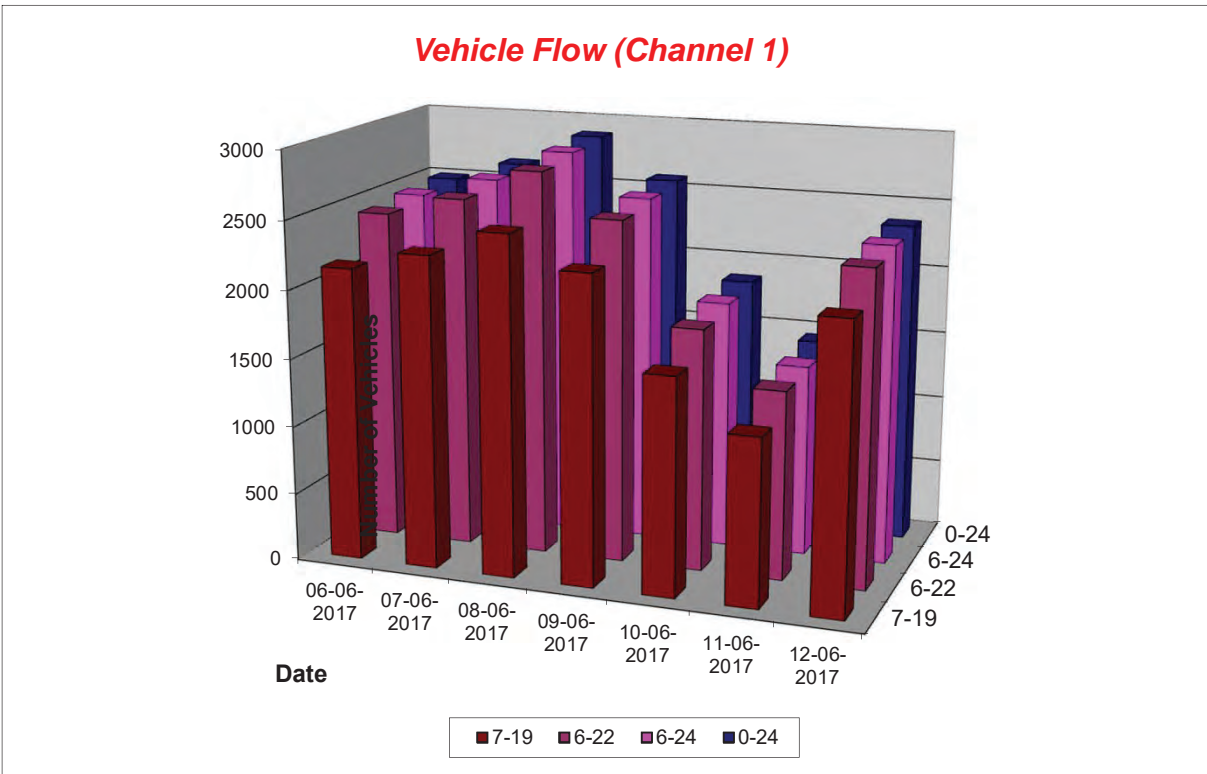
Ravensden Road (A2)

Hookhams Lane (B1)

# Salph End ATC 1, Hookhams Lane (Northern Site)

Produced by Road Data Services Ltd.

Channel 1 - Northbound								Vehicle Flow		Week 1	
Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday	5 Day Ave	7 Day Ave		
1	7	8	3	8	12	12	4	6	8		
2	4	0	4	4	6	6	3	3	4		
3	3	2	1	1	1	4	0	1	2		
4	2	3	4	4	6	3	5	4	4		
5	2	3	5	5	1	5	2	3	3		
6	7	7	12	11	7	6	9	9	8		
7	37	39	40	30	23	8	36	36	30		
8	127	123	125	97	33	25	120	118	93		
9	223	232	258	225	72	38	212	230	180		
10	138	141	153	134	128	66	126	138	127		
11	131	134	147	133	160	128	136	136	138		
12	140	171	175	163	174	158	141	158	160		
13	154	151	160	157	193	167	160	156	163		
14	152	166	164	124	156	145	135	148	149		
15	155	163	189	189	151	124	168	173	163		
16	219	232	250	279	132	104	203	237	203		
17	253	269	279	303	157	133	262	273	237		
18	288	318	366	303	143	80	288	313	255		
19	172	191	219	150	97	65	141	175	148		
20	110	121	142	103	73	63	90	113	100		
21	85	84	95	80	58	49	61	81	73		
22	50	43	50	37	27	37	25	41	38		
23	25	32	32	34	33	13	23	29	27		
24	12	10	13	14	18	8	12	12	12		
7-19	2152	2291	2485	2257	1596	1233	2092	2255	2015		
6-22	2434	2578	2812	2507	1777	1390	2304	2527	2257		
6-24	2471	2620	2857	2555	1828	1411	2339	2568	2297		
0-24	2496	2643	2886	2588	1861	1447	2362	2595	2326		



# Salph End ATC 1, Hookhams Lane (Northern Site)

Produced by Road Data Services Ltd.

## Channel 1 - Northbound

## Average Speed

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	27.0	24.3	21.5	22.9	25.5	26.1	27.8
2	25.2	-	23.2	24.2	26.9	23.3	21.8
3	32.0	28.7	20.4	18.2	23.5	27.2	-
4	32.3	26.2	26.1	24.0	22.6	23.0	26.6
5	21.9	24.3	24.2	25.3	27.0	24.1	30.4
6	26.2	26.6	27.3	26.4	23.0	21.0	25.7
7	23.6	24.2	24.5	24.5	25.3	22.8	24.1
8	22.1	23.6	23.4	23.8	23.3	23.6	23.9
9	22.3	23.1	22.9	23.2	22.6	21.6	23.1
10	22.2	22.0	21.8	22.2	22.7	21.6	22.1
11	21.2	22.4	22.2	21.9	21.1	22.1	22.3
12	22.4	22.0	21.8	21.7	21.3	22.0	21.7
13	21.3	22.5	21.9	22.2	21.6	23.4	22.1
14	22.3	22.9	22.1	23.0	22.6	22.9	22.9
15	22.6	22.6	22.5	20.8	23.1	22.8	22.7
16	22.4	22.5	21.8	22.5	23.0	22.9	22.8
17	22.6	22.3	22.6	22.7	23.0	22.8	22.9
18	22.9	23.1	23.1	23.0	23.6	23.4	23.1
19	23.0	22.1	23.1	23.8	23.3	23.9	22.8
20	21.8	22.0	22.7	22.7	22.8	24.1	22.8
21	23.6	22.8	22.8	23.8	22.6	22.8	23.3
22	21.7	22.8	23.8	22.8	22.6	22.9	22.7
23	23.1	23.4	24.2	23.8	21.7	25.7	23.5
24	24.4	23.9	23.4	23.6	23.0	23.1	24.6

10-12	21.8	22.2	22.0	21.8	21.2	22.1	22.0
14-16	22.5	22.5	22.1	21.8	23.1	22.9	22.7
0-24	22.5	22.7	22.6	22.7	22.6	22.9	22.8

Average	22.7
---------	------

## Channel 1 - Northbound

## 85th Percentile

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	30.1	25.6	23.3	25.7	27.3	30.4	33.3
2	27.9	-	27.5	28.7	33.3	26.9	24.0
3	35.1	31.4	-	-	-	29.8	-
4	35.7	27.5	27.4	24.6	25.8	24.5	29.4
5	22.4	26.7	26.1	28.8	-	28.8	30.7
6	29.3	30.9	32.8	31.4	25.0	25.8	27.2
7	27.8	28.7	28.1	28.7	30.8	26.6	27.7
8	26.3	26.9	27.5	27.6	28.2	27.6	27.4
9	25.5	26.1	26.1	25.6	26.6	27.8	26.8
10	25.5	25.4	24.9	25.9	25.8	25.1	25.8
11	24.8	25.8	24.9	25.1	24.7	26.5	25.6
12	25.6	25.8	24.8	24.9	24.9	25.1	24.9
13	24.8	26.0	25.3	25.5	24.9	26.3	25.5
14	25.0	25.7	25.1	26.4	25.6	26.6	25.9
15	25.3	26.6	25.3	24.9	26.4	27.1	25.6
16	25.6	25.3	25.5	25.6	27.0	26.4	25.6
17	25.7	25.5	25.9	25.7	26.5	26.1	26.5
18	26.1	26.3	26.2	26.2	26.4	27.0	25.9
19	25.9	25.4	26.1	26.8	27.4	27.5	26.6
20	25.9	25.8	25.4	25.8	27.0	27.8	25.8
21	26.9	26.2	25.9	27.7	25.8	26.6	27.1
22	26.4	26.0	26.2	26.9	24.4	26.0	26.3
23	25.4	28.7	28.0	25.4	25.4	31.0	26.3
24	28.3	28.6	26.6	28.2	26.2	25.0	28.8

10-12	25.3	25.8	24.8	25.1	24.8	25.8	25.5
14-16	25.5	25.8	25.3	25.3	26.8	26.8	25.6
0-24	25.8	26.0	25.8	25.9	26.2	26.7	26.2

85th %ile	26.0
-----------	------

# Salph End ATC 1, Hookhams Lane (Northern Site)

Produced by Road Data Services Ltd.

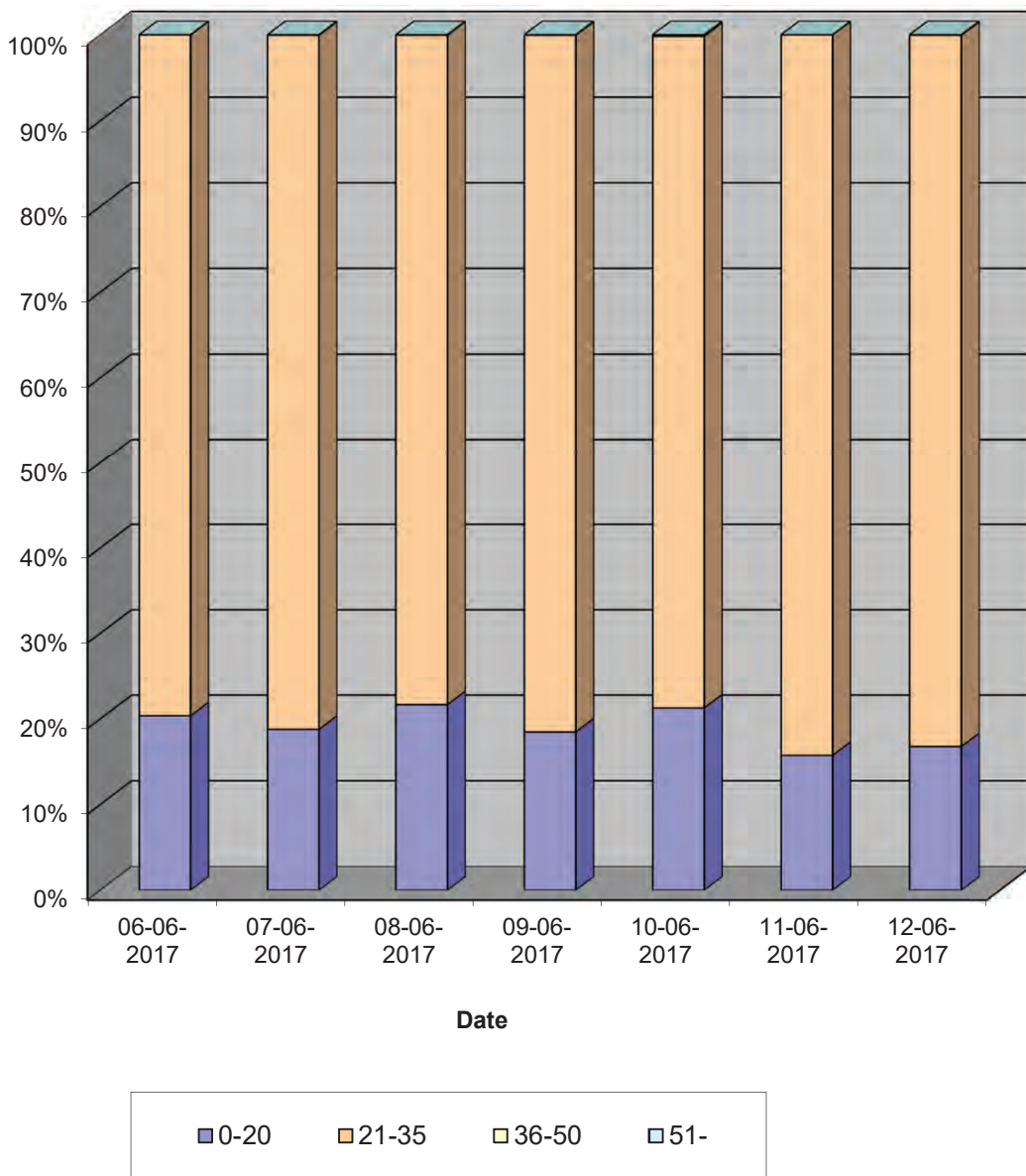
Channel 1 - Northbound

Speed Summary

Week 1

Speed (MPH)	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
0-20	507	495	624	477	395	227	395
21-35	1989	2147	2261	2110	1463	1220	1966
36-50	0	1	1	1	3	0	1
51-	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>2496</b>	<b>2643</b>	<b>2886</b>	<b>2588</b>	<b>1861</b>	<b>1447</b>	<b>2362</b>

**Speed Summary (MPH)**

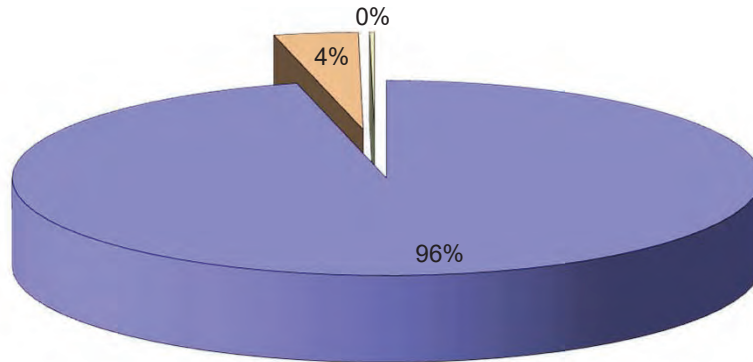


# Salph End ATC 1, Hookhams Lane (Northern Site)

Produced by Road Data Services Ltd.

Channel 1 - Northbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
06-06-17					
7-19	2059	92	1	2152	
6-22	2335	97	2	2434	
6-24	2372	97	2	2471	
0-24	2394	100	2	2496	
07-06-17					
7-19	2189	98	4	2291	
6-22	2470	103	5	2578	
6-24	2512	103	5	2620	
0-24	2532	106	5	2643	
08-06-17					
7-19	2386	92	7	2485	
6-22	2705	100	7	2812	
6-24	2750	100	7	2857	
0-24	2776	103	7	2886	
09-06-17					
7-19	2151	99	7	2257	
6-22	2391	108	8	2507	
6-24	2439	108	8	2555	
0-24	2471	109	8	2588	
10-06-17					
7-19	1554	38	4	1596	
6-22	1731	42	4	1777	
6-24	1782	42	4	1828	
0-24	1812	45	4	1861	
11-06-17					
7-19	1212	21	0	1233	
6-22	1364	26	0	1390	
6-24	1385	26	0	1411	
0-24	1420	27	0	1447	
12-06-17					
7-19	1995	89	8	2092	
6-22	2198	98	8	2304	
6-24	2233	98	8	2339	
0-24	2252	102	8	2362	
Average					
7-19	1935	76	4	2015	
6-22	2171	82	5	2257	
6-24	2210	82	5	2297	
0-24	2237	85	5	2326	

**Total Vehicle Class Distribution**



# Salph End ATC 1, Hookhams Lane (Northern Site)

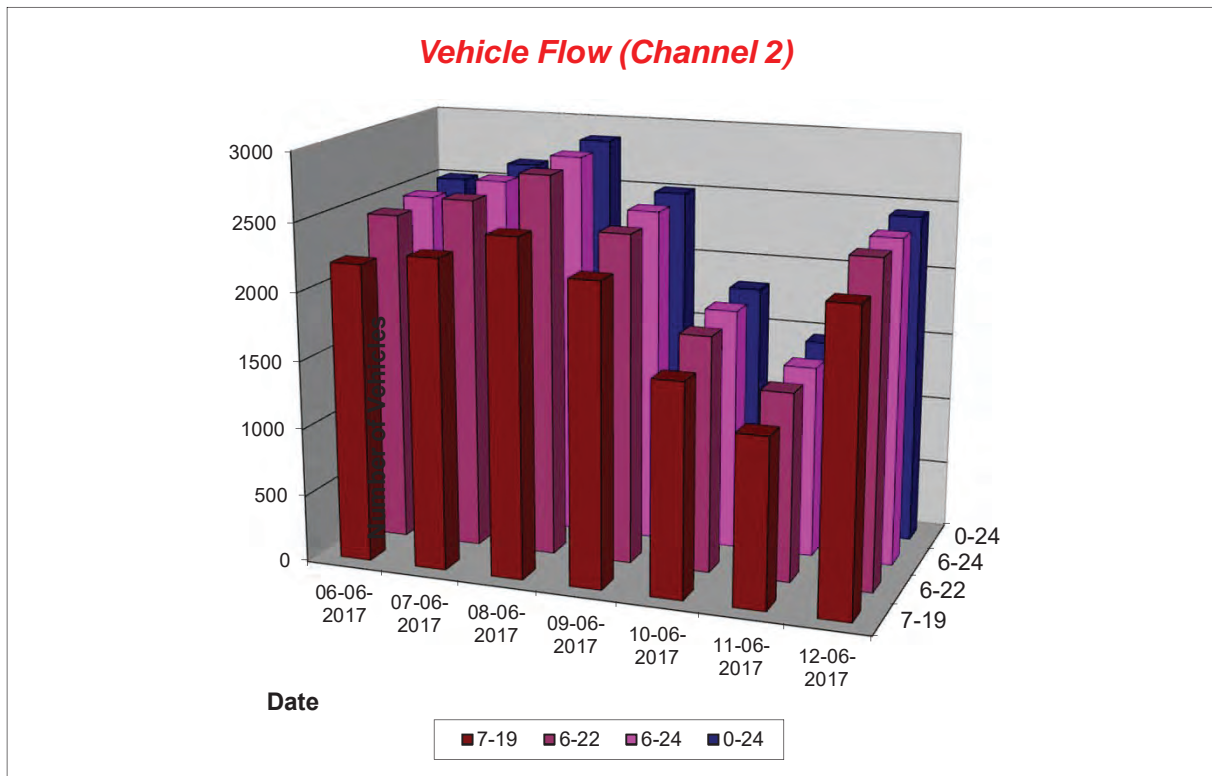
Produced by Road Data Services Ltd.

Channel 2 - Southbound

Vehicle Flow

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday	5 Day Ave	7 Day Ave
1	6	2	2	3	13	6	4	3	5
2	4	1	2	1	3	9	3	2	3
3	2	1	1	1	2	5	0	1	2
4	1	2	1	2	4	1	1	1	2
5	4	5	5	6	1	3	5	5	4
6	22	20	20	20	9	13	28	22	19
7	64	72	63	52	19	7	57	62	48
8	207	227	213	205	53	23	221	215	164
9	354	376	365	333	129	50	361	358	281
10	203	222	223	209	151	91	187	209	184
11	147	118	168	143	173	144	117	139	144
12	150	150	150	170	173	135	141	152	153
13	127	155	160	131	184	149	160	147	152
14	135	127	156	152	152	132	132	140	141
15	114	125	152	129	121	120	120	128	126
16	215	214	238	226	109	135	204	219	192
17	195	204	245	209	129	110	172	205	181
18	201	237	220	192	109	86	271	224	188
19	149	130	186	118	90	77	115	140	124
20	85	99	124	72	79	62	69	90	84
21	59	72	85	55	38	38	38	62	55
22	32	56	54	27	33	33	22	38	37
23	22	20	28	30	24	22	10	22	22
24	10	19	7	21	21	5	7	13	13
7-19	2197	2285	2476	2217	1573	1252	2201	2275	2029
6-22	2437	2584	2802	2423	1742	1392	2387	2527	2252
6-24	2469	2623	2837	2474	1787	1419	2404	2561	2288
0-24	2508	2654	2868	2507	1819	1456	2445	2596	2322



# Salph End ATC 1, Hookhams Lane (Northern Site)

Produced by Road Data Services Ltd.

## Channel 2 - Southbound

## Average Speed

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	27.1	27.3	25.1	26.1	24.9	21.7	19.1
2	25.7	23.6	23.8	30.1	24.5	23.9	21.5
3	18.4	22.4	20.1	24.9	22.8	25.8	-
4	25.4	23.2	20.3	19.5	20.8	24.3	32.3
5	27.6	26.6	26.3	23.9	25.7	23.6	26.2
6	26.2	27.0	26.4	27.1	27.0	24.7	25.1
7	25.9	24.3	24.9	26.7	25.6	27.4	24.3
8	24.4	25.3	24.2	25.2	23.5	23.4	24.3
9	23.8	23.6	23.5	24.0	23.4	23.1	23.7
10	23.0	23.1	22.6	23.3	23.2	23.0	22.9
11	22.8	23.1	22.3	22.1	23.0	23.9	23.0
12	22.5	23.3	21.7	22.9	22.1	23.1	22.9
13	22.8	23.2	22.8	23.1	22.8	23.4	23.1
14	22.8	23.5	23.0	23.0	24.1	23.7	22.2
15	22.1	23.2	23.1	21.9	23.1	22.3	22.5
16	22.9	23.4	22.4	23.4	22.8	23.2	23.6
17	23.4	23.4	23.1	24.2	23.1	23.7	24.2
18	23.7	23.6	24.1	24.3	24.1	23.8	24.0
19	23.8	23.9	23.5	25.1	25.4	24.2	23.9
20	23.5	24.0	23.9	24.1	24.3	24.7	25.1
21	22.8	23.6	23.2	23.3	24.4	23.7	26.1
22	24.5	22.8	23.2	25.1	24.4	23.9	21.4
23	24.5	24.1	24.0	25.4	22.4	22.7	24.4
24	24.8	23.6	21.8	23.3	24.4	22.7	24.9

10-12	22.6	23.2	22.0	22.5	22.6	23.5	22.9
14-16	22.6	23.4	22.7	22.9	23.0	22.8	23.2
0-24	23.4	23.7	23.2	23.8	23.4	23.5	23.6

Average	23.5
---------	------

## Channel 2 - Southbound

## 85th Percentile

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	32.8	28.4	25.2	27.1	29.6	26.9	28.0
2	28.6	-	26.0	-	26.5	27.8	25.1
3	19.2	-	-	-	22.9	28.2	-
4	-	23.7	-	20.7	22.8	-	-
5	32.0	29.9	30.2	25.4	-	30.8	28.3
6	30.0	30.1	30.3	29.9	29.7	29.5	28.4
7	29.1	28.7	29.0	29.9	29.5	29.0	27.5
8	27.7	28.5	27.5	28.8	27.9	28.6	27.7
9	26.8	27.6	26.2	27.4	27.0	26.7	26.7
10	26.0	26.7	25.4	25.7	27.7	27.2	26.2
11	25.7	25.7	25.4	25.6	26.2	28.0	26.4
12	26.2	27.0	25.5	25.9	25.6	27.7	26.3
13	26.5	27.4	26.1	26.4	25.6	26.9	25.9
14	25.7	26.3	26.5	26.7	28.4	27.4	25.6
15	26.3	25.9	26.1	25.8	25.8	25.7	25.3
16	25.7	27.3	25.3	26.2	25.8	26.7	26.0
17	25.9	26.8	26.3	27.9	26.6	27.6	27.2
18	26.9	27.0	26.8	28.6	27.3	28.4	26.9
19	27.3	27.2	26.2	28.4	29.5	27.9	26.9
20	28.4	28.1	27.3	27.4	28.4	28.7	28.8
21	26.3	27.0	26.4	27.7	27.8	28.6	31.2
22	28.2	26.8	26.1	27.6	29.4	29.0	25.4
23	28.7	27.9	27.9	28.1	27.5	25.5	26.6
24	26.9	27.9	25.0	28.7	27.9	26.2	29.6

10-12	25.9	25.9	25.5	25.9	25.8	27.8	26.4
14-16	25.8	26.8	25.5	26.1	25.8	26.2	25.7
0-24	26.8	27.3	26.3	27.6	27.3	27.7	26.9

85th %ile	27.1
-----------	------



# Salph End ATC 1, Hookhams Lane (Northern Site)

Produced by Road Data Services Ltd.

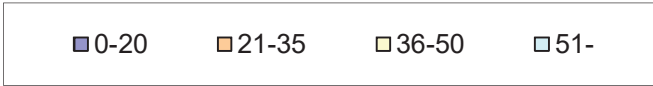
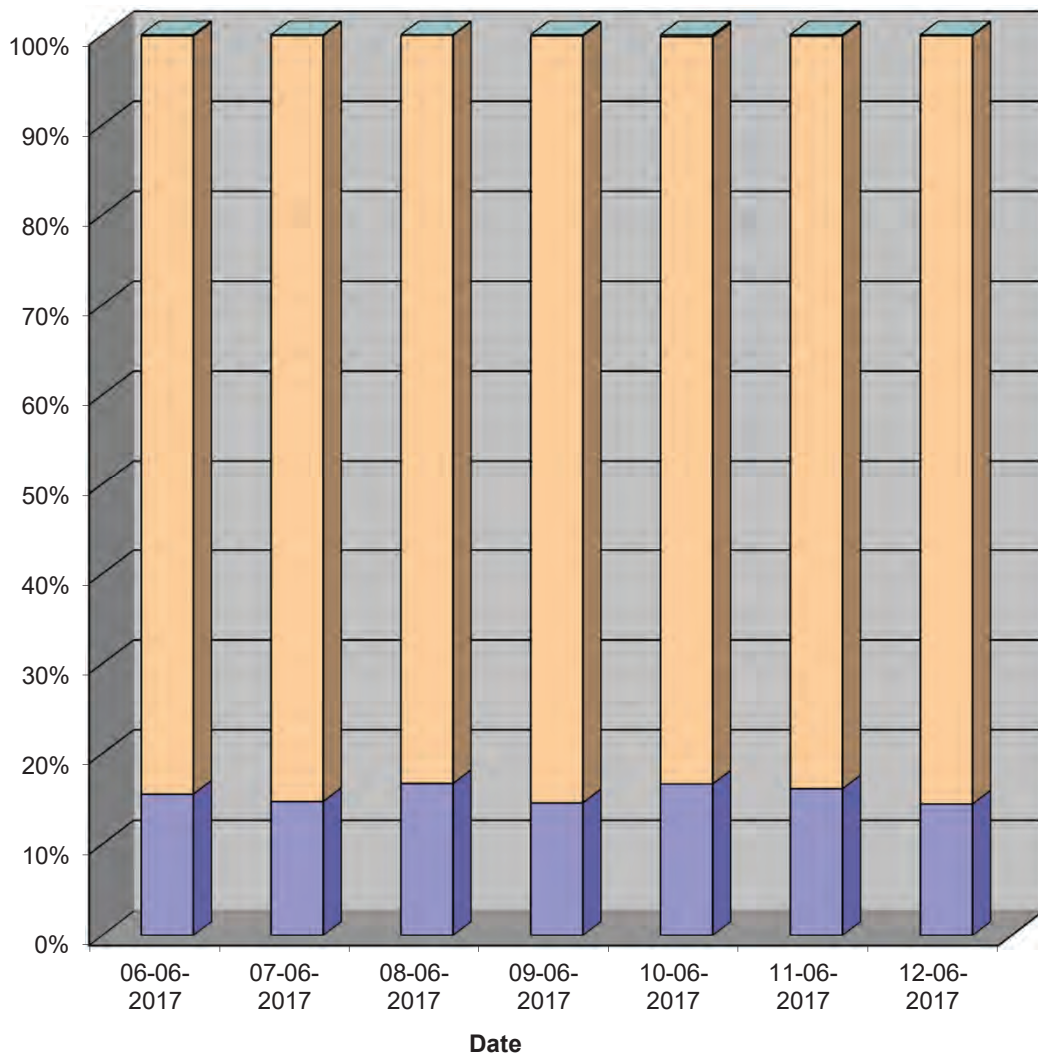
Channel 2 - Southbound

Speed Summary

Week 1

Speed (MPH)	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
0-20	388	389	478	364	302	234	352
21-35	2117	2263	2389	2140	1513	1220	2091
36-50	3	2	1	3	4	2	2
51-	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>2508</b>	<b>2654</b>	<b>2868</b>	<b>2507</b>	<b>1819</b>	<b>1456</b>	<b>2445</b>

**Speed Summary (MPH)**

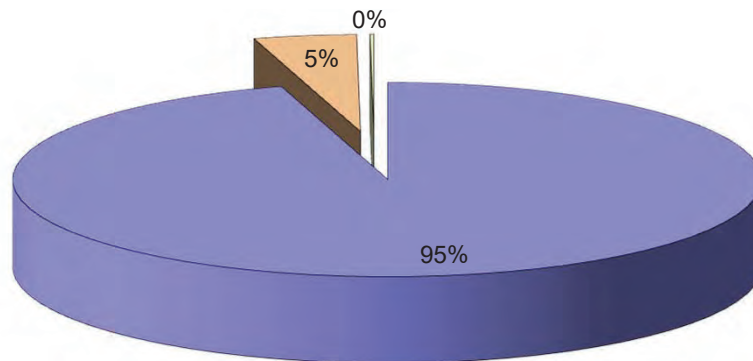


# Salph End ATC 1, Hookhams Lane (Northern Site)

Produced by Road Data Services Ltd.

Channel 2 - Southbound		Vehicle Class			Week 1
Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
06-06-17					
7-19	2078	116	3	2197	
6-22	2309	124	4	2437	
6-24	2340	125	4	2469	
0-24	2374	130	4	2508	
07-06-17					
7-19	2153	125	7	2285	
6-22	2438	139	7	2584	
6-24	2475	141	7	2623	
0-24	2503	144	7	2654	
08-06-17					
7-19	2359	112	5	2476	
6-22	2678	119	5	2802	
6-24	2713	119	5	2837	
0-24	2740	123	5	2868	
09-06-17					
7-19	2095	117	5	2217	
6-22	2296	122	5	2423	
6-24	2346	123	5	2474	
0-24	2375	127	5	2507	
10-06-17					
7-19	1537	33	3	1573	
6-22	1703	36	3	1742	
6-24	1747	37	3	1787	
0-24	1774	42	3	1819	
11-06-17					
7-19	1228	23	1	1252	
6-22	1364	26	2	1392	
6-24	1391	26	2	1419	
0-24	1427	27	2	1456	
12-06-17					
7-19	2081	119	1	2201	
6-22	2262	124	1	2387	
6-24	2279	124	1	2404	
0-24	2318	126	1	2445	
Average					
7-19	1933	92	4	2029	
6-22	2150	99	4	2252	
6-24	2184	99	4	2288	
0-24	2216	103	4	2322	

**Total Vehicle Class Distribution**



# Salph End ATC 2, Ravensden Road

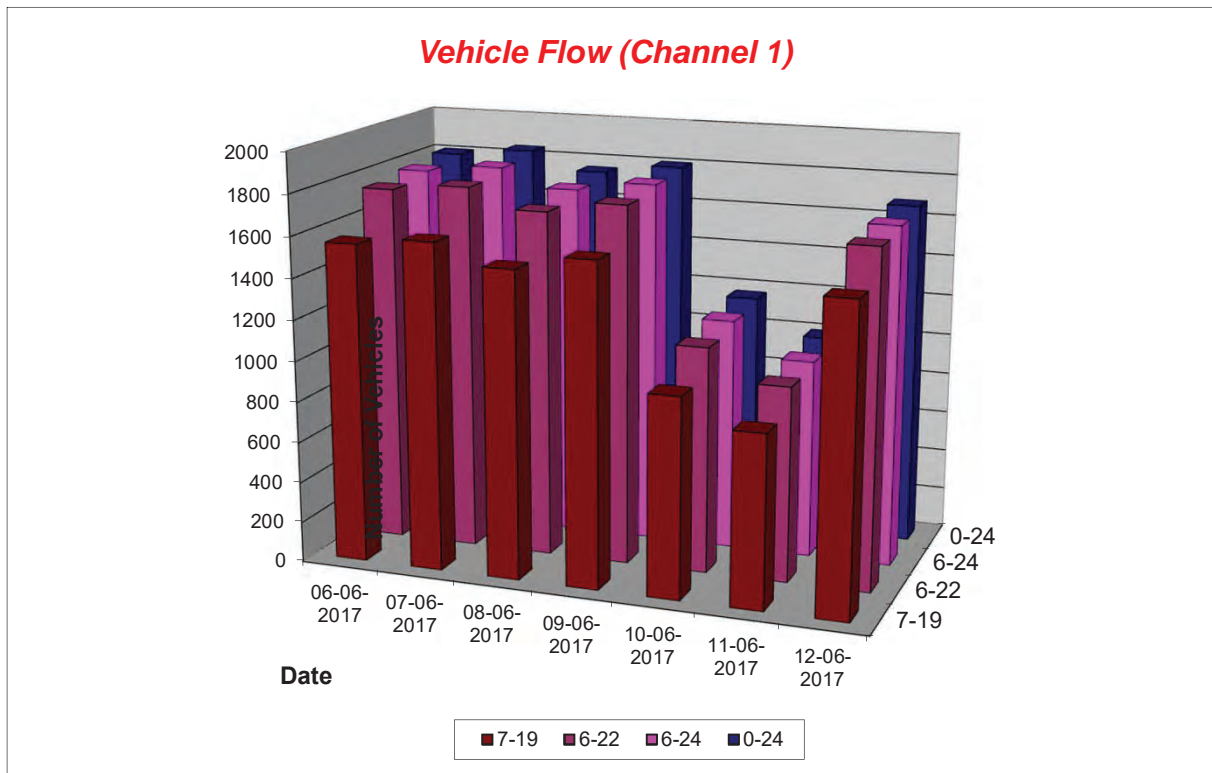
Produced by Road Data Services Ltd.

Channel 1 - Northbound

Vehicle Flow

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday	5 Day Ave	7 Day Ave
1	4	7	2	2	6	9	1	3	4
2	2	2	3	3	4	1	0	2	2
3	3	3	1	1	1	2	0	2	2
4	4	3	5	2	4	1	6	4	4
5	3	2	4	3	1	3	4	3	3
6	10	7	8	10	9	4	10	9	8
7	28	31	32	28	21	4	27	29	24
8	97	95	85	87	25	17	94	92	71
9	126	126	137	118	51	33	124	126	102
10	75	89	80	66	74	59	82	78	75
11	81	91	101	88	83	76	75	87	85
12	72	95	89	85	89	107	75	83	87
13	92	85	72	100	105	112	101	90	95
14	83	85	86	84	102	93	83	84	88
15	111	106	120	125	91	78	109	114	106
16	167	158	149	192	86	71	137	161	137
17	203	206	161	214	105	96	178	192	166
18	285	299	287	288	99	64	299	292	232
19	169	164	134	126	70	42	133	145	120
20	81	68	77	74	43	46	61	72	64
21	62	53	54	53	42	34	42	53	49
22	20	36	30	24	22	25	22	26	26
23	17	19	28	22	20	13	15	20	19
24	10	12	10	7	14	6	5	9	9
7-19	1561	1599	1501	1573	980	848	1490	1545	1365
6-22	1752	1787	1694	1752	1108	957	1642	1725	1527
6-24	1779	1818	1732	1781	1142	976	1662	1754	1556
0-24	1805	1842	1755	1802	1167	996	1683	1777	1579



# Salph End ATC 2, Ravensden Road

Produced by Road Data Services Ltd.

## Channel 1 - Northbound

## Average Speed

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	31.5	27.7	27.9	25.4	31.3	30.3	17.0
2	21.1	30.8	33.0	33.0	31.9	30.3	-
3	37.5	32.1	22.2	24.5	27.7	38.0	-
4	29.6	29.6	28.8	27.3	30.9	30.2	31.3
5	38.3	35.3	35.1	31.9	29.5	25.7	39.2
6	33.1	35.0	32.5	37.5	31.6	24.0	31.2
7	30.0	31.8	31.1	30.7	30.3	28.5	31.0
8	29.8	30.1	28.5	29.3	30.8	27.1	29.6
9	28.7	28.9	28.4	28.4	29.8	29.0	29.4
10	27.8	28.3	27.6	28.1	28.1	27.1	28.0
11	27.7	28.4	27.5	29.4	28.6	26.8	27.7
12	28.2	29.0	27.8	28.0	28.5	27.8	28.4
13	27.4	29.7	28.4	26.7	29.6	28.3	29.5
14	26.8	28.0	27.7	28.3	30.0	28.4	28.6
15	29.0	28.9	26.8	27.8	29.4	29.6	28.9
16	28.5	28.5	28.0	28.8	29.3	28.7	28.6
17	29.0	29.7	28.7	28.7	30.4	28.7	28.6
18	28.8	29.7	28.7	29.3	29.8	29.4	28.6
19	30.5	28.7	29.7	30.1	30.2	29.6	28.1
20	28.1	30.3	29.4	29.4	28.8	30.2	29.2
21	31.0	27.8	28.8	29.6	29.1	29.6	29.7
22	28.1	29.3	28.4	30.4	29.3	29.0	29.3
23	30.3	35.8	30.8	28.7	29.0	27.6	29.6
24	32.9	31.1	30.9	30.4	31.6	31.1	35.2

10-12	27.9	28.7	27.7	28.7	28.5	27.4	28.0
14-16	28.7	28.7	27.5	28.4	29.4	29.2	28.8
0-24	28.9	29.3	28.5	28.9	29.5	28.6	28.8

Average	28.9
---------	------

## Channel 1 - Northbound

## 85th Percentile

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	32.4	30.1	28.2	27.4	37.5	34.4	-
2	24.6	36.5	36.2	38.5	38.1	-	-
3	39.1	37.8	-	-	-	42.1	-
4	33.4	31.4	32.6	30.9	34.1	-	34.8
5	43.8	38.4	38.9	32.4	-	31.9	44.4
6	40.4	40.2	39.1	46.3	35.2	32.0	36.4
7	37.0	37.8	35.9	37.8	34.3	31.2	36.4
8	35.0	33.6	33.9	33.4	35.9	30.8	34.3
9	33.2	33.8	32.1	32.8	35.9	37.1	34.2
10	32.4	32.6	32.3	32.4	32.6	33.3	33.3
11	31.8	33.8	30.9	33.9	34.7	33.7	31.6
12	32.8	34.1	32.3	32.0	34.2	32.9	33.9
13	31.5	34.5	32.7	30.7	35.1	32.7	33.6
14	32.1	32.6	31.5	31.5	34.8	32.6	32.3
15	33.6	33.1	31.6	32.8	33.5	34.5	34.5
16	33.1	32.8	32.3	33.7	34.5	32.9	32.8
17	34.5	33.9	33.3	33.2	35.8	32.9	33.5
18	32.9	35.2	32.9	33.6	34.7	34.8	32.9
19	36.6	33.8	34.3	36.2	35.9	35.6	32.2
20	33.6	35.6	35.1	35.3	32.8	36.3	33.1
21	36.5	32.4	33.3	33.5	33.1	35.9	37.0
22	32.6	34.6	32.9	34.3	33.1	33.3	33.5
23	33.2	42.1	35.4	33.5	32.3	31.1	31.2
24	36.2	39.7	37.7	34.2	37.4	36.5	39.4

10-12	32.5	33.9	31.6	32.8	34.6	33.3	32.4
14-16	33.3	33.1	32.0	33.4	33.8	33.7	33.5
0-24	33.7	34.3	33.2	33.5	34.7	33.5	33.6

85th %ile	33.7
-----------	------

# Salph End ATC 2, Ravensden Road

Produced by Road Data Services Ltd.

Channel 1 - Northbound

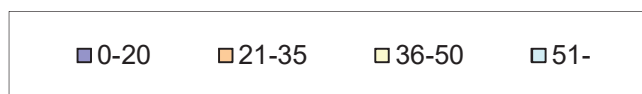
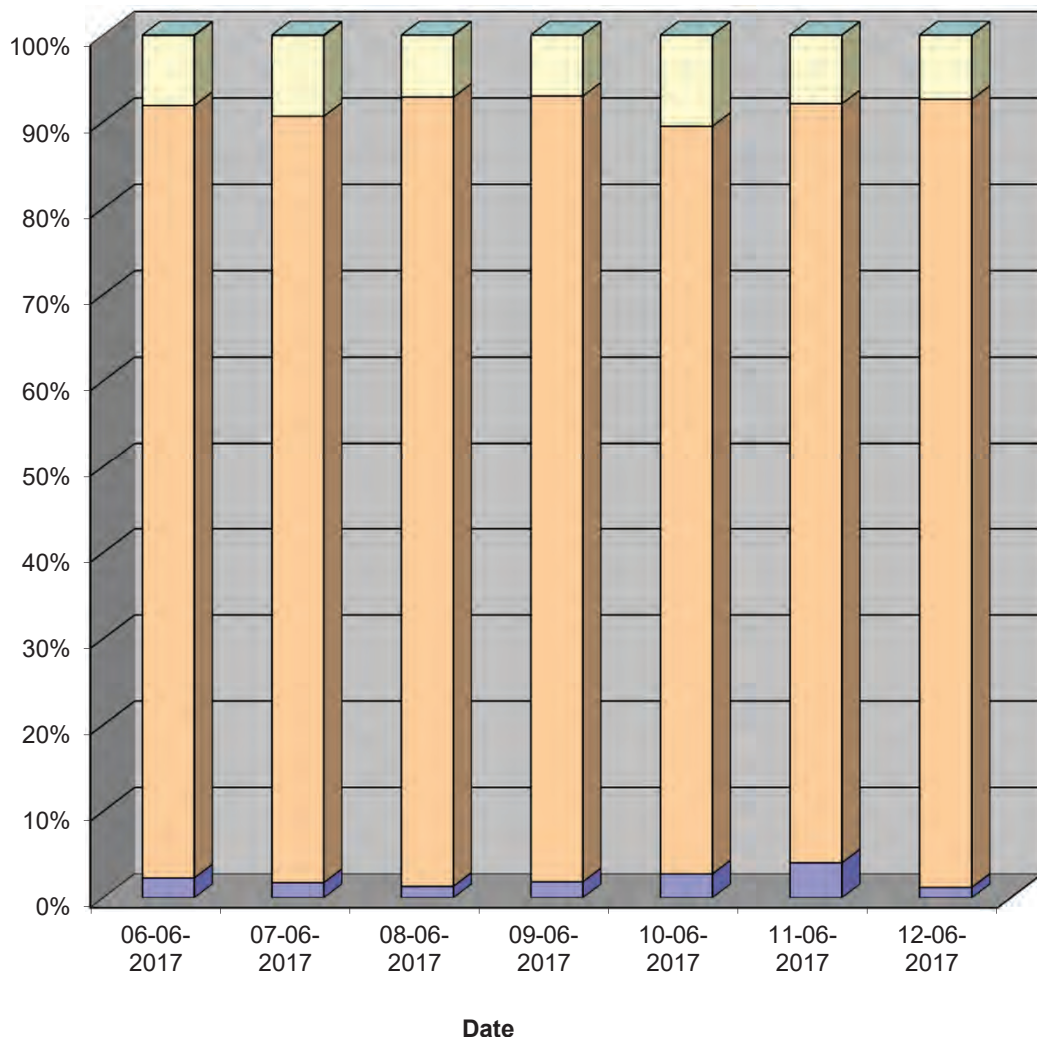
Speed Summary

Week 1

Speed (MPH)	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
0-20	41	32	23	33	32	40	20
21-35	1617	1637	1606	1642	1012	877	1538
36-50	146	172	126	127	123	79	125
51-	1	1	0	0	0	0	0

<b>TOTAL</b>	<b>1805</b>	<b>1842</b>	<b>1755</b>	<b>1802</b>	<b>1167</b>	<b>996</b>	<b>1683</b>
--------------	-------------	-------------	-------------	-------------	-------------	------------	-------------

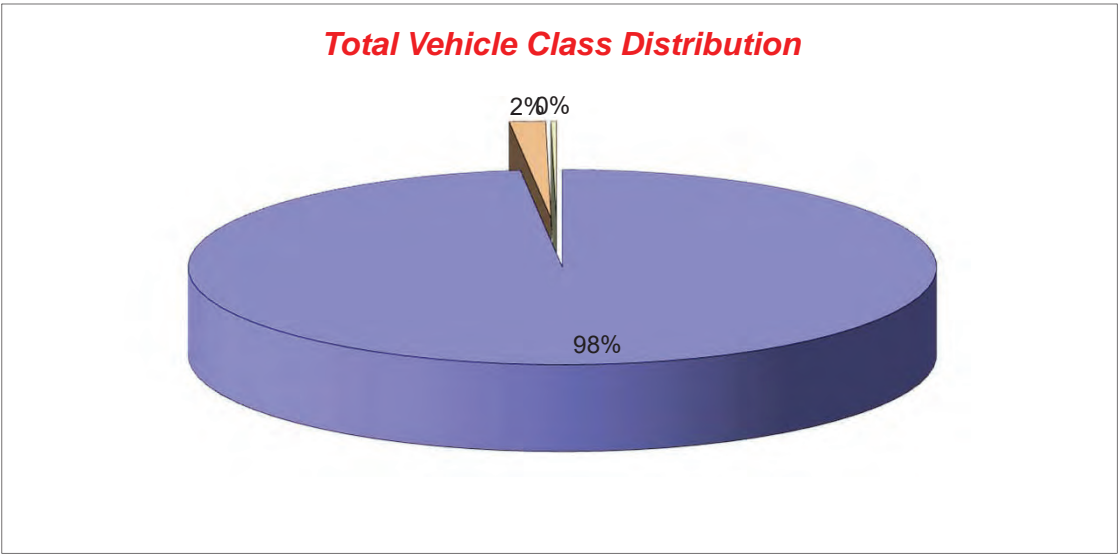
**Speed Summary (MPH)**



# Salph End ATC 2, Ravensden Road

Produced by Road Data Services Ltd.

Channel 1 - Northbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
06-06-17					
7-19	1522	37	2	1561	
6-22	1711	37	4	1752	
6-24	1738	37	4	1779	
0-24	1764	37	4	1805	
07-06-17					
7-19	1554	38	7	1599	
6-22	1738	41	8	1787	
6-24	1769	41	8	1818	
0-24	1793	41	8	1842	
08-06-17					
7-19	1472	27	2	1501	
6-22	1663	29	2	1694	
6-24	1701	29	2	1732	
0-24	1724	29	2	1755	
09-06-17					
7-19	1545	24	4	1573	
6-22	1721	27	4	1752	
6-24	1750	27	4	1781	
0-24	1771	27	4	1802	
10-06-17					
7-19	965	11	4	980	
6-22	1090	13	5	1108	
6-24	1124	13	5	1142	
0-24	1149	13	5	1167	
11-06-17					
7-19	843	4	1	848	
6-22	952	4	1	957	
6-24	971	4	1	976	
0-24	991	4	1	996	
12-06-17					
7-19	1469	19	2	1490	
6-22	1619	21	2	1642	
6-24	1639	21	2	1662	
0-24	1660	21	2	1683	
Average					
7-19	1339	23	3	1365	
6-22	1499	25	4	1527	
6-24	1527	25	4	1556	
0-24	1550	25	4	1579	



# Salph End ATC 2, Ravensden Road

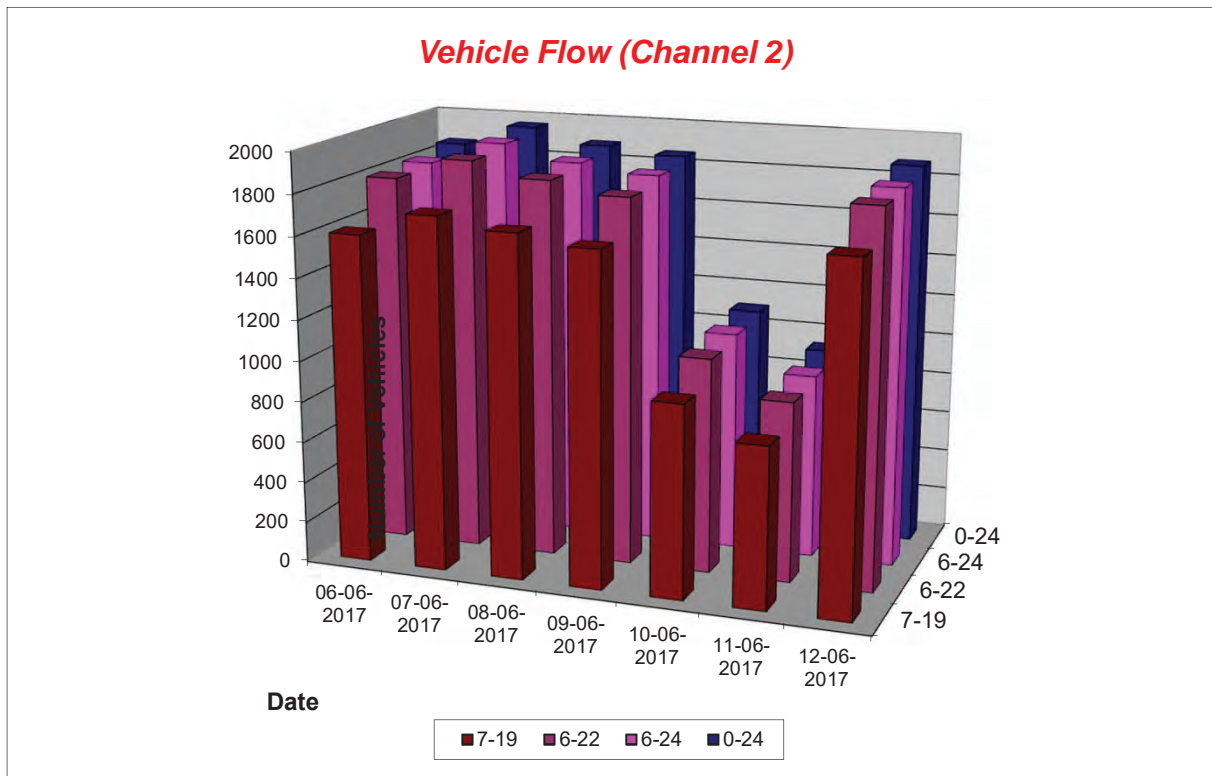
Produced by Road Data Services Ltd.

Channel 2 - Southbound

Vehicle Flow

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday	5 Day Ave	7 Day Ave
1	2	0	1	2	9	7	2	1	3
2	2	2	1	1	4	1	1	1	2
3	1	0	2	1	1	4	0	1	1
4	4	3	1	2	0	1	2	2	2
5	4	3	3	4	2	2	5	4	3
6	24	17	16	22	8	10	29	22	18
7	72	65	64	60	14	5	62	65	49
8	216	212	209	193	34	16	230	212	159
9	344	389	363	341	84	40	374	362	276
10	176	192	163	198	91	57	181	182	151
11	78	83	88	78	103	78	77	81	84
12	68	84	66	80	101	83	74	74	79
13	74	91	85	80	102	95	96	85	89
14	73	83	76	77	96	96	77	77	83
15	65	77	83	74	75	84	72	74	76
16	124	116	108	113	69	80	116	115	104
17	111	128	129	111	71	60	104	117	102
18	158	155	186	170	70	53	161	166	136
19	118	111	113	107	49	48	111	112	94
20	54	50	43	47	44	44	54	50	48
21	46	42	38	38	21	22	22	37	33
22	29	36	30	21	29	22	14	26	26
23	9	11	14	27	13	20	8	14	15
24	5	12	6	10	10	1	5	8	7
7-19	1605	1721	1669	1622	945	790	1673	1658	1432
6-22	1806	1914	1844	1788	1053	883	1825	1835	1588
6-24	1820	1937	1864	1825	1076	904	1838	1857	1609
0-24	1857	1962	1888	1857	1100	929	1877	1888	1639



# Salph End ATC 2, Ravensden Road

Produced by Road Data Services Ltd.

## Channel 2 - Southbound

## Average Speed

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	29.0	-	30.9	30.9	34.5	28.0	37.3
2	29.8	32.5	27.5	34.7	33.6	46.6	28.9
3	33.7	-	31.1	26.8	29.9	34.2	-
4	30.3	32.3	33.4	31.0	-	28.4	30.7
5	35.1	32.8	33.0	32.5	29.4	33.7	35.2
6	31.7	32.1	34.4	34.3	32.6	33.2	31.1
7	30.1	30.4	30.9	31.9	32.8	30.4	31.3
8	29.8	29.7	29.4	29.3	29.9	31.8	29.6
9	28.9	29.0	28.3	28.5	29.9	30.1	28.9
10	29.8	29.3	29.1	28.7	30.7	29.8	28.9
11	29.5	29.5	28.4	29.2	30.0	28.6	27.5
12	29.3	28.9	29.2	28.3	31.0	29.0	29.3
13	30.0	29.5	29.9	29.4	30.0	29.4	29.3
14	30.4	29.3	29.5	29.9	30.2	29.3	29.4
15	29.2	28.2	29.5	28.8	29.6	29.2	30.1
16	29.2	29.8	28.5	28.9	28.8	28.9	28.7
17	29.7	30.1	28.6	30.3	29.7	30.3	30.0
18	28.8	30.2	28.8	30.1	30.2	30.4	29.8
19	30.1	29.7	30.8	30.2	31.6	31.8	29.9
20	28.7	29.0	30.4	30.8	30.7	29.3	31.0
21	28.8	29.3	28.7	29.8	29.3	30.9	31.7
22	31.3	29.4	29.5	27.9	29.2	31.6	28.6
23	29.7	31.4	29.9	29.8	33.2	29.1	29.3
24	28.4	32.2	32.1	28.8	31.9	24.7	34.2

10-12	29.4	29.2	28.7	28.7	30.5	28.8	28.4
14-16	29.2	29.2	28.9	28.9	29.2	29.0	29.2
0-24	29.5	29.5	29.2	29.4	30.3	29.7	29.5

Average	29.5
---------	------

## Channel 2 - Southbound

## 85th Percentile

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	33.3	-	-	36.9	38.7	28.9	43.7
2	30.7	34.0	-	-	39.7	-	-
3	-	-	33.6	-	-	36.8	-
4	32.7	33.8	-	34.3	-	-	32.1
5	36.9	37.2	35.7	34.8	32.0	35.7	40.4
6	37.4	37.6	41.5	38.8	39.1	36.8	37.6
7	35.3	35.9	34.8	38.1	37.9	35.8	36.7
8	34.5	34.4	33.9	34.1	33.6	35.7	34.4
9	33.4	33.3	32.5	33.4	35.0	34.1	32.7
10	34.4	33.4	32.9	32.8	34.9	35.7	33.3
11	34.6	33.4	32.8	33.5	34.6	34.1	34.4
12	35.3	33.2	33.8	32.6	34.7	33.2	33.9
13	33.3	33.3	35.1	34.4	34.4	34.4	34.1
14	34.4	33.8	34.0	34.8	34.4	34.0	33.4
15	34.7	31.7	34.4	33.2	33.8	34.6	35.2
16	34.0	34.2	33.8	33.3	34.5	33.5	32.6
17	33.9	34.3	33.1	35.9	35.1	34.7	34.7
18	33.3	34.2	32.3	34.7	34.7	34.7	34.4
19	36.0	34.1	35.5	35.8	36.9	36.5	34.4
20	33.7	33.9	35.8	34.7	35.6	33.1	35.8
21	33.3	35.1	35.2	34.8	34.1	36.4	37.3
22	35.6	34.9	33.6	32.2	33.5	35.4	31.8
23	34.5	34.1	35.3	35.4	35.6	34.6	33.4
24	30.0	38.0	35.8	32.8	35.4	-	37.7

10-12	35.1	33.2	33.1	32.8	34.7	33.9	34.3
14-16	34.4	33.6	33.9	33.3	34.2	34.3	34.0
0-24	34.5	33.9	33.9	34.4	34.8	34.6	34.2

85th %ile	34.3
-----------	------



# Salph End ATC 2, Ravensden Road

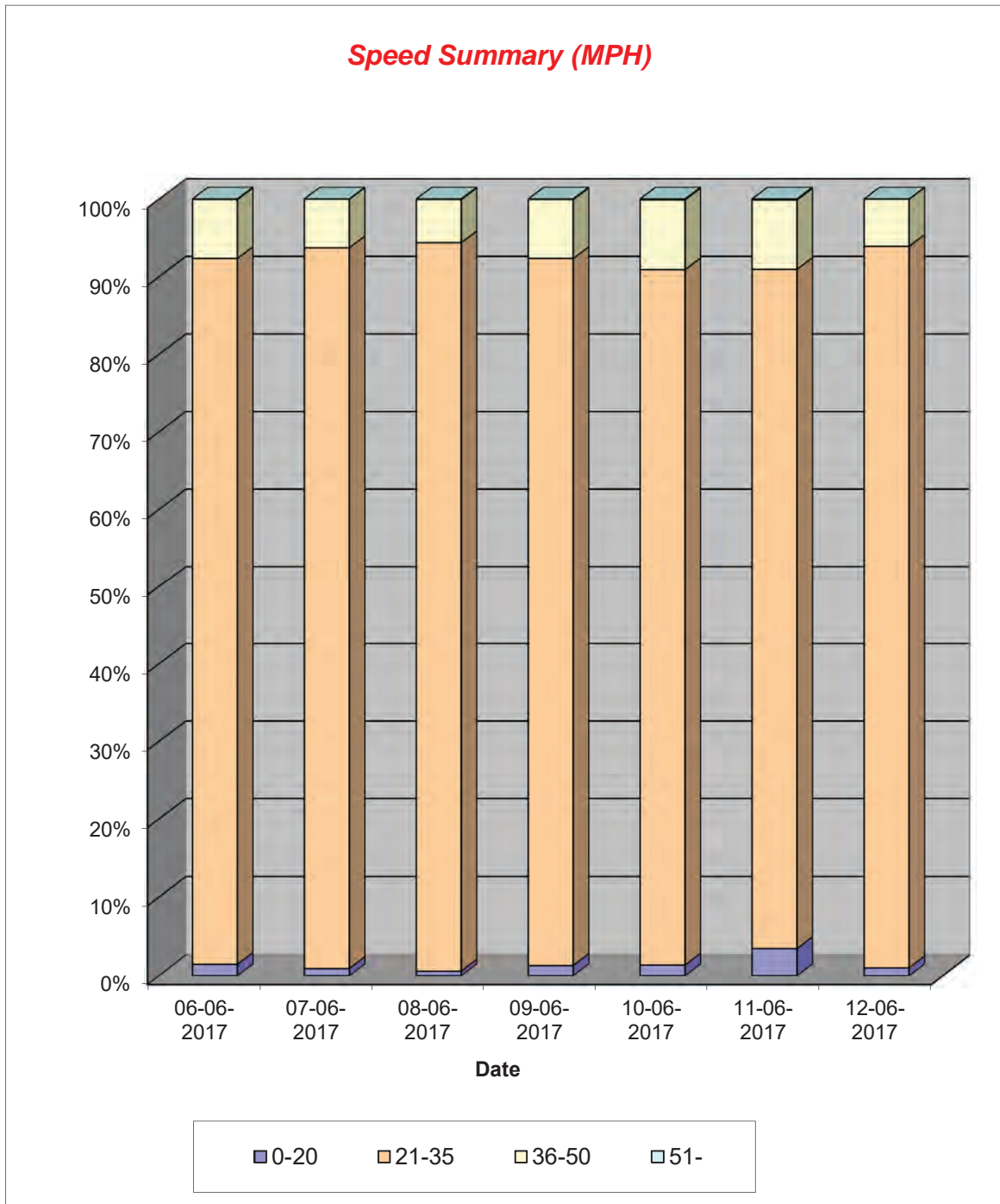
Produced by Road Data Services Ltd.

Channel 2 - Southbound

Speed Summary

Week 1

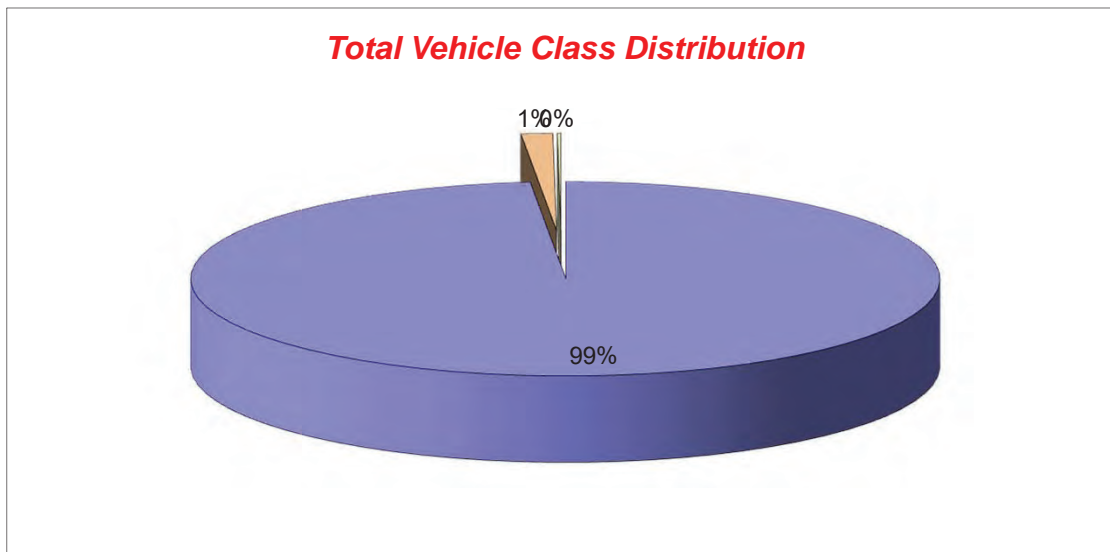
Speed (MPH)	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
0-20	27	18	11	24	15	32	19
21-35	1688	1821	1771	1691	985	813	1744
36-50	141	123	105	141	99	83	114
51-	1	0	1	1	1	1	0
<b>TOTAL</b>	<b>1857</b>	<b>1962</b>	<b>1888</b>	<b>1857</b>	<b>1100</b>	<b>929</b>	<b>1877</b>



# Salph End ATC 2, Ravensden Road

Produced by Road Data Services Ltd.

Channel 2 - Southbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
06-06-17					
7-19	1566	37	2	1605	
6-22	1764	40	2	1806	
6-24	1778	40	2	1820	
0-24	1815	40	2	1857	
07-06-17					
7-19	1688	27	6	1721	
6-22	1879	29	6	1914	
6-24	1902	29	6	1937	
0-24	1927	29	6	1962	
08-06-17					
7-19	1642	25	2	1669	
6-22	1817	25	2	1844	
6-24	1837	25	2	1864	
0-24	1861	25	2	1888	
09-06-17					
7-19	1597	23	2	1622	
6-22	1763	23	2	1788	
6-24	1800	23	2	1825	
0-24	1832	23	2	1857	
10-06-17					
7-19	936	6	3	945	
6-22	1044	6	3	1053	
6-24	1067	6	3	1076	
0-24	1090	7	3	1100	
11-06-17					
7-19	780	8	2	790	
6-22	873	8	2	883	
6-24	894	8	2	904	
0-24	919	8	2	929	
12-06-17					
7-19	1648	24	1	1673	
6-22	1800	24	1	1825	
6-24	1813	24	1	1838	
0-24	1852	24	1	1877	
Average					
7-19	1408	21	3	1432	
6-22	1563	22	3	1588	
6-24	1584	22	3	1609	
0-24	1614	22	3	1639	



# Salph End ATC 3, Hookhams Lane (Southern Site)

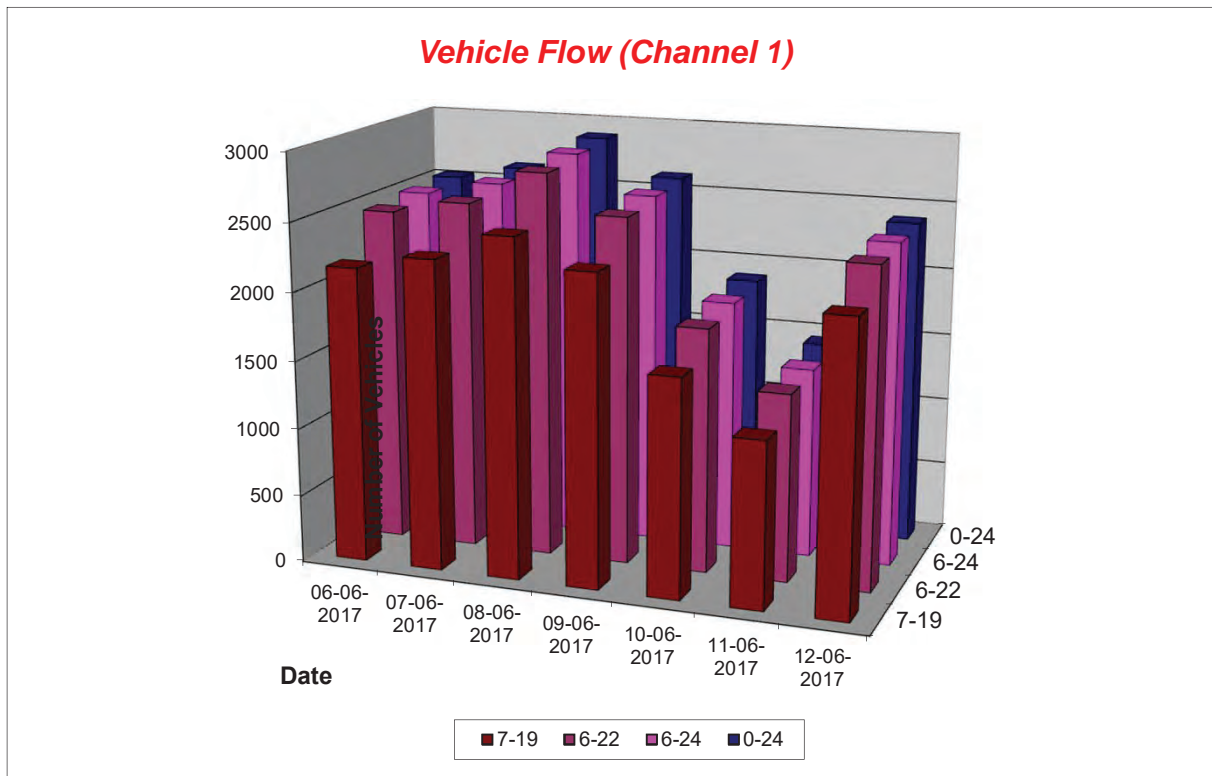
Produced by Road Data Services Ltd.

Channel 1 - Northbound

Vehicle Flow

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday	5 Day Ave	7 Day Ave
1	6	7	2	7	15	11	3	5	7
2	5	0	4	4	6	8	4	3	4
3	3	2	1	1	2	4	0	1	2
4	2	3	4	4	6	4	5	4	4
5	2	3	5	5	1	5	2	3	3
6	7	7	13	12	7	5	10	10	9
7	37	36	40	30	22	8	34	35	30
8	129	129	123	100	32	24	119	120	94
9	223	235	256	221	73	38	218	231	181
10	134	143	156	141	128	69	128	140	128
11	134	128	147	133	150	117	139	136	135
12	143	163	174	164	180	154	145	158	160
13	151	143	163	155	195	168	154	153	161
14	159	167	166	135	155	143	143	154	153
15	150	161	189	185	154	127	162	169	161
16	219	224	246	283	129	106	209	236	202
17	260	273	279	306	160	130	261	276	238
18	291	318	365	303	144	83	304	316	258
19	177	192	213	151	103	65	138	174	148
20	112	118	145	109	73	64	94	116	102
21	91	88	99	82	69	53	64	85	78
22	54	45	56	44	29	34	28	45	41
23	26	33	31	34	31	14	22	29	27
24	10	9	13	12	19	8	12	11	12
7-19	2170	2276	2477	2277	1603	1224	2120	2264	2021
6-22	2464	2563	2817	2542	1796	1383	2340	2545	2272
6-24	2500	2605	2861	2588	1846	1405	2374	2586	2311
0-24	2525	2627	2890	2621	1883	1442	2398	2612	2341



# Salph End ATC 3, Hookhams Lane (Southern Site)

Produced by Road Data Services Ltd.

## Channel 1 - Northbound

## Average Speed

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	27.9	24.8	20.1	25.7	24.2	26.3	28.7
2	27.7	-	25.7	28.6	25.5	25.2	24.9
3	26.7	28.4	26.6	32.4	21.9	25.3	-
4	29.8	23.3	26.9	25.6	25.9	25.3	26.6
5	28.8	24.2	26.3	27.1	27.2	25.2	30.1
6	28.0	28.8	26.3	27.8	26.0	24.4	26.6
7	26.3	26.3	26.0	27.6	25.6	25.3	26.0
8	25.5	26.4	26.0	25.7	25.0	24.3	26.1
9	25.0	24.9	24.5	25.3	25.9	24.3	24.9
10	24.9	25.1	23.8	24.9	24.3	24.5	24.5
11	24.5	25.5	24.1	25.0	24.9	24.5	24.4
12	25.3	24.1	24.2	23.8	25.4	25.0	24.6
13	25.2	25.8	24.4	24.5	25.7	25.4	24.8
14	24.2	24.6	24.8	24.3	26.4	24.9	25.1
15	25.1	25.1	23.4	24.8	25.7	25.0	24.6
16	25.6	25.2	24.2	24.7	25.3	25.4	25.3
17	25.3	25.5	25.4	25.3	25.6	25.5	25.2
18	25.5	25.0	25.4	25.6	26.3	25.8	25.5
19	24.8	24.9	25.2	25.9	25.3	25.4	25.8
20	25.0	24.8	25.6	25.1	24.3	25.5	25.1
21	25.9	24.8	24.7	26.6	25.0	24.9	25.3
22	24.6	25.1	24.2	25.0	26.9	24.0	26.2
23	25.7	27.7	24.4	25.7	24.3	26.1	27.7
24	27.7	26.5	23.1	27.1	24.8	26.6	26.3

10-12	24.9	24.7	24.1	24.4	25.2	24.8	24.5
14-16	25.4	25.2	23.8	24.7	25.5	25.2	25.0
0-24	25.2	25.2	24.7	25.1	25.4	25.1	25.2

Average	25.1
---------	------

## Channel 1 - Northbound

## 85th Percentile

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	32.5	26.6	20.5	27.4	29.1	28.6	32.6
2	30.9	-	27.7	30.8	33.8	32.4	27.3
3	28.9	31.9	-	-	27.2	30.0	-
4	33.2	27.9	28.6	28.7	27.8	26.5	28.5
5	33.1	26.5	27.5	28.8	-	26.6	32.5
6	31.8	35.4	30.8	32.6	27.9	28.4	27.4
7	31.2	32.1	29.3	32.3	28.2	28.2	29.3
8	30.3	29.9	29.8	28.9	29.1	27.9	29.6
9	28.0	28.6	27.9	28.5	28.9	28.5	28.1
10	28.7	29.1	27.2	28.5	28.3	28.4	28.6
11	27.9	29.5	27.7	28.5	28.4	27.8	28.0
12	28.7	28.0	27.8	27.4	29.1	29.4	27.7
13	29.2	29.2	28.3	28.2	28.8	29.5	29.1
14	27.9	28.4	27.9	27.6	29.7	28.5	29.1
15	28.2	29.1	27.6	28.6	30.6	29.4	28.5
16	29.0	28.6	27.4	28.6	28.2	29.0	28.6
17	28.6	28.8	28.9	29.3	29.2	28.8	28.7
18	29.1	28.3	29.0	28.8	30.3	29.6	28.9
19	29.5	28.6	28.8	28.4	29.1	29.9	28.7
20	29.3	27.9	29.2	28.8	27.4	28.7	29.2
21	29.8	28.3	27.7	29.9	28.8	28.5	29.9
22	28.3	28.5	29.0	28.9	31.8	27.9	29.9
23	28.9	34.0	27.6	28.8	25.8	28.9	30.5
24	29.9	28.6	30.0	30.1	26.5	28.7	30.7

10-12	28.5	28.6	27.7	27.8	28.9	28.8	27.8
14-16	28.6	28.8	27.4	28.6	29.3	29.3	28.6
0-24	28.9	28.8	28.4	28.6	29.1	29.0	28.8

85th %ile	28.7
-----------	------

# Salph End ATC 3, Hookhams Lane (Southern Site)

Produced by Road Data Services Ltd.

Channel 1 - Northbound

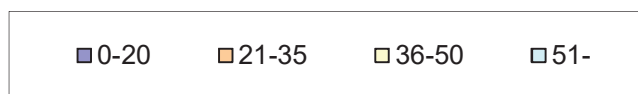
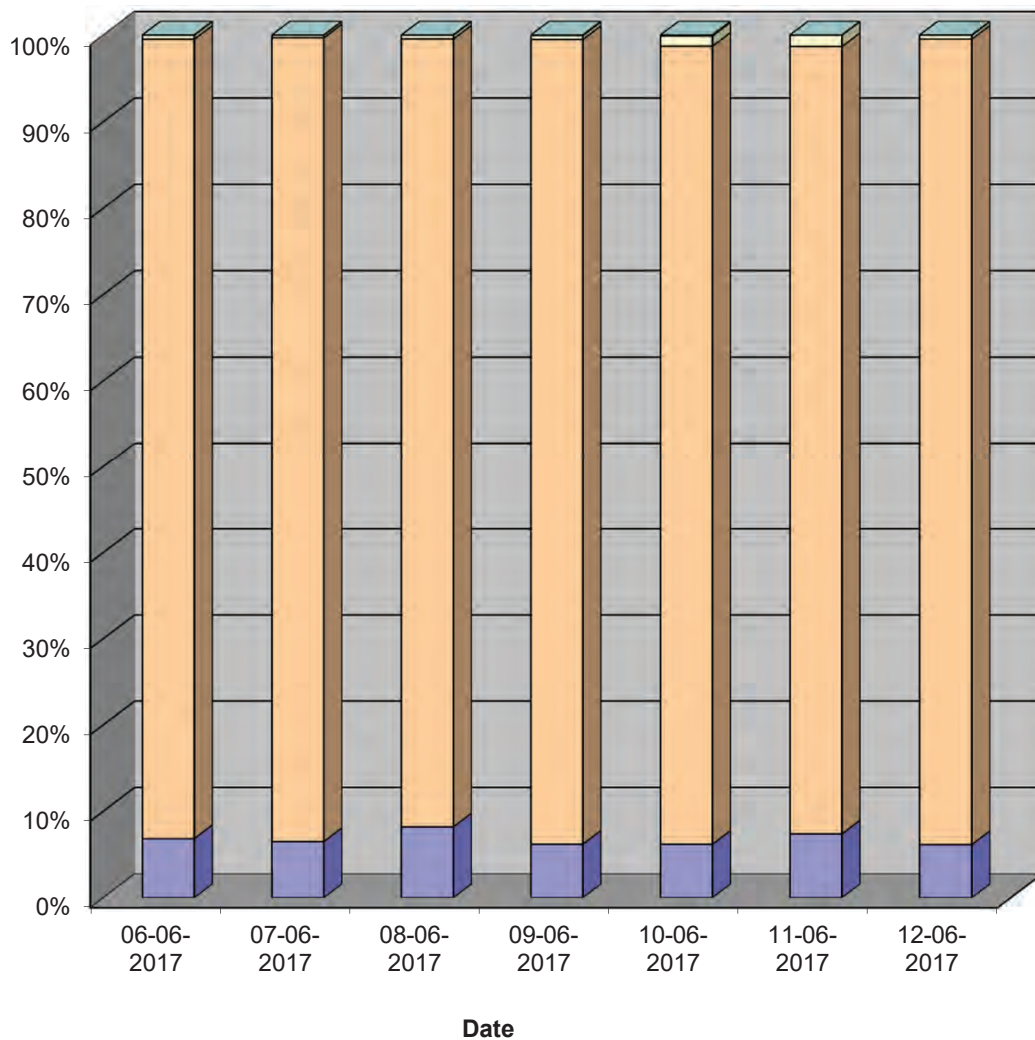
Speed Summary

Week 1

Speed (MPH)	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
0-20	172	170	236	162	116	106	147
21-35	2341	2449	2641	2446	1743	1317	2240
36-50	12	8	13	12	22	19	11
51-	0	0	0	1	2	0	0

<b>TOTAL</b>	<b>2525</b>	<b>2627</b>	<b>2890</b>	<b>2621</b>	<b>1883</b>	<b>1442</b>	<b>2398</b>
--------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

**Speed Summary (MPH)**

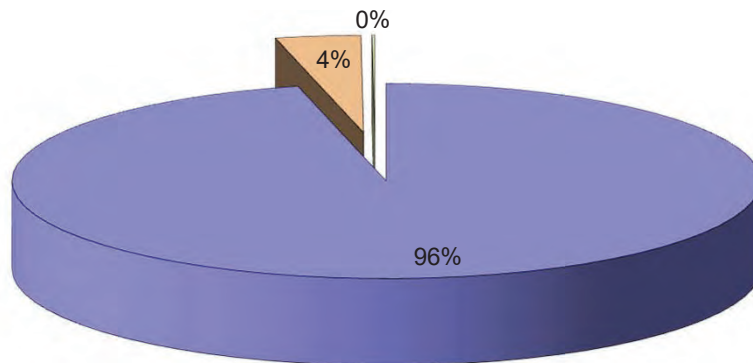


# Salph End ATC 3, Hookhams Lane (Southern Site)

Produced by Road Data Services Ltd.

Channel 1 - Northbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
06-06-17					
7-19	2072	98	0	2170	
6-22	2361	103	0	2464	
6-24	2397	103	0	2500	
0-24	2420	105	0	2525	
07-06-17					
7-19	2172	100	4	2276	
6-22	2453	105	5	2563	
6-24	2495	105	5	2605	
0-24	2514	108	5	2627	
08-06-17					
7-19	2371	104	2	2477	
6-22	2703	112	2	2817	
6-24	2747	112	2	2861	
0-24	2773	115	2	2890	
09-06-17					
7-19	2171	104	2	2277	
6-22	2429	109	4	2542	
6-24	2475	109	4	2588	
0-24	2507	110	4	2621	
10-06-17					
7-19	1568	33	2	1603	
6-22	1760	34	2	1796	
6-24	1810	34	2	1846	
0-24	1845	36	2	1883	
11-06-17					
7-19	1202	22	0	1224	
6-22	1357	26	0	1383	
6-24	1379	26	0	1405	
0-24	1415	27	0	1442	
12-06-17					
7-19	2025	90	5	2120	
6-22	2236	99	5	2340	
6-24	2269	99	6	2374	
0-24	2290	102	6	2398	
Average					
7-19	1940	79	2	2021	
6-22	2186	84	3	2272	
6-24	2225	84	3	2311	
0-24	2252	86	3	2341	

**Total Vehicle Class Distribution**



# Salph End ATC 3, Hookhams Lane (Southern Site)

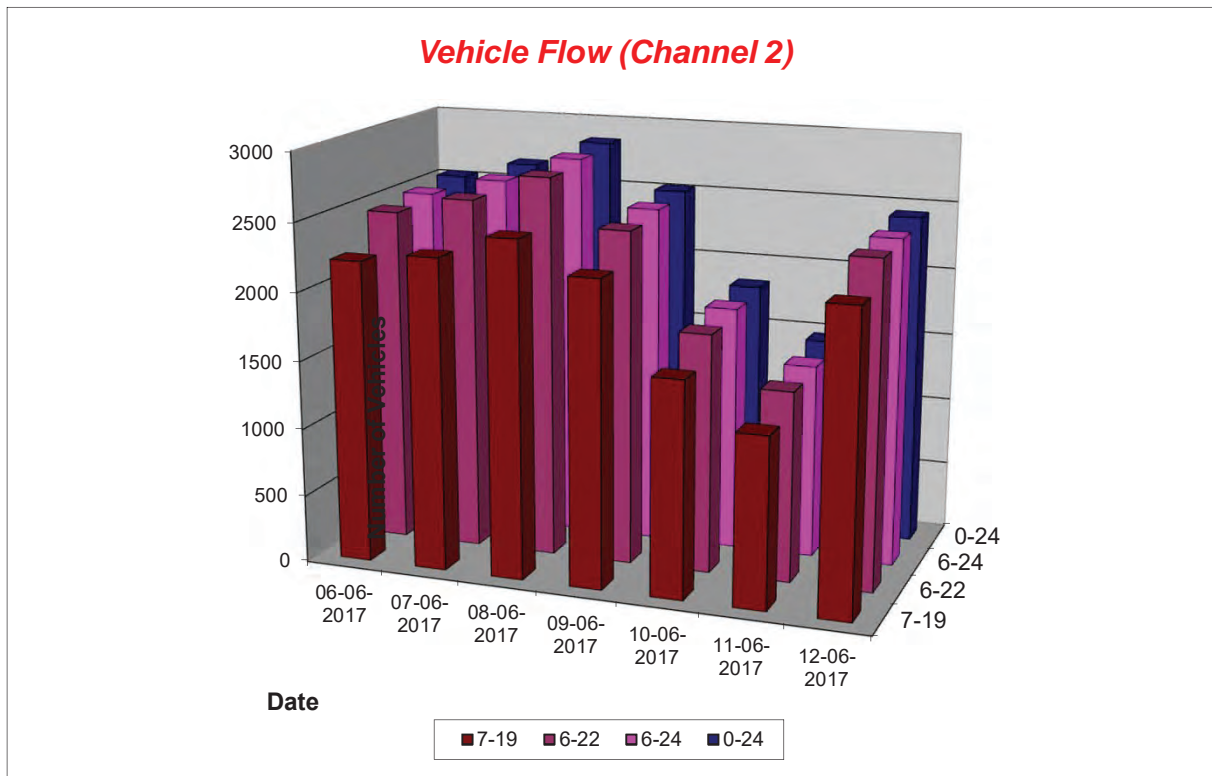
Produced by Road Data Services Ltd.

Channel 2 - Southbound

Vehicle Flow

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday	5 Day Ave	7 Day Ave
1	6	1	1	3	14	6	2	3	5
2	4	1	2	1	5	11	4	2	4
3	2	1	1	1	2	5	0	1	2
4	1	1	1	2	4	1	1	1	2
5	4	5	5	6	1	3	6	5	4
6	21	19	19	19	9	14	26	21	18
7	65	69	63	51	17	8	56	61	47
8	212	225	217	214	52	22	220	218	166
9	361	368	353	328	130	48	360	354	278
10	209	220	219	226	159	94	181	211	187
11	150	128	171	141	173	147	127	143	148
12	150	160	147	166	172	136	140	153	153
13	127	154	155	139	178	149	156	146	151
14	129	128	157	152	147	129	130	139	139
15	118	124	160	137	128	125	133	134	132
16	214	213	232	225	110	141	198	216	190
17	198	206	245	203	129	108	174	205	180
18	201	230	220	186	114	81	259	219	184
19	150	132	185	116	93	76	114	139	124
20	84	106	126	75	78	66	73	93	87
21	61	72	83	56	39	36	40	62	55
22	31	52	52	30	36	34	22	37	37
23	24	24	30	26	27	23	12	23	24
24	10	17	8	20	20	5	6	12	12
7-19	2219	2288	2461	2233	1585	1256	2192	2279	2033
6-22	2460	2587	2785	2445	1755	1400	2383	2532	2259
6-24	2494	2628	2823	2491	1802	1428	2401	2567	2295
0-24	2532	2656	2852	2523	1837	1468	2440	2601	2330



# Salph End ATC 3, Hookhams Lane (Southern Site)

Produced by Road Data Services Ltd.

## Channel 2 - Southbound

## Average Speed

Week 1

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	30.8	26.1	23.2	28.7	27.3	24.2	35.0
2	25.5	27.3	25.2	31.4	28.3	25.6	25.9
3	27.3	26.6	25.2	21.2	25.1	29.6	-
4	26.6	28.2	32.3	22.8	25.7	25.7	34.9
5	26.8	29.0	25.2	28.8	30.1	26.3	25.6
6	28.1	28.8	30.1	28.3	29.3	26.6	28.5
7	27.3	27.5	26.4	28.5	28.6	27.5	27.6
8	26.9	26.4	26.3	26.8	24.6	25.6	26.2
9	25.0	25.4	25.4	26.0	26.4	25.8	25.2
10	25.4	25.0	24.8	25.5	25.7	26.1	25.4
11	25.0	25.1	24.5	25.1	25.7	26.2	25.5
12	25.8	24.4	24.6	24.6	25.9	24.4	25.1
13	25.9	26.1	25.6	26.3	26.0	25.8	25.4
14	25.2	25.7	25.4	25.4	27.0	25.5	25.5
15	25.5	25.1	26.0	25.1	25.3	25.7	24.3
16	25.2	25.7	24.8	25.4	25.1	25.2	25.8
17	25.5	25.8	25.1	26.0	26.9	26.2	26.0
18	26.1	25.7	25.7	26.6	26.2	26.6	26.1
19	26.4	25.6	26.1	26.9	26.4	26.4	26.4
20	25.7	27.0	24.8	26.4	25.7	25.9	26.8
21	25.4	25.2	26.3	25.1	26.0	27.5	26.7
22	27.0	26.1	25.1	26.3	24.6	26.2	24.8
23	25.8	26.4	27.5	26.7	26.5	24.0	26.2
24	26.4	26.5	22.0	26.7	26.5	23.4	25.2

10-12	25.4	24.7	24.5	24.9	25.8	25.3	25.3
14-16	25.3	25.5	25.3	25.3	25.2	25.4	25.2
0-24	25.7	25.7	25.4	25.9	26.0	25.8	25.7

Average	25.7
---------	------

## Channel 2 - Southbound

## 85th Percentile

Hr Ending	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
1	38.6	-	-	30.4	30.8	26.4	37.5
2	28.7	-	29.0	-	33.9	31.0	30.8
3	29.5	-	-	-	25.3	31.6	-
4	-	-	-	25.4	28.2	-	-
5	29.1	32.3	28.1	32.6	-	29.4	30.0
6	33.2	31.8	34.2	34.7	32.5	31.5	31.3
7	31.7	31.9	30.6	31.3	32.7	31.4	31.0
8	30.3	30.1	29.8	30.5	29.2	30.4	29.9
9	29.1	29.3	28.9	29.8	30.5	29.5	28.8
10	29.8	28.4	28.4	29.7	29.6	30.4	29.3
11	28.5	28.7	28.5	29.1	29.2	30.0	29.8
12	30.0	28.6	28.6	28.7	29.7	28.7	28.5
13	29.9	30.1	29.6	29.7	30.1	29.5	29.2
14	29.0	29.5	29.6	29.5	30.3	29.5	29.3
15	29.6	29.2	29.4	28.8	29.6	29.5	28.5
16	28.7	29.4	28.8	29.4	29.3	29.4	29.3
17	29.3	29.5	29.2	30.2	30.8	29.8	29.8
18	29.7	29.3	29.4	30.2	29.3	29.9	30.0
19	29.9	29.2	29.8	31.5	30.4	30.6	30.8
20	29.5	30.5	29.5	30.4	29.8	30.2	30.1
21	29.2	29.6	30.2	29.1	30.0	31.3	30.8
22	31.3	29.7	29.6	29.9	29.8	30.3	29.6
23	30.3	28.7	31.1	29.3	33.0	27.1	29.9
24	29.2	33.0	27.5	29.7	29.6	28.8	30.1

10-12	29.5	28.7	28.5	28.8	29.6	29.5	29.3
14-16	29.3	29.3	29.2	29.1	29.4	29.4	29.1
0-24	29.7	29.5	29.4	29.8	29.9	29.9	29.7

85th %ile	29.7
-----------	------



# Salph End ATC 3, Hookhams Lane (Southern Site)

Produced by Road Data Services Ltd.

Channel 2 - Southbound

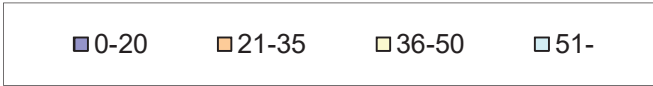
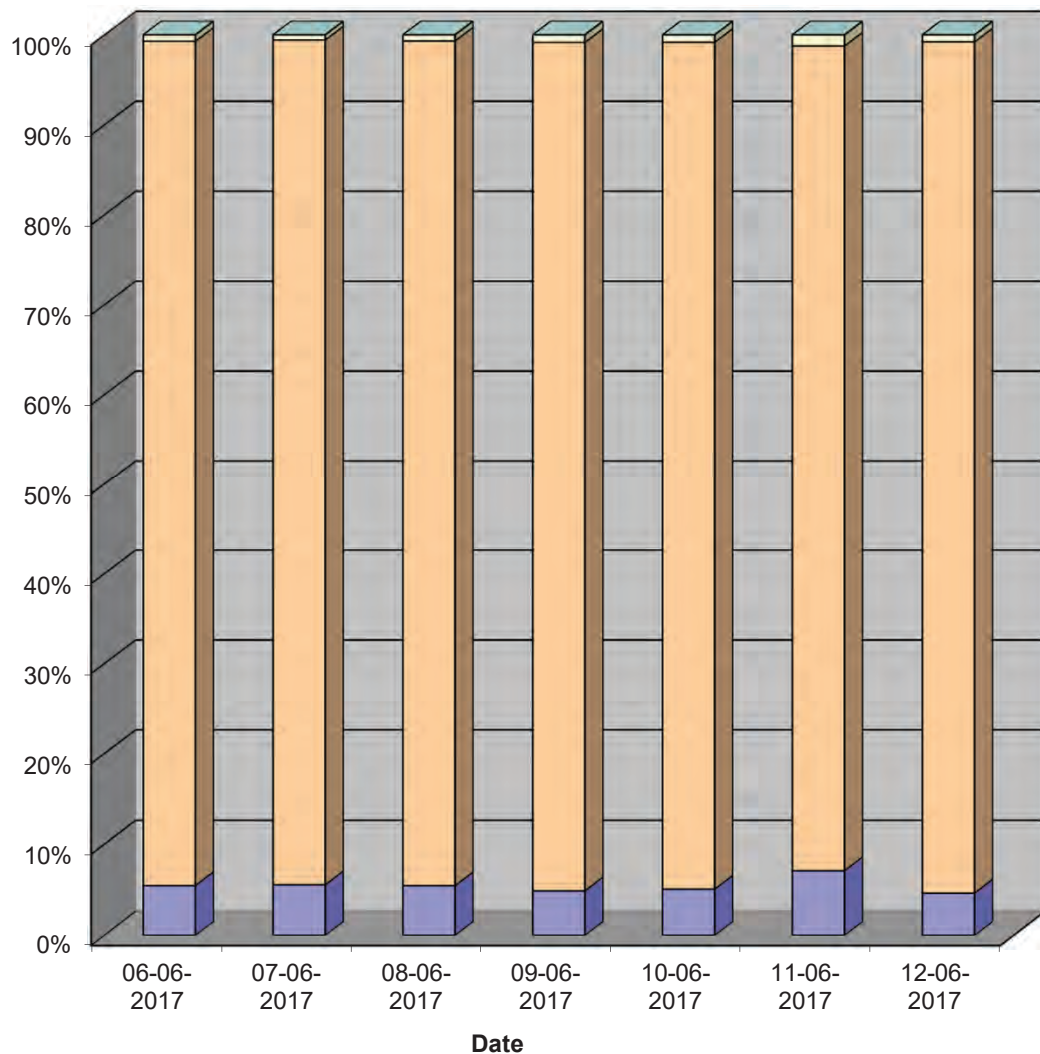
Speed Summary

Week 1

Speed (MPH)	06-06-17 Tuesday	07-06-17 Wednesday	08-06-17 Thursday	09-06-17 Friday	10-06-17 Saturday	11-06-17 Sunday	12-06-17 Monday
0-20	138	147	155	123	93	104	113
21-35	2376	2494	2678	2379	1729	1346	2308
36-50	18	15	19	21	15	18	19
51-	0	0	0	0	0	0	0

<b>TOTAL</b>	<b>2532</b>	<b>2656</b>	<b>2852</b>	<b>2523</b>	<b>1837</b>	<b>1468</b>	<b>2440</b>
--------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

**Speed Summary (MPH)**

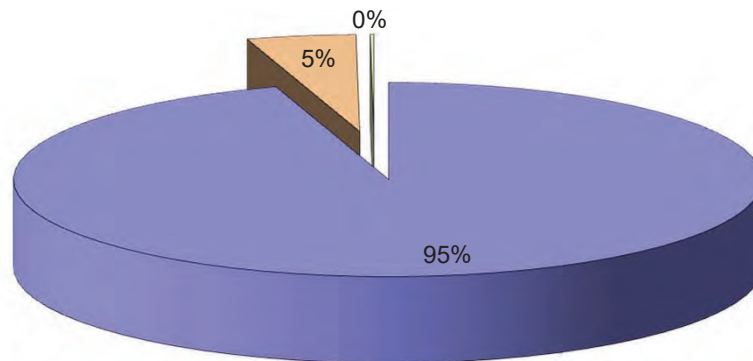


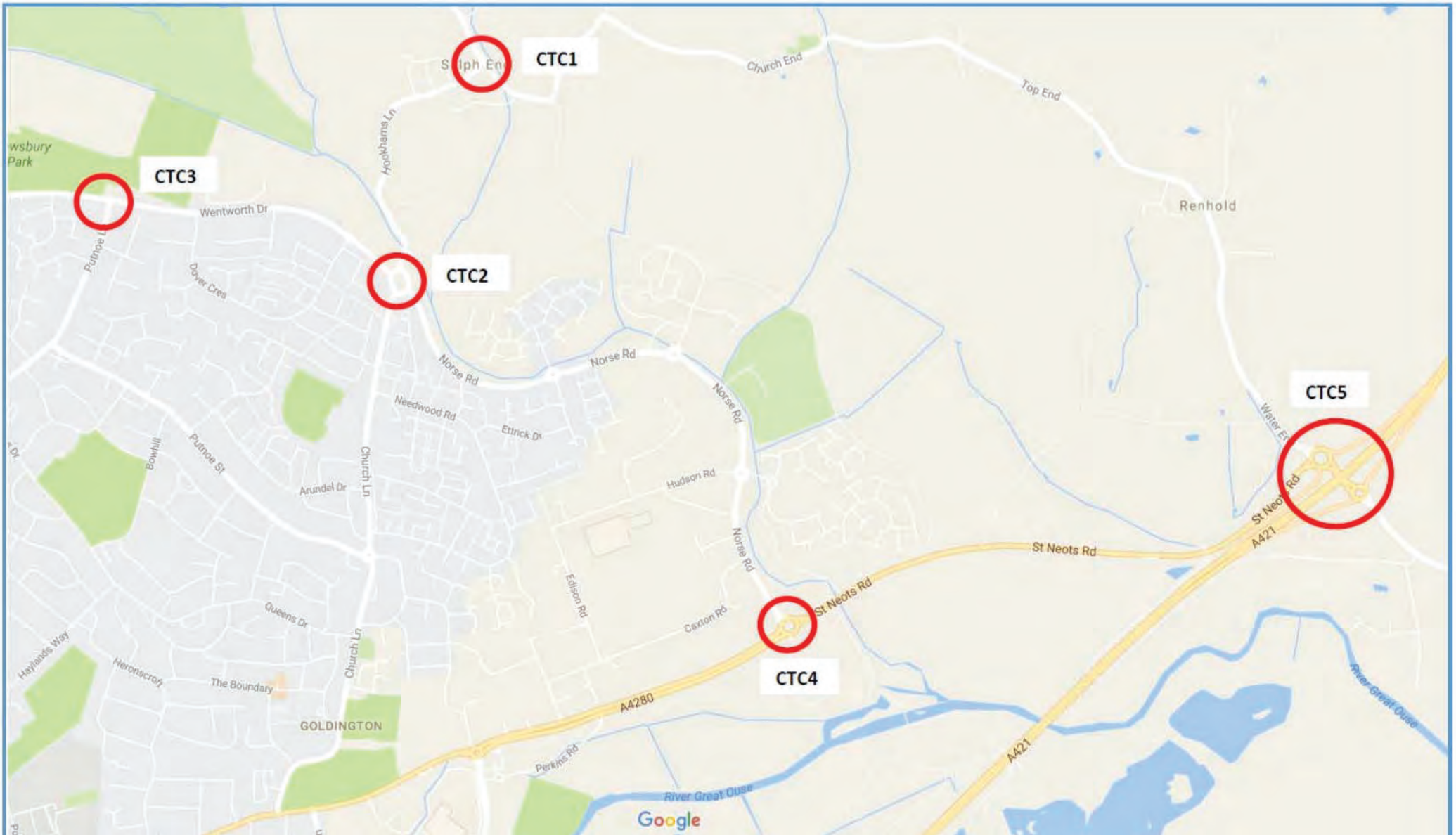
# Salph End ATC 3, Hookhams Lane (Southern Site)

Produced by Road Data Services Ltd.

Channel 2 - Southbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
06-06-17					
7-19	2093	124	2	2219	
6-22	2324	133	3	2460	
6-24	2357	134	3	2494	
0-24	2390	139	3	2532	
07-06-17					
7-19	2152	129	7	2288	
6-22	2437	143	7	2587	
6-24	2476	145	7	2628	
0-24	2500	149	7	2656	
08-06-17					
7-19	2332	123	6	2461	
6-22	2646	133	6	2785	
6-24	2684	133	6	2823	
0-24	2709	137	6	2852	
09-06-17					
7-19	2111	122	0	2233	
6-22	2318	127	0	2445	
6-24	2363	128	0	2491	
0-24	2389	134	0	2523	
10-06-17					
7-19	1542	37	6	1585	
6-22	1707	42	6	1755	
6-24	1753	43	6	1802	
0-24	1782	49	6	1837	
11-06-17					
7-19	1230	25	1	1256	
6-22	1370	28	2	1400	
6-24	1398	28	2	1428	
0-24	1437	29	2	1468	
12-06-17					
7-19	2070	120	2	2192	
6-22	2255	126	2	2383	
6-24	2273	126	2	2401	
0-24	2309	129	2	2440	
Average					
7-19	1933	97	3	2033	
6-22	2151	105	4	2259	
6-24	2186	105	4	2295	
0-24	2217	109	4	2330	

**Total Vehicle Class Distribution**





- CTC1 – Junction 1 Hookhams Lane / Ravensden Road / Wilden Road
- CTC2 – Junction 2 Hookhams Lane / Norse Road / Church Lane / Wentworth Drive
- CTC3 – Junction 3 Wentworth Drive / Putnoe Lane
- CTC4 – Junction 4 Norse Road / A4280 St Neots Road / A4280 Goldington Road
- CTC5 – Junction 5 A421 / St Neots Road / A4280

# ***Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017***

**Produced by Road Data Services Ltd**

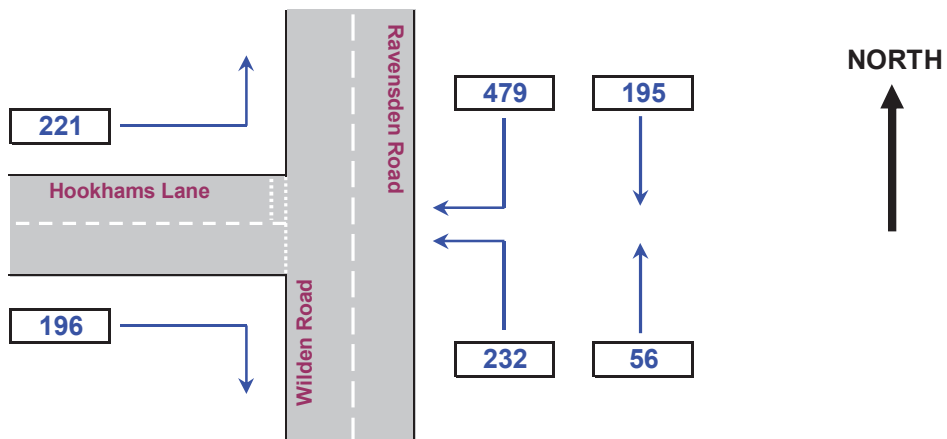
**Junction: (1) Ravensden Road / Wilden Road / Hookhams Lane**

Vehicle Class:

Start Time:

End Time:

Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

**Important** This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (1) Ravensden Road / Wilden Road / Hookhams Lane

Approach: Ravensden Road

TIME	S/B to Wilden Road								Right to Hookhams Lane							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	9	2	1	0	0	12	0	0	18	6	2	0	0	26
0715 - 0730	0	0	11	2	0	0	0	13	0	0	23	6	0	0	0	29
0730 - 0745	0	0	24	0	1	0	0	25	0	0	32	7	0	0	0	39
0745 - 0800	0	0	22	1	0	0	0	23	0	0	51	1	0	0	0	52
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>73</b>	<b>0</b>	<b>0</b>	<b>124</b>	<b>20</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>146</b>
0800 - 0815	0	0	37	5	1	0	0	43	0	0	55	7	0	0	1	63
0815 - 0830	0	0	18	1	1	0	1	21	0	0	65	6	0	0	0	71
0830 - 0845	0	0	17	2	0	0	0	19	0	0	48	7	0	0	0	55
0845 - 0900	0	0	18	0	0	0	0	18	0	0	55	4	1	0	1	61
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>90</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>223</b>	<b>24</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>250</b>
0900 - 0915	0	0	9	1	1	0	0	11	0	0	44	8	0	0	1	53
0915 - 0930	0	0	7	3	0	0	0	10	0	0	27	2	1	0	0	30
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>83</b>

<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>172</b>	<b>17</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>195</b>	<b>0</b>	<b>0</b>	<b>418</b>	<b>54</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>479</b>
----------------------	----------	----------	------------	-----------	----------	----------	----------	------------	----------	----------	------------	-----------	----------	----------	----------	------------

1630 - 1645	0	0	5	1	0	0	0	6	0	0	12	5	1	0	0	18
1645 - 1700	0	0	8	1	1	0	0	10	0	0	22	3	0	0	0	25
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>43</b>
1700 - 1715	0	0	13	4	0	0	0	17	0	0	18	3	0	0	0	21
1715 - 1730	0	0	20	3	0	0	0	23	0	0	33	2	0	0	0	35
1730 - 1745	0	0	7	1	0	0	0	8	0	1	21	4	0	0	0	26
1745 - 1800	0	0	12	1	0	0	0	13	0	0	17	5	0	0	0	22
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>52</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>0</b>	<b>1</b>	<b>89</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>104</b>
1800 - 1815	0	0	8	0	3	0	0	11	0	0	21	1	2	0	0	24
1815 - 1830	0	0	5	3	0	0	0	8	0	0	19	1	0	0	0	20
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>44</b>

<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>78</b>	<b>14</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>96</b>	<b>0</b>	<b>1</b>	<b>163</b>	<b>24</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>191</b>
----------------------	----------	----------	-----------	-----------	----------	----------	----------	-----------	----------	----------	------------	-----------	----------	----------	----------	------------

# Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (1) Ravensden Road / Wilden Road / Hookhams Lane

Approach: Wilden Road

TIME	Left to Hookhams Lane								N/B to Ravensden Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	5	0	0	0	0	5	0	0	4	0	0	0	0	4
0715 - 0730	0	0	9	5	2	0	0	16	0	0	4	0	0	0	0	4
0730 - 0745	0	0	16	2	0	0	0	18	0	0	5	0	0	0	0	5
0745 - 0800	1	0	20	4	0	0	0	25	0	0	5	2	0	0	0	7
<b>Hourly Total</b>	<b>1</b>	<b>0</b>	<b>50</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>
0800 - 0815	0	1	26	2	0	0	0	29	0	0	4	1	1	0	0	6
0815 - 0830	0	0	15	2	0	0	0	17	0	0	7	0	0	0	0	7
0830 - 0845	0	0	19	2	0	0	0	21	0	0	4	0	0	0	0	4
0845 - 0900	0	0	33	9	2	0	0	44	0	0	8	1	0	0	1	10
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>93</b>	<b>15</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>111</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>27</b>
0900 - 0915	0	0	36	1	0	0	0	37	0	0	2	2	2	0	0	6
0915 - 0930	0	0	17	2	1	0	0	20	0	0	2	1	0	0	0	3
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>53</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>9</b>

<b>Session Total</b>	<b>1</b>	<b>1</b>	<b>196</b>	<b>29</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>232</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>56</b>
----------------------	----------	----------	------------	-----------	----------	----------	----------	------------	----------	----------	-----------	----------	----------	----------	----------	-----------

1630 - 1645	0	0	22	2	0	0	0	24	0	0	11	3	1	0	0	15
1645 - 1700	0	0	16	3	0	0	0	19	0	0	22	2	0	0	0	24
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>39</b>
1700 - 1715	0	0	10	5	1	0	0	16	0	0	21	2	0	0	0	23
1715 - 1730	0	0	23	4	0	0	0	27	0	0	26	4	0	0	0	30
1730 - 1745	0	0	22	2	0	0	0	24	0	1	17	0	0	0	0	18
1745 - 1800	0	0	29	5	0	0	0	34	0	0	28	2	0	0	0	30
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>84</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>101</b>	<b>0</b>	<b>1</b>	<b>92</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>101</b>
1800 - 1815	0	0	14	2	0	0	0	16	0	0	18	1	1	0	0	20
1815 - 1830	0	0	9	0	0	0	0	9	0	0	12	1	0	0	0	13
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>33</b>

<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>145</b>	<b>23</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>169</b>	<b>0</b>	<b>1</b>	<b>155</b>	<b>15</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>173</b>
----------------------	----------	----------	------------	-----------	----------	----------	----------	------------	----------	----------	------------	-----------	----------	----------	----------	------------

# Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (1) Ravensden Road / Wilden Road / Hookhams Lane

Approach: Hookhams Lane

TIME	Left to Ravensden Road								Right to Wilden Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	6	6	1	0	0	13	0	0	5	1	1	1	0	8
0715 - 0730	0	0	9	4	0	0	0	13	0	0	9	3	0	0	0	12
0730 - 0745	0	0	19	3	0	0	0	22	0	0	10	2	0	0	0	12
0745 - 0800	0	0	27	4	1	0	0	32	0	0	15	2	0	0	0	17
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>17</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>49</b>
0800 - 0815	0	0	19	1	0	0	0	20	0	0	14	1	0	0	0	15
0815 - 0830	0	0	27	2	0	0	0	29	0	0	24	1	0	0	0	25
0830 - 0845	0	0	24	4	1	0	0	29	0	0	32	5	2	0	0	39
0845 - 0900	0	1	20	1	2	0	0	24	0	0	32	4	1	0	0	37
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>90</b>	<b>8</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>102</b>	<b>0</b>	<b>0</b>	<b>102</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>116</b>
0900 - 0915	0	0	13	4	2	0	0	19	0	0	12	1	0	0	0	13
0915 - 0930	0	0	16	3	1	0	0	20	0	0	13	4	1	0	0	18
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>31</b>

<b>Session Total</b>	<b>0</b>	<b>1</b>	<b>180</b>	<b>32</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>221</b>	<b>0</b>	<b>0</b>	<b>166</b>	<b>24</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>196</b>
----------------------	----------	----------	------------	-----------	----------	----------	----------	------------	----------	----------	------------	-----------	----------	----------	----------	------------

1630 - 1645	0	0	31	6	0	0	0	37	0	1	28	1	0	0	0	30
1645 - 1700	0	0	29	1	0	0	0	30	0	0	22	1	1	0	0	24
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>0</b>	<b>1</b>	<b>50</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>54</b>
1700 - 1715	0	0	44	5	0	0	0	49	0	0	31	3	0	0	0	34
1715 - 1730	0	0	34	7	1	0	1	43	0	0	32	7	1	0	0	40
1730 - 1745	0	0	52	4	0	0	0	56	0	2	16	3	0	0	0	21
1745 - 1800	0	0	39	1	0	0	0	40	0	0	19	2	0	0	0	21
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>169</b>	<b>17</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>188</b>	<b>0</b>	<b>2</b>	<b>98</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>116</b>
1800 - 1815	0	0	29	2	0	0	0	31	0	0	16	0	0	0	0	16
1815 - 1830	1	0	27	4	0	0	0	32	0	0	9	1	0	0	0	10
<b>Hourly Total</b>	<b>1</b>	<b>0</b>	<b>56</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>

<b>Session Total</b>	<b>1</b>	<b>0</b>	<b>285</b>	<b>30</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>318</b>	<b>0</b>	<b>3</b>	<b>173</b>	<b>18</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>196</b>
----------------------	----------	----------	------------	-----------	----------	----------	----------	------------	----------	----------	------------	-----------	----------	----------	----------	------------

# Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (1) Ravensden Road / Wilden Road / Hookhams Lane

TIME	Ravensden Rd	Wilden Rd (Right Turn)
	Lane 1	Lane 1
0700	1	0
0705	2	0
0710	1	0
0715	3	0
0720	1	0
0725	3	0
0730	5	0
0735	6	0
0740	1	0
0745	3	0
0750	3	3
0755	2	0
0800	7	0
0805	5	0
0810	5	0
0815	8	1
0820	3	0
0825	6	0
0830	3	2
0835	1	1
0840	3	1
0845	3	1
0850	5	2
0855	4	0
0900	2	0
0905	2	0
0910	2	1
0915	3	0
0920	1	0
0925	2	0

TIME	Ravensden Rd	Wilden Rd (Right Turn)
	Lane 1	Lane 1
1630	1	0
1635	2	3
1640	2	3
1645	3	0
1650	2	1
1655	3	2
1700	2	1
1705	2	2
1710	2	1
1715	4	1
1720	2	2
1725	1	2
1730	3	3
1735	3	1
1740	3	0
1745	4	1
1750	1	0
1755	2	0
1800	2	2
1805	1	0
1810	2	0
1815	3	4
1820	1	1
1825	1	1



# ***Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017***

**Produced by Road Data Services Ltd**

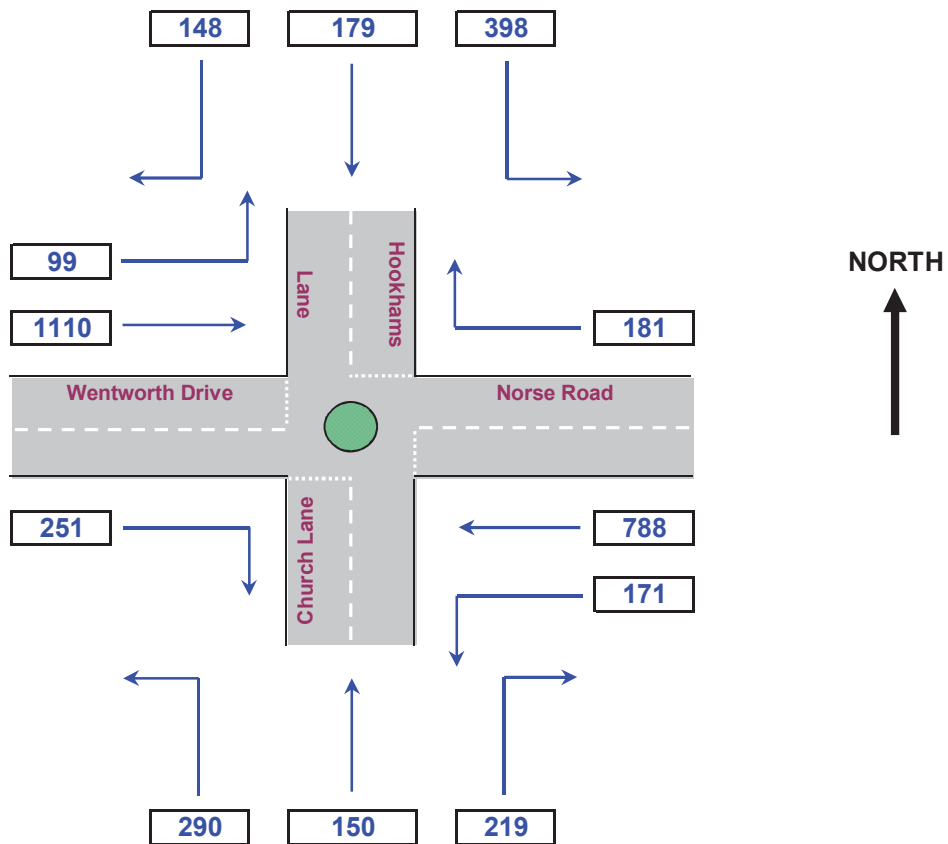
**Junction: (2) Hookhams Lane / Norse Road / Church Lane / Wentworth Drive**

Vehicle Class:

Start Time:

End Time:

Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

**Important** This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (2) Hookhams Lane / Norse Road / Church Lane / Wentworth Drive

Approach: Hookhams Lane

TIME	Left to Norse Road								S/B to Church Lane								Right to Wentworth Drive							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	13	4	1	0	0	18	0	0	8	2	1	0	0	11	0	0	2	0	0	0	0	2
0715 - 0730	0	0	25	6	0	0	0	31	0	0	0	6	0	0	0	6	0	0	8	0	2	0	0	10
0730 - 0745	0	0	22	6	0	0	0	28	0	0	18	4	0	0	0	22	0	0	8	1	0	0	0	9
0745 - 0800	0	0	35	1	0	0	0	36	0	0	23	1	0	0	0	24	1	0	14	2	0	0	0	17
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>95</b>	<b>17</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>113</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>1</b>	<b>0</b>	<b>32</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>38</b>
0800 - 0815	0	0	45	6	1	0	0	52	0	1	23	3	0	0	0	27	0	0	15	1	0	0	1	17
0815 - 0830	0	0	47	7	0	0	0	54	0	0	22	1	0	0	0	23	0	0	9	1	0	0	0	10
0830 - 0845	0	0	44	5	0	0	0	49	0	0	9	1	0	0	0	10	0	0	22	2	0	0	0	24
0845 - 0900	0	0	50	4	1	0	1	56	0	0	13	5	0	0	0	18	0	0	20	5	2	0	0	27
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>186</b>	<b>22</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>211</b>	<b>0</b>	<b>1</b>	<b>67</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>78</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>78</b>
0900 - 0915	0	0	47	6	0	0	0	53	0	0	16	3	1	0	0	20	0	0	19	0	0	0	0	19
0915 - 0930	0	0	19	2	0	0	0	21	0	0	15	2	1	0	0	18	0	0	12	0	0	0	1	13
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>32</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>347</b>	<b>47</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>398</b>	<b>0</b>	<b>1</b>	<b>147</b>	<b>28</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>179</b>	<b>1</b>	<b>0</b>	<b>129</b>	<b>12</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>148</b>
1630 - 1645	0	0	16	2	0	0	0	18	0	0	9	4	0	0	0	13	0	0	14	1	1	0	0	16
1645 - 1700	0	0	15	4	0	0	0	19	0	0	12	2	0	0	0	14	0	0	6	1	0	0	0	7
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>23</b>
1700 - 1715	0	0	10	2	0	0	0	12	0	0	13	4	0	0	0	17	0	0	4	2	0	0	0	6
1715 - 1730	0	0	21	1	0	0	0	22	0	0	21	2	0	0	0	23	0	0	13	3	1	0	0	17
1730 - 1745	0	0	16	2	0	0	0	18	0	1	15	5	0	0	0	21	0	0	10	1	0	0	0	11
1745 - 1800	0	0	14	5	0	0	0	19	0	0	19	2	0	0	0	21	0	0	15	1	0	0	0	16
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>0</b>	<b>1</b>	<b>68</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>50</b>
1800 - 1815	0	0	9	2	1	0	0	12	0	0	15	0	1	0	0	16	0	0	13	2	0	0	0	15
1815 - 1830	0	0	12	0	0	0	0	12	0	0	9	1	1	0	0	11	0	0	7	0	0	0	0	7
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>113</b>	<b>18</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>132</b>	<b>0</b>	<b>1</b>	<b>113</b>	<b>20</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>136</b>	<b>0</b>	<b>0</b>	<b>82</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>95</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (2) Hookhams Lane / Norse Road / Church Lane / Wentworth Drive

Approach: Norse Road

TIME	Left to Church Lane								W/B to Wentworth Drive								Right to Hookhams Lane							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	4	0	0	0	1	5	0	1	33	4	1	0	0	39	0	0	2	3	2	0	0	7
0715 - 0730	0	0	7	0	0	0	1	8	0	0	38	3	3	0	0	44	0	0	8	3	0	0	0	11
0730 - 0745	0	0	5	3	0	0	2	10	0	0	58	8	1	0	0	67	0	0	14	0	0	0	0	14
0745 - 0800	0	0	8	2	0	0	1	11	0	0	71	9	1	0	0	81	0	0	16	2	1	0	0	19
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>34</b>	<b>0</b>	<b>1</b>	<b>200</b>	<b>24</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>231</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>8</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>51</b>
0800 - 0815	0	0	14	4	0	1	2	21	0	0	97	8	1	1	0	107	0	0	10	1	0	1	0	12
0815 - 0830	0	0	21	0	0	0	1	22	0	0	116	11	0	1	0	128	0	0	22	3	0	0	0	25
0830 - 0845	0	0	34	1	0	0	1	36	0	0	92	13	1	0	0	106	0	0	33	4	3	0	0	40
0845 - 0900	0	0	17	3	1	0	1	22	0	0	72	7	1	1	0	81	0	0	24	3	4	0	0	31
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>86</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>377</b>	<b>39</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>422</b>	<b>0</b>	<b>0</b>	<b>89</b>	<b>11</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>108</b>
0900 - 0915	0	0	13	2	2	0	2	19	0	0	62	7	5	0	0	74	0	0	7	2	0	0	0	9
0915 - 0930	0	0	12	2	2	0	1	17	0	1	46	11	3	0	0	61	0	0	10	2	1	0	0	13
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>36</b>	<b>0</b>	<b>1</b>	<b>108</b>	<b>18</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>22</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>17</b>	<b>5</b>	<b>1</b>	<b>13</b>	<b>171</b>	<b>0</b>	<b>2</b>	<b>685</b>	<b>81</b>	<b>17</b>	<b>3</b>	<b>0</b>	<b>788</b>	<b>0</b>	<b>0</b>	<b>146</b>	<b>23</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>181</b>
1630 - 1645	0	0	18	3	0	0	0	21	0	1	99	15	1	0	0	116	0	0	34	3	0	0	0	37
1645 - 1700	0	0	24	5	2	0	2	33	0	1	105	9	1	0	0	116	0	0	19	6	0	0	0	25
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>54</b>	<b>0</b>	<b>2</b>	<b>204</b>	<b>24</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>232</b>	<b>0</b>	<b>0</b>	<b>53</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>62</b>
1700 - 1715	0	0	23	10	1	0	1	35	0	0	149	13	1	0	0	163	0	0	47	5	0	0	0	52
1715 - 1730	0	1	40	6	0	0	1	48	0	0	139	8	3	0	0	150	0	0	31	3	0	0	1	35
1730 - 1745	0	0	40	1	0	0	1	42	0	0	110	8	0	1	0	119	0	0	38	2	0	0	0	40
1745 - 1800	0	0	27	1	0	0	2	30	1	1	106	7	1	1	1	118	0	0	33	1	0	0	0	34
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>130</b>	<b>18</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>155</b>	<b>1</b>	<b>1</b>	<b>504</b>	<b>36</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>550</b>	<b>0</b>	<b>0</b>	<b>149</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>161</b>
1800 - 1815	0	1	23	2	0	0	1	27	0	0	117	8	0	0	0	125	0	0	19	0	0	0	0	19
1815 - 1830	0	0	24	0	0	0	1	25	0	0	102	6	1	0	0	109	0	0	15	0	0	0	0	15
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>47</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>52</b>	<b>0</b>	<b>0</b>	<b>219</b>	<b>14</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>234</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>
<b>Session Total</b>	<b>0</b>	<b>2</b>	<b>219</b>	<b>28</b>	<b>3</b>	<b>0</b>	<b>9</b>	<b>261</b>	<b>1</b>	<b>3</b>	<b>927</b>	<b>74</b>	<b>8</b>	<b>2</b>	<b>1</b>	<b>1016</b>	<b>0</b>	<b>0</b>	<b>236</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>257</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (2) Hookhams Lane / Norse Road / Church Lane / Wentworth Drive

Approach: Church Lane

TIME	Left to Wentworth Drive								N/B to Hookhams Lane								Right to Norse Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	4	0	0	0	1	5	0	0	8	3	1	0	0	12	0	0	16	3	0	0	1	20
0715 - 0730	0	0	7	2	1	0	0	10	0	0	11	2	0	0	0	13	0	0	15	1	0	0	2	18
0730 - 0745	0	0	12	0	1	0	1	14	0	0	7	4	0	0	0	11	0	0	19	5	0	0	1	25
0745 - 0800	0	0	20	1	0	0	0	21	0	0	20	4	0	0	0	24	0	0	14	1	1	0	1	17
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>80</b>
0800 - 0815	0	0	31	3	0	0	2	36	0	0	17	1	0	0	0	18	0	0	30	2	0	0	1	33
0815 - 0830	0	0	27	3	0	0	1	31	0	0	19	1	0	0	0	20	0	0	17	3	0	0	1	21
0830 - 0845	0	2	46	1	0	0	1	50	0	1	14	3	0	0	0	18	0	0	17	2	1	0	1	21
0845 - 0900	0	0	47	2	0	0	1	50	0	0	9	0	0	0	0	9	0	0	30	1	1	0	3	35
<b>Hourly Total</b>	<b>0</b>	<b>2</b>	<b>151</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>167</b>	<b>0</b>	<b>1</b>	<b>59</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>94</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>110</b>
0900 - 0915	0	0	45	1	0	0	1	47	0	0	10	3	0	0	0	13	0	0	14	1	0	1	2	18
0915 - 0930	0	0	23	2	1	0	0	26	0	0	11	1	0	0	0	12	0	0	9	1	0	0	1	11
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>73</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>29</b>
<b>Session Total</b>	<b>0</b>	<b>2</b>	<b>262</b>	<b>15</b>	<b>3</b>	<b>0</b>	<b>8</b>	<b>290</b>	<b>0</b>	<b>1</b>	<b>126</b>	<b>22</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>150</b>	<b>0</b>	<b>0</b>	<b>181</b>	<b>20</b>	<b>3</b>	<b>1</b>	<b>14</b>	<b>219</b>
1630 - 1645	0	0	24	2	0	0	0	26	0	0	14	2	1	0	0	17	0	0	16	2	0	0	1	19
1645 - 1700	0	0	25	4	0	0	1	30	0	0	21	3	0	0	0	24	0	0	13	3	0	1	2	19
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>38</b>
1700 - 1715	2	0	31	3	1	0	0	37	0	0	19	1	0	0	0	20	0	0	18	5	0	0	1	24
1715 - 1730	0	0	20	1	1	0	0	22	0	0	9	5	1	0	0	15	0	0	19	3	0	0	0	22
1730 - 1745	0	0	20	0	0	0	1	21	0	2	22	0	0	0	0	24	0	0	16	0	0	0	3	19
1745 - 1800	0	0	25	0	0	0	0	25	0	0	11	2	0	0	0	13	0	0	25	0	0	0	1	26
<b>Hourly Total</b>	<b>2</b>	<b>0</b>	<b>96</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>105</b>	<b>0</b>	<b>2</b>	<b>61</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>78</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>91</b>
1800 - 1815	0	0	25	0	0	0	1	26	0	0	18	0	0	0	0	18	0	0	24	0	0	0	1	25
1815 - 1830	0	0	25	1	1	0	0	27	1	0	11	4	0	0	0	16	0	0	22	2	0	0	2	26
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>53</b>	<b>1</b>	<b>0</b>	<b>29</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>51</b>
<b>Session Total</b>	<b>2</b>	<b>0</b>	<b>195</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>214</b>	<b>1</b>	<b>2</b>	<b>125</b>	<b>17</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>147</b>	<b>0</b>	<b>0</b>	<b>153</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>11</b>	<b>180</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (2) Hookhams Lane / Norse Road / Church Lane / Wentworth Drive

Approach: Wentworth Drive

TIME	Left to Hookhams Lane								E/B to Norse Road								Right to Church Lane							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	2	2	0	0	0	4	0	0	68	9	0	0	0	77	0	0	6	0	0	0	0	6
0715 - 0730	0	0	2	1	0	0	0	3	0	1	81	16	3	2	0	103	0	0	7	0	0	0	2	9
0730 - 0745	0	0	5	2	0	0	0	7	0	0	98	11	0	0	0	109	0	0	9	2	1	0	0	12
0745 - 0800	0	0	8	0	0	0	0	8	0	0	113	9	1	0	0	123	0	0	13	0	0	0	1	14
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>1</b>	<b>360</b>	<b>45</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>412</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>41</b>
0800 - 0815	0	0	11	1	0	0	0	12	0	1	108	13	0	0	1	123	0	0	20	0	0	0	0	20
0815 - 0830	0	0	16	0	0	0	0	16	0	0	135	9	3	3	2	152	0	0	23	2	0	0	2	27
0830 - 0845	0	0	11	2	0	0	0	13	0	0	127	12	3	2	0	144	0	0	30	1	0	0	0	31
0845 - 0900	0	0	12	0	0	0	0	12	0	0	104	7	1	1	1	114	0	0	47	1	1	0	1	50
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>53</b>	<b>0</b>	<b>1</b>	<b>474</b>	<b>41</b>	<b>7</b>	<b>6</b>	<b>4</b>	<b>533</b>	<b>0</b>	<b>0</b>	<b>120</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>128</b>
0900 - 0915	0	0	10	1	2	0	0	13	0	0	90	6	0	1	1	98	0	0	50	3	0	0	1	54
0915 - 0930	0	0	8	2	1	0	0	11	0	0	58	5	2	1	1	67	0	0	26	0	0	0	2	28
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>148</b>	<b>11</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>165</b>	<b>0</b>	<b>0</b>	<b>76</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>82</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>85</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>0</b>	<b>2</b>	<b>982</b>	<b>97</b>	<b>13</b>	<b>10</b>	<b>6</b>	<b>1110</b>	<b>0</b>	<b>0</b>	<b>231</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>9</b>	<b>251</b>
1630 - 1645	0	0	11	1	0	0	0	12	0	0	84	6	5	0	0	95	0	0	19	0	0	0	0	19
1645 - 1700	0	0	15	0	0	0	0	15	0	0	50	10	0	0	0	60	0	0	9	1	1	0	1	12
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>134</b>	<b>16</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>155</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>31</b>
1700 - 1715	0	0	19	1	0	0	0	20	0	0	57	3	0	0	0	60	0	0	22	1	0	0	0	23
1715 - 1730	0	0	15	2	0	0	0	17	0	0	60	3	0	0	0	63	0	0	25	2	1	0	0	28
1730 - 1745	0	0	10	4	0	0	0	14	0	0	66	4	0	0	0	70	0	0	15	1	0	0	1	17
1745 - 1800	0	0	15	2	0	0	0	17	0	0	66	7	0	0	0	73	0	0	15	1	0	0	1	17
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>59</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>249</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>266</b>	<b>0</b>	<b>0</b>	<b>77</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>85</b>
1800 - 1815	0	0	11	1	0	0	0	12	0	0	57	5	0	0	0	62	0	0	16	1	0	0	0	17
1815 - 1830	0	0	10	2	0	0	0	12	0	0	55	1	1	0	0	57	0	0	14	0	0	0	1	15
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>112</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>119</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>32</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>106</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>119</b>	<b>0</b>	<b>0</b>	<b>495</b>	<b>39</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>540</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>148</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (2) Hookhams Lane / Norse Road / Church Lane / Wentworth Drive

	Hookhams Lane	Norse Road	Church Lane	Wentworth Drive
TIME	Lane 1	Lane 1	Lane 1	Lane 1
0700	0	2	0	1
0705	0	2	3	1
0710	2	1	2	2
0715	1	0	0	2
0720	1	3	2	4
0725	2	1	1	7
0730	2	0	2	2
0735	4	1	2	3
0740	2	3	2	2
0745	3	3	3	4
0750	3	4	2	5
0755	2	5	2	3
0800	5	5	2	3
0805	4	4	3	2
0810	7	6	3	6
0815	5	5	4	5
0820	3	3	2	5
0825	3	4	3	7
0830	3	6	3	6
0835	2	6	2	3
0840	3	5	4	5
0845	5	4	2	6
0850	6	5	1	3
0855	4	6	7	6
0900	6	5	3	4
0905	3	4	3	3
0910	3	7	2	2
0915	2	1	2	4
0920	2	2	2	2
0925	2	5	2	2

	Hookhams Lane	Norse Road	Church Lane	Wentworth Drive
TIME	Lane 1	Lane 1	Lane 1	Lane 1
1630	3	5	2	3
1635	3	3	2	4
1640	3	2	2	2
1645	1	3	4	4
1650	2	3	3	2
1655	2	5	2	2
1700	1	6	3	3
1705	1	4	3	4
1710	2	3	2	7
1715	4	5	3	3
1720	5	5	5	3
1725	1	5	1	2
1730	0	6	3	3
1735	2	3	2	4
1740	3	5	3	4
1745	2	5	1	4
1750	1	4	2	2
1755	2	7	1	2
1800	2	5	4	1
1805	2	1	1	5
1810	2	6	2	5
1815	2	4	3	3
1820	1	3	2	2
1825	1	4	2	2

# Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

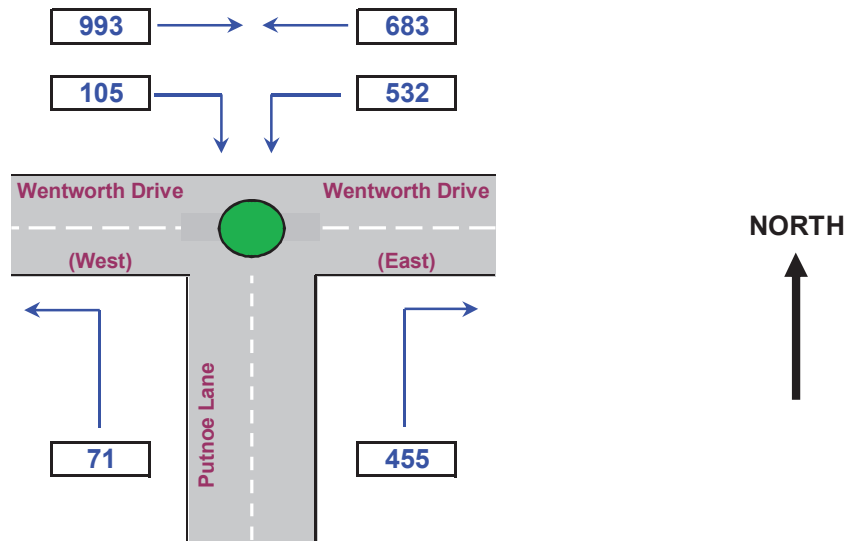
Junction: (3) Wentworth Drive / Putnoe Lane

Vehicle Class:

Start Time:

End Time:

Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

Important This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (3) Wentworth Drive / Putnoe Lane

Approach: Wentworth Drive (East)

TIME	Left to Putnoe Lane								W/B to Wentworth Drive (West)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	1	0	14	0	0	0	0	15	0	1	24	3	2	0	1	31
0715 - 0730	0	0	21	2	0	0	0	23	0	0	34	4	5	0	0	43
0730 - 0745	0	0	41	1	0	0	0	42	0	0	46	7	2	0	1	56
0745 - 0800	1	0	48	4	0	0	0	53	0	0	58	9	1	0	0	68
<b>Hourly Total</b>	<b>2</b>	<b>0</b>	<b>124</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>133</b>	<b>0</b>	<b>1</b>	<b>162</b>	<b>23</b>	<b>10</b>	<b>0</b>	<b>2</b>	<b>198</b>
0800 - 0815	0	0	69	4	0	0	0	73	0	0	63	9	1	0	1	74
0815 - 0830	0	0	63	6	0	0	0	69	0	0	80	10	1	1	0	92
0830 - 0845	0	0	87	2	0	0	1	90	0	0	75	12	1	0	1	89
0845 - 0900	0	0	57	6	0	0	1	64	0	0	83	12	4	0	0	99
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>276</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>296</b>	<b>0</b>	<b>0</b>	<b>301</b>	<b>43</b>	<b>7</b>	<b>1</b>	<b>2</b>	<b>354</b>
0900 - 0915	0	1	58	1	0	0	0	60	0	0	58	6	6	0	1	71
0915 - 0930	0	0	41	2	0	0	0	43	0	1	46	10	3	0	0	60
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>99</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>103</b>	<b>0</b>	<b>1</b>	<b>104</b>	<b>16</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>131</b>

<b>Session Total</b>	<b>2</b>	<b>1</b>	<b>499</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>532</b>	<b>0</b>	<b>2</b>	<b>567</b>	<b>82</b>	<b>26</b>	<b>1</b>	<b>5</b>	<b>683</b>
----------------------	----------	----------	------------	-----------	----------	----------	----------	------------	----------	----------	------------	-----------	-----------	----------	----------	------------

1630 - 1645	0	0	41	2	1	0	1	45	0	0	91	13	1	1	1	107
1645 - 1700	0	0	45	4	0	0	0	49	1	1	87	11	1	0	0	101
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>86</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>94</b>	<b>1</b>	<b>1</b>	<b>178</b>	<b>24</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>208</b>
1700 - 1715	0	0	45	5	2	0	0	52	0	0	116	9	0	0	1	126
1715 - 1730	0	0	36	5	0	0	0	41	2	0	131	13	4	0	0	150
1730 - 1745	1	0	43	1	0	0	0	45	0	0	103	9	0	1	1	114
1745 - 1800	0	0	52	0	0	0	0	52	1	1	85	7	1	1	0	96
<b>Hourly Total</b>	<b>1</b>	<b>0</b>	<b>176</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>190</b>	<b>3</b>	<b>1</b>	<b>435</b>	<b>38</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>486</b>
1800 - 1815	0	0	43	2	0	0	0	45	0	0	113	9	0	0	1	123
1815 - 1830	0	0	42	1	0	0	0	43	0	0	103	8	0	0	1	112
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>85</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>216</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>235</b>

<b>Session Total</b>	<b>1</b>	<b>0</b>	<b>347</b>	<b>20</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>372</b>	<b>4</b>	<b>2</b>	<b>829</b>	<b>79</b>	<b>7</b>	<b>3</b>	<b>5</b>	<b>929</b>
----------------------	----------	----------	------------	-----------	----------	----------	----------	------------	----------	----------	------------	-----------	----------	----------	----------	------------



# Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (3) Wentworth Drive / Putnoe Lane

Approach: Putnoe Lane

TIME	Left to Wentworth Drive (West)								Right to Wentworth Drive (East)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	1	0	16	2	0	0	0	19
0715 - 0730	0	0	3	0	0	0	0	3	0	0	26	0	0	0	0	26
0730 - 0745	0	0	5	0	0	0	0	5	0	0	41	2	0	0	0	43
0745 - 0800	0	0	5	0	0	0	0	5	0	0	41	2	0	0	0	43
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>124</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>131</b>
0800 - 0815	0	0	10	2	0	0	0	12	0	0	45	1	0	0	0	46
0815 - 0830	0	0	7	0	0	0	0	7	0	0	61	5	1	1	0	68
0830 - 0845	0	0	10	3	0	0	0	13	0	0	59	3	0	0	1	63
0845 - 0900	0	0	10	0	0	0	0	10	0	0	49	2	0	0	0	51
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>0</b>	<b>0</b>	<b>214</b>	<b>11</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>228</b>
0900 - 0915	0	0	7	0	0	0	0	7	0	0	50	5	2	0	0	57
0915 - 0930	0	0	7	1	1	0	0	9	0	0	37	1	1	0	0	39
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>96</b>

<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>1</b>	<b>0</b>	<b>425</b>	<b>23</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>455</b>
----------------------	----------	----------	-----------	----------	----------	----------	----------	-----------	----------	----------	------------	-----------	----------	----------	----------	------------

1630 - 1645	0	0	6	2	0	0	0	8	0	0	41	0	2	0	0	43
1645 - 1700	0	0	5	1	0	0	0	6	0	0	31	2	0	0	0	33
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>72</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>76</b>
1700 - 1715	0	0	9	4	0	0	0	13	0	0	37	1	0	0	0	38
1715 - 1730	0	0	5	0	0	0	0	5	0	0	47	3	0	0	0	50
1730 - 1745	0	0	10	2	0	0	0	12	0	0	34	6	0	0	0	40
1745 - 1800	0	0	9	0	0	0	0	9	0	0	37	3	0	0	0	40
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>155</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>168</b>
1800 - 1815	0	0	4	0	0	0	0	4	0	0	44	2	0	0	0	46
1815 - 1830	0	0	13	0	0	0	0	13	0	0	34	2	1	0	0	37
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>78</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>83</b>

<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>305</b>	<b>19</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>327</b>
----------------------	----------	----------	-----------	----------	----------	----------	----------	-----------	----------	----------	------------	-----------	----------	----------	----------	------------

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (3) Wentworth Drive / Putnoe Lane

Approach: Wentworth Drive (West)

TIME	E/B to Wentworth Drive (East)								Right to Putnoe Lane							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	60	9	0	0	0	69	0	0	1	0	0	0	0	1
0715 - 0730	0	1	61	15	3	2	2	84	0	0	4	0	0	0	0	4
0730 - 0745	1	0	89	10	0	0	1	101	0	0	3	0	0	0	1	4
0745 - 0800	0	0	103	6	1	0	1	111	0	0	12	1	0	0	0	13
<b>Hourly Total</b>	<b>1</b>	<b>1</b>	<b>313</b>	<b>40</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>365</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>22</b>
0800 - 0815	0	1	97	7	0	0	0	105	0	0	7	3	0	0	0	10
0815 - 0830	1	0	119	10	3	2	2	137	0	0	19	0	0	0	0	19
0830 - 0845	0	0	101	13	3	2	0	119	0	0	15	2	0	0	0	17
0845 - 0900	0	0	108	5	1	1	2	117	0	0	16	1	0	0	0	17
<b>Hourly Total</b>	<b>1</b>	<b>1</b>	<b>425</b>	<b>35</b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>478</b>	<b>0</b>	<b>0</b>	<b>57</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>63</b>
0900 - 0915	0	0	80	5	0	1	2	88	0	0	11	1	0	0	0	12
0915 - 0930	0	0	53	6	1	1	1	62	0	0	7	1	0	0	0	8
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>133</b>	<b>11</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>150</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>

<b>Session Total</b>	<b>2</b>	<b>2</b>	<b>871</b>	<b>86</b>	<b>12</b>	<b>9</b>	<b>11</b>	<b>993</b>	<b>0</b>	<b>0</b>	<b>95</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>105</b>
----------------------	----------	----------	------------	-----------	-----------	----------	-----------	------------	----------	----------	-----------	----------	----------	----------	----------	------------

1630 - 1645	0	0	76	7	4	0	0	87	0	0	8	1	1	0	0	10
1645 - 1700	0	0	38	6	1	0	1	46	0	0	7	0	0	0	0	7
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>114</b>	<b>13</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>133</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>17</b>
1700 - 1715	0	0	58	7	0	0	0	65	0	0	2	0	0	0	0	2
1715 - 1730	0	0	69	4	1	0	1	75	0	0	5	1	0	0	0	6
1730 - 1745	0	0	60	4	0	0	0	64	0	0	10	1	0	0	0	11
1745 - 1800	0	0	49	6	0	0	1	56	0	0	10	2	0	0	0	12
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>236</b>	<b>21</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>260</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>
1800 - 1815	0	0	47	2	0	0	0	49	0	0	9	0	0	0	0	9
1815 - 1830	0	0	46	0	0	0	1	47	0	0	16	1	0	0	0	17
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>93</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>

<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>443</b>	<b>36</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>489</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>74</b>
----------------------	----------	----------	------------	-----------	----------	----------	----------	------------	----------	----------	-----------	----------	----------	----------	----------	-----------

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (3) Wentworth Drive / Putnoe Lane

TIME	Wentworth Drive (East)	Putnoe Lane	Wentworth Drive (West)
	Lane 1	Lane 1	Lane 1
0700	0	1	0
0705	0	0	0
0710	0	0	1
0715	0	1	0
0720	0	1	1
0725	0	1	1
0730	0	1	3
0735	0	1	2
0740	0	2	5
0745	0	1	3
0750	0	1	2
0755	1	1	2
0800	0	2	3
0805	0	6	2
0810	0	1	2
0815	1	2	4
0820	0	3	5
0825	2	2	4
0830	1	1	3
0835	1	1	3
0840	1	2	3
0845	2	2	2
0850	1	2	3
0855	1	1	1
0900	1	2	3
0905	5	2	4
0910	1	3	4
0915	1	1	3
0920	0	2	1
0925	1	2	2

TIME	Wentworth Drive (East)	Putnoe Lane	Wentworth Drive (West)
	Lane 1	Lane 1	Lane 1
1630	0	1	1
1635	1	3	2
1640	2	1	2
1645	1	1	2
1650	2	1	0
1655	0	1	2
1700	1	2	1
1705	0	2	1
1710	1	5	4
1715	2	3	1
1720	0	3	0
1725	0	5	2
1730	0	3	2
1735	0	2	0
1740	0	4	3
1745	0	2	2
1750	0	2	2
1755	0	2	0
1800	0	3	2
1805	0	0	0
1810	3	1	2
1815	4	1	0
1820	1	3	0
1825	2	3	0

# ***Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017***

**Produced by Road Data Services Ltd**

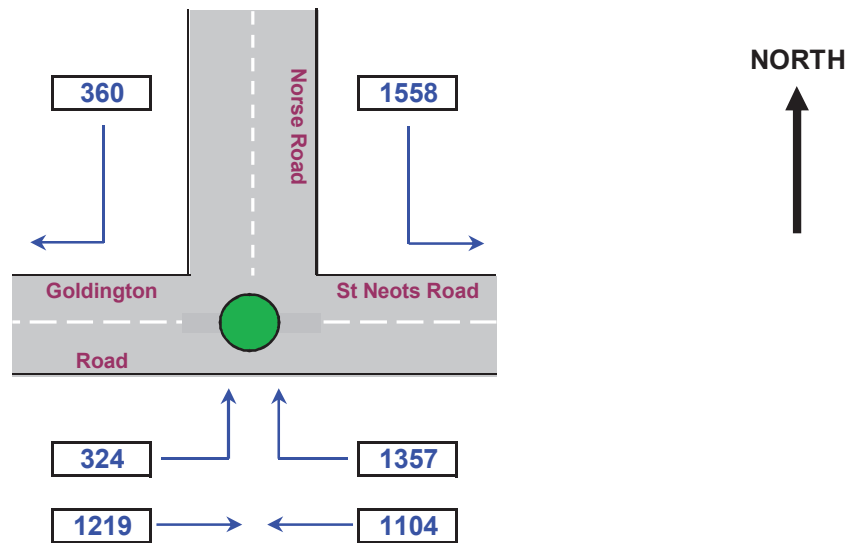
**Junction: (4) Norse Road / St Neots Road / Goldington Road**

Vehicle Class:

Start Time:

End Time:

Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

**Important** This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (4) Norse Road / St Neots Road / Goldington Road

Approach: Norse Road

TIME	Left to St Neots Road								Right to Goldington Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	103	22	3	3	0	131	0	0	26	1	1	0	1	29
0715 - 0730	0	0	127	26	1	3	0	157	0	1	23	8	1	0	1	34
0730 - 0745	0	1	140	28	3	1	0	173	0	0	34	3	1	1	1	40
0745 - 0800	0	1	156	17	5	1	0	180	0	0	30	2	1	0	2	35
<b>Hourly Total</b>	<b>0</b>	<b>2</b>	<b>526</b>	<b>93</b>	<b>12</b>	<b>8</b>	<b>0</b>	<b>641</b>	<b>0</b>	<b>1</b>	<b>113</b>	<b>14</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>138</b>
0800 - 0815	0	1	165	16	4	2	0	188	0	0	24	13	2	0	1	40
0815 - 0830	0	0	178	18	5	3	0	204	0	0	23	6	1	0	2	32
0830 - 0845	0	0	167	19	10	2	0	198	0	0	36	4	0	0	1	41
0845 - 0900	0	0	103	16	2	1	2	124	0	0	25	3	0	0	0	28
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>613</b>	<b>69</b>	<b>21</b>	<b>8</b>	<b>2</b>	<b>714</b>	<b>0</b>	<b>0</b>	<b>108</b>	<b>26</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>141</b>
0900 - 0915	0	0	86	12	3	4	4	109	0	0	33	4	1	0	2	40
0915 - 0930	0	1	74	9	6	4	0	94	0	0	33	6	1	0	1	41
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>160</b>	<b>21</b>	<b>9</b>	<b>8</b>	<b>4</b>	<b>203</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>81</b>

<b>Session Total</b>	<b>0</b>	<b>4</b>	<b>1299</b>	<b>183</b>	<b>42</b>	<b>24</b>	<b>6</b>	<b>1558</b>	<b>0</b>	<b>1</b>	<b>287</b>	<b>50</b>	<b>9</b>	<b>1</b>	<b>12</b>	<b>360</b>
----------------------	----------	----------	-------------	------------	-----------	-----------	----------	-------------	----------	----------	------------	-----------	----------	----------	-----------	------------

1630 - 1645	0	0	80	17	14	0	0	111	0	1	26	3	2	0	0	32
1645 - 1700	0	0	91	13	0	3	0	107	0	0	36	3	0	0	2	41
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>171</b>	<b>30</b>	<b>14</b>	<b>3</b>	<b>0</b>	<b>218</b>	<b>0</b>	<b>1</b>	<b>62</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>73</b>
1700 - 1715	0	2	95	11	1	1	0	110	0	0	33	7	0	1	1	42
1715 - 1730	0	0	113	10	1	0	0	124	0	0	27	2	0	0	0	29
1730 - 1745	0	0	121	10	1	1	0	133	0	2	33	3	0	0	3	41
1745 - 1800	0	0	90	10	0	0	0	100	0	0	42	2	0	0	1	45
<b>Hourly Total</b>	<b>0</b>	<b>2</b>	<b>419</b>	<b>41</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>467</b>	<b>0</b>	<b>2</b>	<b>135</b>	<b>14</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>157</b>
1800 - 1815	0	0	94	8	0	0	0	102	0	0	35	8	0	1	1	45
1815 - 1830	0	0	75	6	0	1	0	82	0	1	47	2	0	0	1	51
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>169</b>	<b>14</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>184</b>	<b>0</b>	<b>1</b>	<b>82</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>96</b>

<b>Session Total</b>	<b>0</b>	<b>2</b>	<b>759</b>	<b>85</b>	<b>17</b>	<b>6</b>	<b>0</b>	<b>869</b>	<b>0</b>	<b>4</b>	<b>279</b>	<b>30</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>326</b>
----------------------	----------	----------	------------	-----------	-----------	----------	----------	------------	----------	----------	------------	-----------	----------	----------	----------	------------

# Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (4) Norse Road / St Neots Road / Goldington Road

Approach: St Neots Road

TIME	W/B to Goldington Road								Right to Norse Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	28	10	3	3	0	44	0	1	61	16	6	3	0	87
0715 - 0730	0	1	53	12	4	2	2	74	0	1	65	14	5	1	1	87
0730 - 0745	0	0	85	11	1	1	0	98	0	0	103	13	1	4	0	121
0745 - 0800	0	0	139	11	8	1	3	162	0	1	138	12	1	0	1	153
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>305</b>	<b>44</b>	<b>16</b>	<b>7</b>	<b>5</b>	<b>378</b>	<b>0</b>	<b>3</b>	<b>367</b>	<b>55</b>	<b>13</b>	<b>8</b>	<b>2</b>	<b>448</b>
0800 - 0815	0	0	98	18	2	0	0	118	0	0	141	18	5	6	0	170
0815 - 0830	0	0	121	12	1	0	0	134	0	0	178	7	4	1	0	190
0830 - 0845	0	1	137	12	2	2	0	154	0	0	124	26	2	0	1	153
0845 - 0900	0	0	98	19	3	2	1	123	0	0	139	13	6	1	0	159
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>454</b>	<b>61</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>529</b>	<b>0</b>	<b>0</b>	<b>582</b>	<b>64</b>	<b>17</b>	<b>8</b>	<b>1</b>	<b>672</b>
0900 - 0915	0	0	82	11	7	0	1	101	0	1	92	14	8	0	0	115
0915 - 0930	0	2	69	15	5	4	1	96	0	0	90	21	9	1	1	122
<b>Hourly Total</b>	<b>0</b>	<b>2</b>	<b>151</b>	<b>26</b>	<b>12</b>	<b>4</b>	<b>2</b>	<b>197</b>	<b>0</b>	<b>1</b>	<b>182</b>	<b>35</b>	<b>17</b>	<b>1</b>	<b>1</b>	<b>237</b>

<b>Session Total</b>	<b>0</b>	<b>4</b>	<b>910</b>	<b>131</b>	<b>36</b>	<b>15</b>	<b>8</b>	<b>1104</b>	<b>0</b>	<b>4</b>	<b>1131</b>	<b>154</b>	<b>47</b>	<b>17</b>	<b>4</b>	<b>1357</b>
----------------------	----------	----------	------------	------------	-----------	-----------	----------	-------------	----------	----------	-------------	------------	-----------	-----------	----------	-------------

1630 - 1645	0	1	116	9	1	0	1	128	0	0	127	37	8	1	0	173
1645 - 1700	0	0	164	11	0	2	1	178	0	2	145	21	0	3	0	171
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>280</b>	<b>20</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>306</b>	<b>0</b>	<b>2</b>	<b>272</b>	<b>58</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>344</b>
1700 - 1715	0	0	129	10	1	0	0	140	0	1	178	19	6	2	0	206
1715 - 1730	0	1	150	11	0	0	1	163	0	1	177	18	4	1	0	201
1730 - 1745	0	1	132	19	1	0	0	153	0	1	162	14	1	0	0	178
1745 - 1800	0	0	123	14	0	0	1	138	0	2	159	10	3	3	1	178
<b>Hourly Total</b>	<b>0</b>	<b>2</b>	<b>534</b>	<b>54</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>594</b>	<b>0</b>	<b>5</b>	<b>676</b>	<b>61</b>	<b>14</b>	<b>6</b>	<b>1</b>	<b>763</b>
1800 - 1815	0	0	124	2	2	0	0	128	0	0	166	14	0	1	0	181
1815 - 1830	0	1	121	18	0	5	1	146	0	0	108	1	1	0	0	110
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>245</b>	<b>20</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>274</b>	<b>0</b>	<b>0</b>	<b>274</b>	<b>15</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>291</b>

<b>Session Total</b>	<b>0</b>	<b>4</b>	<b>1059</b>	<b>94</b>	<b>5</b>	<b>7</b>	<b>5</b>	<b>1174</b>	<b>0</b>	<b>7</b>	<b>1222</b>	<b>134</b>	<b>23</b>	<b>11</b>	<b>1</b>	<b>1398</b>
----------------------	----------	----------	-------------	-----------	----------	----------	----------	-------------	----------	----------	-------------	------------	-----------	-----------	----------	-------------

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (4) Norse Road / St Neots Road / Goldington Road

Approach: Goldington Road

TIME	Left to Norse Road								E/B to St Neots Road								U-Turn							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	10	4	0	0	0	14	0	0	77	14	0	0	0	91	0	0	1	1	0	0	0	2
0715 - 0730	0	0	14	4	0	0	0	18	0	0	88	6	5	3	1	103	0	0	0	0	0	0	0	0
0730 - 0745	0	0	14	2	3	0	0	19	0	1	121	16	3	1	0	142	0	0	0	0	0	0	0	0
0745 - 0800	0	0	31	3	1	0	0	35	0	0	97	22	4	0	1	124	0	0	1	0	2	0	0	3
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>69</b>	<b>13</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>86</b>	<b>0</b>	<b>1</b>	<b>383</b>	<b>58</b>	<b>12</b>	<b>4</b>	<b>2</b>	<b>460</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>5</b>
0800 - 0815	0	0	27	5	0	0	0	32	0	0	116	11	3	1	0	131	0	0	0	0	2	0	0	2
0815 - 0830	1	0	32	5	1	0	0	39	0	0	125	18	3	1	0	147	0	0	1	0	0	0	0	1
0830 - 0845	0	0	38	3	0	0	0	41	0	0	114	15	3	1	0	133	0	0	1	0	0	0	0	1
0845 - 0900	0	0	37	4	1	0	0	42	0	0	118	18	2	0	3	141	0	0	0	0	0	0	0	0
<b>Hourly Total</b>	<b>1</b>	<b>0</b>	<b>134</b>	<b>17</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>154</b>	<b>0</b>	<b>0</b>	<b>473</b>	<b>62</b>	<b>11</b>	<b>3</b>	<b>3</b>	<b>552</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>4</b>
0900 - 0915	0	0	36	5	2	0	0	43	0	0	87	12	9	1	1	110	0	1	2	0	0	0	0	3
0915 - 0930	0	0	33	7	1	0	0	41	0	0	71	11	13	2	0	97	0	0	1	0	0	0	0	1
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>69</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>84</b>	<b>0</b>	<b>0</b>	<b>158</b>	<b>23</b>	<b>22</b>	<b>3</b>	<b>1</b>	<b>207</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Session Total</b>	<b>1</b>	<b>0</b>	<b>272</b>	<b>42</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>324</b>	<b>0</b>	<b>1</b>	<b>1014</b>	<b>143</b>	<b>45</b>	<b>10</b>	<b>6</b>	<b>1219</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>13</b>
1630 - 1645	0	1	48	7	0	0	0	56	0	0	91	19	3	0	2	115	0	0	1	0	0	0	0	1
1645 - 1700	0	0	64	6	0	0	0	70	0	0	109	12	0	1	0	122	0	0	0	0	1	0	0	1
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>112</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>126</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>31</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>237</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>
1700 - 1715	0	0	77	3	0	0	0	80	0	2	119	18	1	4	1	145	0	0	1	0	0	0	0	1
1715 - 1730	0	0	64	3	0	0	1	68	1	1	101	10	0	0	0	113	0	0	2	0	0	0	0	2
1730 - 1745	2	0	70	2	0	0	0	74	0	0	111	12	2	0	2	127	0	0	0	0	0	0	0	0
1745 - 1800	0	1	62	6	0	0	0	69	0	0	89	14	0	0	1	104	0	0	2	0	0	0	0	2
<b>Hourly Total</b>	<b>2</b>	<b>1</b>	<b>273</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>291</b>	<b>1</b>	<b>3</b>	<b>420</b>	<b>54</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>489</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
1800 - 1815	0	0	58	3	0	0	0	61	0	0	95	8	0	0	1	104	0	0	1	0	0	0	0	1
1815 - 1830	0	0	52	2	0	0	0	54	0	0	84	1	3	0	0	88	0	0	0	0	0	0	0	0
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>110</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>115</b>	<b>0</b>	<b>0</b>	<b>179</b>	<b>9</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>192</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Session Total</b>	<b>2</b>	<b>2</b>	<b>495</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>532</b>	<b>1</b>	<b>3</b>	<b>799</b>	<b>94</b>	<b>9</b>	<b>5</b>	<b>7</b>	<b>918</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>8</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (4) Norse Road / St Neots Road / Goldington Road

Lane 1 is nearside lane

TIME	Norse Road		St Neots Road		Goldington Road	
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2
0700	4		2	3	1	0
0705	4		4	1	1	1
0710	4		1	3	1	1
0715	5		2	2	3	1
0720	6		1	2	1	1
0725	3		1	2	3	0
0730	5		1	3	1	1
0735	3		3	2	2	2
0740	5		1	2	1	0
0745	3		1	2	4	6
0750	4		1	3	3	1
0755	6		2	5	3	3
0800	7		1	2	3	2
0805	8		5	5	5	4
0810	8		2	2	3	2
0815	4		3	3	1	0
0820	6		1	3	4	2
0825	3		2	3	5	2
0830	3		3	4	5	1
0835	7		3	2	4	1
0840	4		3	7	3	2
0845	4		3	7	5	1
0850	2		5	3	4	3
0855	3		4	3	3	0
0900	3		2	4	3	1
0905	5		3	3	3	3
0910	6		2	2	1	0
0915	2		1	2	3	1
0920	2		5	2	2	3
0925	3		6	1	3	4

Lane 1 is nearside lane

TIME	Norse Road		St Neots Road		Goldington Road	
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2
1630	5		2	3	3	4
1635	4		2	4	3	2
1640	3		1	3	3	4
1645	4		2	1	4	2
1650	2		2	4	2	3
1655	2		2	2	4	3
1700	4		2	4	5	3
1705	4		2	4	6	7
1710	4		1	2	3	5
1715	2		3	4	4	1
1720	2		2	4	4	5
1725	2		1	2	5	4
1730	3		2	3	4	4
1735	2		2	2	3	3
1740	2		2	1	4	2
1745	3		1	2	2	3
1750	3		4	1	2	1
1755	2		2	1	3	1
1800	3		1	4	3	1
1805	2		2	2	3	0
1810	4		1	3	6	1
1815	3		1	3	2	2
1820	2		3	1	2	1
1825	4		2	1	1	1



# Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

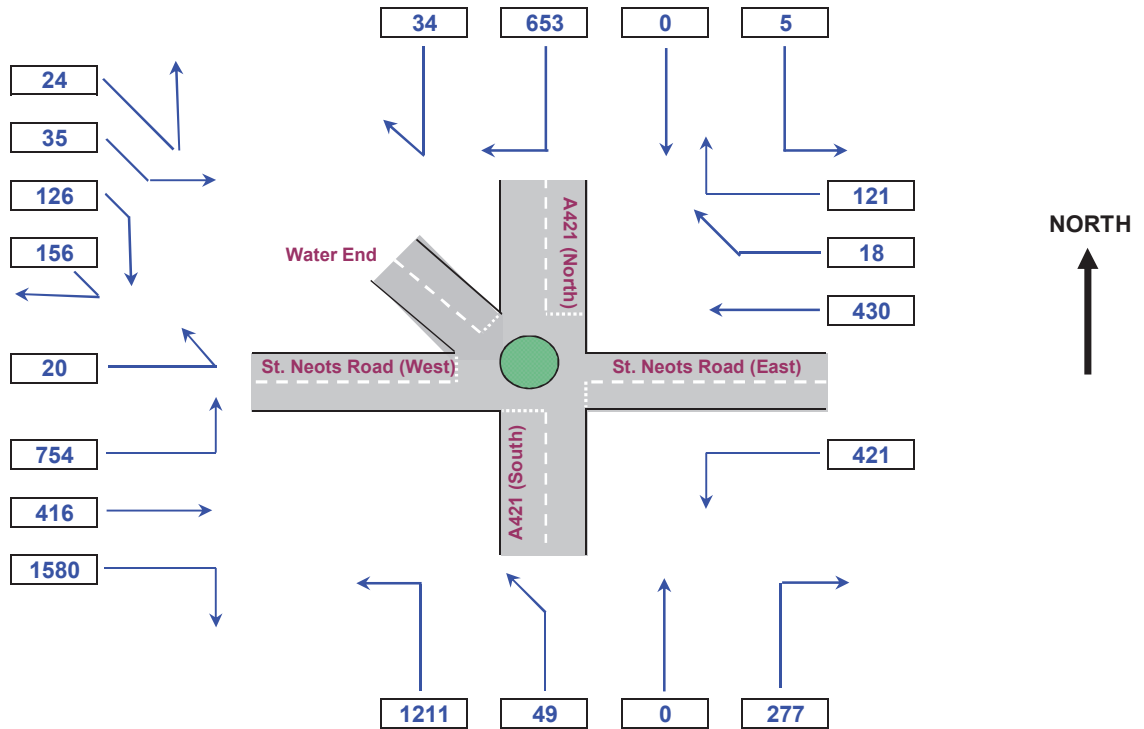
Junction: (5) A421 / St. Neots Road / Water End

Vehicle Class: ALL CLASSES

Start Time: 1) 0700

End Time: 1) 0930

Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

Important This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (5) A421 / St. Neots Road / Water End

Approach: A421 (North)

TIME	Left to St. Neots Road (East)								S/B to A421 (South)								Right to St. Neots Road (West)								Last Right to Water End								
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	
0700 - 0715	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	31	6	4	3	0	44	0	0	3	0	0	0	0	3	
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	12	5	2	0	57	0	0	2	0	0	0	0	2	
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	9	2	2	0	67	0	0	3	0	0	0	0	3	
0745 - 0800	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	64	12	7	1	1	86	0	0	2	2	0	0	0	4	
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>187</b>	<b>39</b>	<b>18</b>	<b>8</b>	<b>1</b>	<b>254</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	10	1	4	0	72	0	0	2	0	0	0	0	2	
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	6	1	0	0	71	0	0	3	0	0	0	0	3	
0830 - 0845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	12	3	2	0	73	0	0	3	2	0	0	0	5	
0845 - 0900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	9	3	2	0	69	0	0	5	0	0	0	0	5	
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>232</b>	<b>37</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>285</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	
0900 - 0915	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	36	7	3	0	0	46	0	0	2	1	0	0	0	3	
0915 - 0930	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	48	13	5	2	0	68	0	0	3	0	0	1	0	4	
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>84</b>	<b>20</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>114</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>7</b>	
<b>Session Total</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>503</b>	<b>96</b>	<b>34</b>	<b>18</b>	<b>1</b>	<b>653</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>34</b>
1630 - 1645	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	51	12	4	0	0	67	0	0	5	2	0	0	0	7	
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	79	8	1	1	0	90	0	0	7	2	0	0	0	9
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>130</b>	<b>20</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>157</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	6	0	0	0	82	0	0	6	2	0	0	0	8	
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77	8	1	0	0	86	0	0	5	2	0	0	0	7	
1730 - 1745	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	77	6	3	0	0	87	0	0	5	1	0	0	0	6
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	79	4	0	1	0	85	0	0	7	0	0	0	0	7
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>309</b>	<b>24</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>340</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>
1800 - 1815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	1	0	2	0	102	0	0	7	0	0	0	0	7	
1815 - 1830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	4	1	3	0	71	0	0	5	0	0	0	0	5	
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>162</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>173</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>601</b>	<b>49</b>	<b>10</b>	<b>7</b>	<b>0</b>	<b>670</b>	<b>0</b>	<b>0</b>	<b>47</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>56</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (5) A421 / St. Neots Road / Water End

Approach: St Neots Road (East)

TIME	Left to A421 (South)							W/B to St. Neots Road (West)							Right to Water End							Last Right to A421 (North)										
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	20	5	1	0	0	26	0	0	10	2	0	1	0	13	0	0	1	0	0	0	0	1	0	0	8	3	0	0	0	11
0715 - 0730	0	1	40	1	2	1	0	45	0	1	21	3	0	0	3	28	0	0	1	0	0	0	0	1	0	0	7	1	0	0	0	8
0730 - 0745	0	0	45	3	0	0	0	48	0	0	33	4	1	0	0	38	0	0	1	0	0	0	0	1	0	0	12	2	0	0	0	14
0745 - 0800	0	0	57	6	1	0	0	64	0	0	60	4	3	0	2	69	0	0	2	0	0	0	1	3	0	0	13	2	0	0	0	15
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>162</b>	<b>15</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>183</b>	<b>0</b>	<b>1</b>	<b>124</b>	<b>13</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>148</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48</b>
0800 - 0815	0	0	44	6	3	1	0	54	0	0	43	3	1	0	0	47	0	0	1	0	0	0	0	1	0	0	13	0	1	0	0	14
0815 - 0830	0	0	46	5	0	0	0	51	0	0	54	4	1	0	1	60	0	0	2	0	0	0	0	2	0	0	14	0	0	0	0	14
0830 - 0845	0	0	22	3	1	0	1	27	0	0	47	5	0	0	0	52	0	0	2	0	0	0	0	2	0	0	12	1	0	0	0	13
0845 - 0900	0	0	43	4	2	0	3	52	0	0	42	4	2	0	0	48	0	0	4	0	0	0	0	4	0	0	12	1	0	0	0	13
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>155</b>	<b>18</b>	<b>6</b>	<b>1</b>	<b>4</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>186</b>	<b>16</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>207</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>51</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>54</b>
0900 - 0915	0	0	27	4	0	0	0	31	0	1	38	2	1	0	0	42	0	0	2	0	0	0	0	2	0	0	11	0	0	0	0	11
0915 - 0930	0	0	16	2	4	1	0	23	0	0	26	5	1	0	1	33	0	0	1	0	0	0	0	1	0	0	7	1	0	0	0	8
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>6</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>54</b>	<b>0</b>	<b>1</b>	<b>64</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>75</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>
<b>Session Total</b>	<b>0</b>	<b>1</b>	<b>360</b>	<b>39</b>	<b>14</b>	<b>3</b>	<b>4</b>	<b>421</b>	<b>0</b>	<b>2</b>	<b>374</b>	<b>36</b>	<b>10</b>	<b>1</b>	<b>7</b>	<b>430</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>109</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>121</b>
1630 - 1645	0	1	19	2	1	0	0	23	0	1	28	5	0	0	1	35	0	0	3	1	0	0	0	4	0	0	7	1	0	0	0	8
1645 - 1700	0	0	25	6	1	0	0	32	0	0	57	2	0	0	0	59	0	0	5	1	0	0	0	6	0	0	8	1	0	0	0	9
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>44</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>0</b>	<b>1</b>	<b>85</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>94</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>
1700 - 1715	0	0	30	4	1	0	1	36	0	0	39	8	3	0	0	50	0	0	4	2	0	0	0	6	0	0	6	1	0	0	0	7
1715 - 1730	0	0	27	6	0	0	0	33	0	0	35	7	0	0	1	43	0	0	3	1	0	0	0	4	0	0	5	0	0	0	0	5
1730 - 1745	0	0	19	2	0	0	0	21	0	0	43	6	0	0	0	49	0	0	4	1	0	0	0	5	0	0	6	1	0	0	0	7
1745 - 1800	0	0	21	3	0	0	0	24	0	0	37	4	0	0	1	42	0	0	4	0	0	0	0	4	0	0	8	1	0	0	0	9
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>97</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>114</b>	<b>0</b>	<b>0</b>	<b>154</b>	<b>25</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>
1800 - 1815	0	1	13	2	0	0	0	16	0	0	36	2	0	0	0	38	0	0	3	2	0	0	0	5	0	0	5	1	0	0	0	6
1815 - 1830	0	0	14	0	0	0	0	14	0	0	24	7	0	0	1	32	0	0	2	0	0	0	0	2	0	0	5	1	0	0	0	6
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>27</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>
<b>Session Total</b>	<b>0</b>	<b>2</b>	<b>168</b>	<b>25</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>199</b>	<b>0</b>	<b>1</b>	<b>299</b>	<b>41</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>348</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>57</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (S) A421 / St. Neots Road / Water End

Approach: A421 (South)

TIME	First Left to St. Neots Road (West)								Second Left to Water End					N/B to A421 (North)					Right to St. Neots Road (East)													
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	38	6	4	1	0	49	1	0	4	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	14	4	1	0	0	20
0715 - 0730	0	1	51	10	1	0	0	63	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	18	3	2	0	1	24
0730 - 0745	0	1	80	8	0	4	0	93	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	24	4	2	0	2	32
0745 - 0800	0	0	140	11	0	0	1	152	0	0	4	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	30	3	1	0	1	35
<b>Hourly Total</b>	<b>0</b>	<b>2</b>	<b>309</b>	<b>35</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>357</b>	<b>1</b>	<b>0</b>	<b>16</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>86</b>	<b>14</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>111</b>
0800 - 0815	0	0	109	21	5	2	0	137	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	29	7	1	0	0	38
0815 - 0830	0	0	176	13	2	1	0	192	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	25	4	0	0	0	29
0830 - 0845	0	1	139	21	3	0	0	164	0	0	4	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	34	2	0	0	0	36
0845 - 0900	0	0	121	17	4	1	1	144	0	0	6	0	1	0	0	7	0	0	0	0	0	0	0	0	0	0	14	4	4	0	1	23
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>545</b>	<b>72</b>	<b>14</b>	<b>4</b>	<b>1</b>	<b>637</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>102</b>	<b>17</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>126</b>
0900 - 0915	0	0	84	14	10	0	1	109	0	0	3	1	2	0	0	6	0	0	0	0	0	0	0	0	0	0	15	4	2	0	0	21
0915 - 0930	0	2	77	17	8	3	1	108	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	15	4	0	0	0	19
<b>Hourly Total</b>	<b>0</b>	<b>2</b>	<b>161</b>	<b>31</b>	<b>18</b>	<b>3</b>	<b>2</b>	<b>217</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>40</b>
<b>Session Total</b>	<b>0</b>	<b>5</b>	<b>1015</b>	<b>138</b>	<b>37</b>	<b>12</b>	<b>4</b>	<b>1211</b>	<b>1</b>	<b>0</b>	<b>40</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>218</b>	<b>39</b>	<b>13</b>	<b>0</b>	<b>5</b>	<b>277</b>	
1630 - 1645	0	0	161	29	4	2	0	196	0	0	13	5	0	0	0	18	0	0	0	0	0	0	0	0	0	0	65	20	1	0	0	86
1645 - 1700	0	2	159	21	2	3	1	188	0	0	19	3	1	0	0	23	0	0	0	0	0	0	0	0	0	0	69	12	3	0	0	84
<b>Hourly Total</b>	<b>0</b>	<b>2</b>	<b>320</b>	<b>50</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>384</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>134</b>	<b>32</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>170</b>
1700 - 1715	0	0	188	13	2	2	0	205	0	0	28	6	0	0	0	34	0	0	0	0	0	0	0	0	0	0	85	15	4	0	0	104
1715 - 1730	0	2	204	19	1	1	0	227	0	0	27	4	0	0	0	31	0	0	0	0	0	0	0	0	0	0	95	8	4	0	0	107
1730 - 1745	0	1	174	21	1	0	0	197	0	1	36	2	0	2	0	41	0	0	0	0	0	0	0	0	0	0	75	12	0	2	0	89
1745 - 1800	0	1	151	15	2	2	1	172	0	0	35	2	0	0	0	37	0	0	0	0	0	0	0	0	0	0	78	10	0	0	0	88
<b>Hourly Total</b>	<b>0</b>	<b>4</b>	<b>717</b>	<b>68</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>801</b>	<b>0</b>	<b>1</b>	<b>126</b>	<b>14</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>143</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>333</b>	<b>45</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>388</b>
1800 - 1815	0	0	151	8	1	1	0	161	0	0	20	2	1	0	0	23	0	0	0	0	0	0	0	0	0	0	53	4	0	0	0	57
1815 - 1830	0	1	134	8	2	0	0	145	0	0	8	1	0	0	0	9	0	0	0	0	0	0	0	0	0	0	43	4	1	0	0	48
<b>Hourly Total</b>	<b>0</b>	<b>1</b>	<b>285</b>	<b>16</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>306</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>96</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>105</b>
<b>Session Total</b>	<b>0</b>	<b>7</b>	<b>1322</b>	<b>134</b>	<b>15</b>	<b>11</b>	<b>2</b>	<b>1491</b>	<b>0</b>	<b>1</b>	<b>186</b>	<b>25</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>216</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>563</b>	<b>85</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>663</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (5) A421 / St. Neots Road / Water End

Approach: St Neots Road (West)

TIME	First Left to Water End							Second Left to A421 (North)							E/B to St. Neots Road (East)							Right to A421 (South)										
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	1	0	0	0	0	1	0	0	63	18	2	2	0	85	0	0	25	6	0	0	0	31	0	0	98	14	2	0	0	114
0715 - 0730	0	0	1	1	0	0	0	2	0	0	93	12	0	7	0	112	0	0	20	4	1	0	1	26	0	0	97	14	3	0	0	114
0730 - 0745	0	0	0	0	0	0	0	0	0	1	79	11	0	1	0	92	0	0	38	7	1	0	0	46	0	1	141	26	4	1	0	173
0745 - 0800	0	0	0	0	0	0	0	0	0	1	50	11	2	0	0	64	0	0	17	10	3	0	1	31	0	0	181	18	4	1	0	204
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>285</b>	<b>52</b>	<b>4</b>	<b>10</b>	<b>0</b>	<b>353</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>27</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>134</b>	<b>0</b>	<b>1</b>	<b>517</b>	<b>72</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>605</b>
0800 - 0815	0	0	2	0	0	0	0	2	0	0	64	4	2	0	0	70	0	0	35	9	2	0	0	46	0	0	187	12	8	3	0	210
0815 - 0830	0	0	2	0	0	0	0	2	0	0	58	1	0	1	0	60	0	0	42	12	0	0	0	54	0	0	195	18	4	2	0	219
0830 - 0845	0	0	4	1	0	0	0	5	0	0	72	11	7	2	0	92	0	0	58	7	2	0	1	68	0	0	149	20	4	2	0	175
0845 - 0900	0	0	3	0	0	0	1	4	0	0	49	6	3	0	0	58	0	0	33	5	1	0	2	41	0	0	139	23	1	2	1	166
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>243</b>	<b>22</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>280</b>	<b>0</b>	<b>0</b>	<b>168</b>	<b>33</b>	<b>5</b>	<b>0</b>	<b>3</b>	<b>209</b>	<b>0</b>	<b>0</b>	<b>670</b>	<b>73</b>	<b>17</b>	<b>9</b>	<b>1</b>	<b>770</b>
0900 - 0915	0	0	2	0	0	0	0	2	0	0	42	7	4	2	0	55	0	0	27	4	3	0	3	37	0	0	95	13	4	3	1	116
0915 - 0930	0	0	2	0	0	0	0	2	0	0	45	9	10	2	0	66	0	0	28	3	4	1	0	36	0	1	73	8	4	2	1	89
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>16</b>	<b>14</b>	<b>4</b>	<b>0</b>	<b>121</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>73</b>	<b>0</b>	<b>1</b>	<b>168</b>	<b>21</b>	<b>8</b>	<b>5</b>	<b>2</b>	<b>205</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>20</b>	<b>0</b>	<b>2</b>	<b>615</b>	<b>90</b>	<b>30</b>	<b>17</b>	<b>0</b>	<b>754</b>	<b>0</b>	<b>0</b>	<b>323</b>	<b>67</b>	<b>17</b>	<b>1</b>	<b>8</b>	<b>416</b>	<b>0</b>	<b>2</b>	<b>1355</b>	<b>166</b>	<b>38</b>	<b>16</b>	<b>3</b>	<b>1580</b>
1630 - 1645	0	0	4	0	0	0	0	4	0	0	43	5	3	0	0	51	0	0	63	9	3	0	2	77	0	0	64	20	7	0	0	91
1645 - 1700	0	0	2	0	0	0	0	2	0	0	31	9	0	1	0	41	0	0	55	4	2	0	0	61	0	0	111	11	2	2	0	126
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>14</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>118</b>	<b>13</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>138</b>	<b>0</b>	<b>0</b>	<b>175</b>	<b>31</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>217</b>
1700 - 1715	0	0	1	0	0	0	0	1	0	0	48	4	0	2	0	54	0	2	53	13	0	0	0	68	0	0	116	12	2	2	0	132
1715 - 1730	0	0	7	1	0	0	0	8	0	0	44	0	0	1	0	45	0	0	58	7	1	0	1	67	0	2	112	10	0	1	0	125
1730 - 1745	0	0	3	0	0	0	0	3	0	1	37	2	1	0	0	41	0	0	40	4	1	1	1	47	0	0	139	15	1	0	0	155
1745 - 1800	0	0	5	2	0	0	0	7	0	0	47	7	0	0	0	54	0	0	39	8	0	0	2	49	0	0	81	11	0	0	0	92
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>1</b>	<b>176</b>	<b>13</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>194</b>	<b>0</b>	<b>2</b>	<b>190</b>	<b>32</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>231</b>	<b>0</b>	<b>2</b>	<b>448</b>	<b>48</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>504</b>
1800 - 1815	0	0	6	0	0	0	0	6	0	0	32	1	0	0	0	33	0	0	44	6	0	0	1	51	0	0	105	8	0	0	0	113
1815 - 1830	0	0	2	0	0	0	0	2	0	0	48	2	2	1	0	53	0	0	47	2	1	0	0	50	0	0	64	3	0	0	0	67
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>86</b>	<b>0</b>	<b>0</b>	<b>91</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>169</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>180</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>0</b>	<b>1</b>	<b>330</b>	<b>30</b>	<b>6</b>	<b>5</b>	<b>0</b>	<b>372</b>	<b>0</b>	<b>2</b>	<b>399</b>	<b>53</b>	<b>8</b>	<b>1</b>	<b>7</b>	<b>470</b>	<b>0</b>	<b>2</b>	<b>792</b>	<b>90</b>	<b>12</b>	<b>5</b>	<b>0</b>	<b>901</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (5) A421 / St. Neots Road / Water End

Approach: Water End

TIME	First Left to A421 (North)							Second Left to St. Neots Road (East)							Right to A421 (South)							Last Right to St. Neots Road (West)											
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	
0700 - 0715	0	0	0	2	0	0	0	2	0	0	2	1	0	0	0	3	0	0	6	3	1	0	0	0	10	0	0	8	3	1	0	0	12
0715 - 0730	0	0	1	1	0	0	0	2	0	0	2	1	0	0	0	3	0	0	7	1	0	0	0	0	8	0	0	8	2	0	0	0	10
0730 - 0745	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	12	1	0	0	0	0	13	0	0	14	1	0	0	0	15
0745 - 0800	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	0	0	13	1	0	0	0	0	14	0	0	16	1	1	0	0	18
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>55</b>
0800 - 0815	0	0	7	0	0	0	0	7	0	0	4	0	0	0	0	4	0	0	17	1	1	0	0	0	19	0	0	20	2	0	0	0	22
0815 - 0830	0	0	2	0	0	0	0	2	0	0	4	0	0	0	0	4	0	0	17	2	1	0	0	0	20	0	0	20	1	0	0	0	21
0830 - 0845	0	0	3	0	0	0	0	3	0	0	4	0	0	0	1	5	0	0	9	0	0	0	0	0	9	0	0	14	1	0	0	0	15
0845 - 0900	0	0	1	0	0	0	0	1	0	0	3	1	0	0	0	4	0	0	13	2	0	0	0	0	15	0	0	15	2	0	0	0	17
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>56</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>69</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>75</b>
0900 - 0915	0	0	1	1	0	0	0	2	0	0	3	0	0	0	0	3	0	0	12	0	0	0	0	0	12	0	0	15	2	1	0	0	18
0915 - 0930	0	0	5	0	0	0	0	5	0	0	2	0	0	0	0	2	0	0	4	1	1	0	0	0	6	0	0	7	1	0	0	0	8
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>26</b>
<b>Session Total</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>110</b>	<b>12</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>126</b>	<b>0</b>	<b>0</b>	<b>137</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>156</b>
1630 - 1645	0	0	1	2	0	0	0	3	0	0	2	0	0	0	0	2	0	0	4	0	0	0	0	0	4	0	0	6	0	0	0	0	6
1645 - 1700	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	2	0	0	4	1	0	0	0	0	5	0	0	7	1	0	0	0	8
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>
1700 - 1715	1	0	0	1	0	0	0	2	0	0	3	0	0	0	0	3	0	0	5	0	0	0	0	0	5	0	0	8	0	0	0	0	8
1715 - 1730	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	2	0	0	4	1	0	0	0	0	5	0	0	6	1	0	0	0	7
1730 - 1745	0	0	2	1	0	0	0	3	0	0	3	0	0	0	0	3	0	0	6	0	0	0	0	0	6	0	0	10	0	0	0	0	10
1745 - 1800	0	0	2	0	0	0	1	3	0	0	4	0	0	0	0	4	0	0	6	0	0	0	0	0	6	0	0	14	0	0	0	0	14
<b>Hourly Total</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>39</b>
1800 - 1815	0	0	1	0	0	0	0	1	0	0	2	1	0	0	0	3	0	0	5	1	0	0	0	0	6	0	0	9	1	0	0	0	10
1815 - 1830	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	2	0	0	1	0	0	0	0	0	1	0	0	4	2	0	0	0	6
<b>Hourly Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>
<b>Session Total</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>69</b>

## Salph End, Bedford - Manual Traffic Survey, Tuesday 6th June 2017

Produced by Road Data Services Ltd

Junction: (S) A421 / St. Neots Road / Water End

Lane 1 is nearside lane

TIME	A421 (North)		St Neots Road (East)		A421 (South)			St Neots Road (West)		Water End
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 1
0700	0	2	3	0	2	0	0	2	3	1
0705	0	2	2	0	1	0	0	2	1	3
0710	0	3	3	0	0	0	0	1	1	4
0715	0	4	4	0	4	0	0	2	1	4
0720	0	3	5	2	3	0	2	3	4	4
0725	1	4	5	1	3	0	1	3	1	1
0730	0	3	6	1	4	1	1	1	4	2
0735	0	8	5	0	2	0	1	4	5	1
0740	0	9	10	2	2	1	1	1	3	3
0745	0	7	15	1	6	1	1	1	4	2
0750	0	6	9	2	6	1	0	1	4	2
0755	0	6	6	1	5	0	1	0	4	2
0800	0	12	6	1	6	1	3	3	4	3
0805	3	14	9	1	6	0	1	3	5	6
0810	0	4	5	1	2	0	1	1	8	5
0815	0	11	11	2	6	1	1	2	5	8
0820	0	6	9	1	6	1	2	0	4	3
0825	0	12	11	1	6	1	3	2	7	2
0830	0	7	7	1	8	2	2	2	5	4
0835	3	6	5	0	5	3	1	2	5	3
0840	0	5	10	0	9	2	2	2	9	2
0845	1	4	5	2	8	1	2	2	4	3
0850	1	6	9	1	5	0	2	2	3	1
0855	0	3	7	1	3	0	2	0	1	2
0900	0	2	9	1	3	0	1	1	1	1
0905	1	2	4	0	3	0	0	0	4	1
0910	1	2	1	0	2	0	0	1	5	3
0915	1	3	6	2	3	0	1	1	2	1
0920	0	5	2	0	4	1	1	0	2	2
0925	0	6	4	0	4	0	0	2	3	3

Lane 1 is nearside lane

TIME	A421 (North)		St Neots Road (East)		A421 (North)			St Neots Road (West)		Water End
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 1
1630	0	6	3	1	4	2	2	2	3	3
1635	1	7	4	0	4	0	2	3	11	1
1640	0	14	4	1	7	0	2	3	13	2
1645	1	15	6	1	8	1	3	1	7	1
1650	0	9	4	1	6	2	5	0	7	1
1655	0	4	3	0	4	0	2	2	2	1
1700	0	7	4	1	4	1	3	5	12	1
1705	0	7	7	1	10	2	2	1	16	1
1710	1	7	7	1	10	2	3	2	17	2
1715	0	5	4	2	11	1	2	3	19	3
1720	0	6	5	2	7	1	1	1	14	1
1725	0	7	3	0	10	2	3	2	7	3
1730	0	6	5	1	8	1	3	1	5	1
1735	1	10	6	1	10	1	3	1	11	1
1740	0	6	5	0	12	1	3	1	10	3
1745	4	6	7	1	13	0	3	2	5	3
1750	0	3	4	0	13	1	2	2	6	1
1755	0	5	3	1	5	0	1	2	5	5
1800	0	10	3	1	3	0	2	2	3	1
1805	0	5	8	1	4	1	1	2	6	2
1810	4	9	3	1	8	2	2	3	3	2
1815	0	4	2	0	4	0	1	2	5	0
1820	0	2	1	2	4	0	1	1	2	0
1825	0	4	4	0	4	0	0	2	0	0

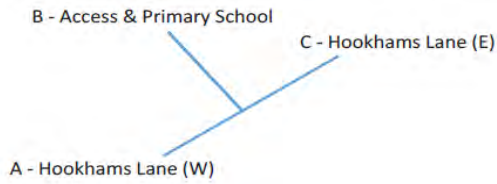


**Appendix M**

A1 – Hookhams Lane Access: Analysis – Input and Results



## A1 Access to Hookhams Lane



Background 2017

AM	A	B	C
A			258
B			
C	365		

Tempro 2017-2030

AM	A	B	C
A	1.170	1.170	1.170
B	1.170	1.170	1.170
C	1.170	1.170	1.170

Background 2030

AM	A	B	C
A	0	0	302
B	0	0	0
C	427	0	0

Committed Development

AM	A	B	C
A	0	2	0
B	6	0	0
C	0	0	0

Background 2030 + Committed

AM	A	B	C
A	0	2	302
B	6	0	0
C	427	0	0

Development

AM	A	B	C
A	0	71	0
B	194	0	73
C	0	40	0

Background 2030 + Development

AM	A	B	C
A	0	72	302
B	200	0	73
C	427	40	0

Background 2017

PM	A	B	C
A			366
B			
C	220		

Tempro 2017-2030

PM	A	B	C
A	1.176	1.176	1.176
B	1.176	1.176	1.176
C	1.176	1.176	1.176

Background 2030

PM	A	B	C
A	0	0	430
B	0	0	0
C	259	0	0

Committed Development

PM	A	B	C
A	0	5	0
B	2	0	0
C	0	0	0

Background 2030 + Committed

PM	A	B	C
A	0	5	430
B	2	0	0
C	259	0	0

Development

PM	A	B	C
A	0	134	0
B	61	0	21
C	0	42	0

Background 2030 + Development

PM	A	B	C
A	0	139	430
B	63	0	21
C	259	42	0

<b>Junctions 9</b>
<b>PICADY 9 - Priority Intersection Module</b>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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:** A1 Hookhams Lane Access.j9  
**Path:** C:\Users\Martin\OneDrive - Martin Andrews Consulting Ltd\Projects 200 - 299\248 - Salph End, Bedford\Reports\TA\Junction Analysis  
**Report generation date:** 25/07/2019 14:01:41

»2030-Base+Comm+Dev, AM  
 »2030-Base+Comm+Dev, PM

**Summary of junction performance**

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	<b>2030-Base+Comm+Dev</b>							
Stream B-C	0.3	14.69	0.25	B	0.1	8.64	0.05	A
Stream B-A	1.7	28.63	0.64	D	0.3	13.38	0.20	B
Stream C-AB	0.3	4.96	0.11	A	0.2	5.97	0.12	A

*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**

<b>Title</b>	
<b>Location</b>	
<b>Site number</b>	
<b>Date</b>	24/07/2019
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	DESKTOP-2HPI2P9\Martin
<b>Description</b>	

**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
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

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

# 2030-Base+Comm+Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
A1	Access to Hookhams Lane	T-Junction	Two-way		6.45	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	Hookhams Ln (W)		Major
B	Access		Minor
C	Hookhams Ln (E)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			93.0	✓	0.00

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

### Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	7.08	3.28	3.00	3.00	3.00		1.00	25	40

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
A1	B-A	528	0.096	0.243	0.153	0.348
A1	B-C	589	0.090	0.228	-	-
A1	C-B	628	0.243	0.243	-	-

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

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

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	374	100.000
B		ONE HOUR	✓	273	100.000
C		ONE HOUR	✓	467	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	72	302
	B	200	0	73
	C	427	40	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	1
	B	0	0	0
	C	1	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.25	14.69	0.3	B	67	100
B-A	0.64	28.63	1.7	D	184	275
C-AB	0.11	4.96	0.3	A	72	109
C-A					356	534
A-B					66	99
A-C					277	416

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55	14	462	0.119	54	0.0	0.1	8.819	A
B-A	151	38	407	0.370	148	0.0	0.6	13.823	B
C-AB	51	13	781	0.066	51	0.0	0.1	4.952	A
C-A	300	75			300				
A-B	54	14			54				
A-C	227	57			227				

**08:00 - 08:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	16	417	0.157	65	0.1	0.2	10.233	B
B-A	180	45	381	0.471	179	0.6	0.9	17.646	C
C-AB	68	17	814	0.084	68	0.1	0.2	4.852	A
C-A	351	88			351				
A-B	65	16			65				
A-C	271	68			271				

**08:15 - 08:30**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	20	330	0.243	80	0.2	0.3	14.347	B
B-A	220	55	345	0.638	217	0.9	1.6	27.422	D
C-AB	98	24	860	0.113	97	0.2	0.3	4.745	A
C-A	417	104			417				
A-B	79	20			79				
A-C	333	83			333				

**08:30 - 08:45**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	20	325	0.247	80	0.3	0.3	14.689	B
B-A	220	55	345	0.638	220	1.6	1.7	28.632	D
C-AB	98	24	860	0.114	98	0.3	0.3	4.752	A
C-A	416	104			416				
A-B	79	20			79				
A-C	333	83			333				

**08:45 - 09:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	16	412	0.159	66	0.3	0.2	10.418	B
B-A	180	45	381	0.472	183	1.7	0.9	18.424	C
C-AB	69	17	814	0.084	69	0.3	0.2	4.863	A
C-A	351	88			351				
A-B	65	16			65				
A-C	271	68			271				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55	14	459	0.120	55	0.2	0.1	8.915	A
B-A	151	38	406	0.371	152	0.9	0.6	14.225	B
C-AB	51	13	781	0.066	52	0.2	0.1	4.960	A
C-A	300	75			300				
A-B	54	14			54				
A-C	227	57			227				

# 2030-Base+Comm+Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
A1	Access to Hookhams Lane	T-Junction	Two-way		1.49	A

### 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
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	569	100.000
B		ONE HOUR	✓	84	100.000
C		ONE HOUR	✓	301	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	139	430
	B	63	0	21
	C	259	42	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	8.64	0.1	A	19	29
B-A	0.20	13.38	0.3	B	58	87
C-AB	0.12	5.97	0.2	A	61	91
C-A					215	323
A-B					128	191
A-C					395	592

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	490	0.032	16	0.0	0.0	7.584	A
B-A	47	12	399	0.119	47	0.0	0.1	10.217	B
C-AB	45	11	662	0.068	44	0.0	0.1	5.845	A
C-A	182	45			182				
A-B	105	26			105				
A-C	324	81			324				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	5	470	0.040	19	0.0	0.0	7.987	A
B-A	57	14	373	0.152	56	0.1	0.2	11.354	B
C-AB	58	14	671	0.086	58	0.1	0.2	5.892	A
C-A	213	53			213				
A-B	125	31			125				
A-C	387	97			387				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	440	0.053	23	0.0	0.1	8.638	A
B-A	69	17	338	0.205	69	0.2	0.3	13.352	B
C-AB	79	20	685	0.116	79	0.2	0.2	5.964	A
C-A	252	63			252				
A-B	153	38			153				
A-C	473	118			473				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	440	0.053	23	0.1	0.1	8.643	A
B-A	69	17	338	0.205	69	0.3	0.3	13.381	B
C-AB	80	20	686	0.116	80	0.2	0.2	5.974	A
C-A	252	63			252				
A-B	153	38			153				
A-C	473	118			473				



**17:45 - 18:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	5	469	0.040	19	0.1	0.0	7.993	A
B-A	57	14	373	0.152	57	0.3	0.2	11.390	B
C-AB	58	15	671	0.087	58	0.2	0.2	5.904	A
C-A	212	53			212				
A-B	125	31			125				
A-C	387	97			387				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	490	0.032	16	0.0	0.0	7.596	A
B-A	47	12	399	0.119	48	0.2	0.1	10.263	B
C-AB	45	11	662	0.068	45	0.2	0.1	5.859	A
C-A	182	45			182				
A-B	105	26			105				
A-C	324	81			324				

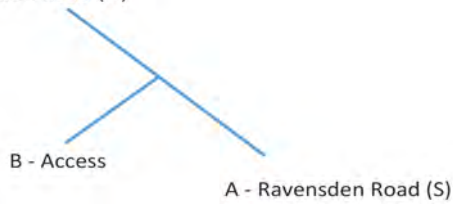


**Appendix N**

A2 – Access to Ravensden Road: Analysis – Input and Results

## A2 Access to Ravensden Rd

C - Ravensden Road (N)



Background 2017

AM	A	B	C
A			137
B			
C	363		

Tempro 2017-2030

AM	A	B	C
A	1.170	1.170	1.170
B	1.170	1.170	1.170
C	1.170	1.170	1.170

Background 2030

AM	A	B	C
A	0	0	160
B	0	0	0
C	425	0	0

Committed Development

AM	A	B	C
A	0	0	0
B	0	0	1
C	0	0	0

Background 2030 + Committed

AM	A	B	C
A	0	0	160
B	0	0	1
C	425	0	0

Development

AM	A	B	C
A	0	0	0
B	0	0	37
C	0	9	0

Background 2030 + Development

AM	A	B	C
A	0	0	160
B	0	0	38
C	425	10	0

Background 2017

PM	A	B	C
A			287
B			
C	186		

Tempro 2017-2030

PM	A	B	C
A	1.176	1.176	1.176
B	1.176	1.176	1.176
C	1.176	1.176	1.176

Background 2030

PM	A	B	C
A	0	0	338
B	0	0	0
C	219	0	0

Committed Development

PM	A	B	C
A	0	0	0
B	0	0	0
C	0	1	0

Background 2030 + Committed

PM	A	B	C
A	0	0	338
B	0	0	0
C	219	1	0

Development

PM	A	B	C
A	0	0	0
B	0	0	12
C	0	28	0

Background 2030 + Development

PM	A	B	C
A	0	0	338
B	0	0	13
C	219	29	0

<b>Junctions 9</b>
<b>PICADY 9 - Priority Intersection Module</b>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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:** A2 Ravensden Road Access.j9  
**Path:** C:\Users\Martin\OneDrive - Martin Andrews Consulting Ltd\Projects 200 - 299\248 - Salph End, Bedford\Reports\TA\Junction Analysis  
**Report generation date:** 24/07/2019 10:27:59

»2030-Base+Comm+Dev, AM  
 »2030-Base+Comm+Dev, PM

**Summary of junction performance**

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	<b>2030-Base+Comm+Dev</b>							
Stream B-C	0.1	6.09	0.07	A	0.0	6.35	0.02	A
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	4.44	0.02	A	0.1	5.43	0.07	A

*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**

<b>Title</b>	
<b>Location</b>	Ravensden Access
<b>Site number</b>	
<b>Date</b>	24/07/2019
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	DESKTOP-2HPI2P9\Martin
<b>Description</b>	

**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
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

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

# 2030-Base+Comm+Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
A2	Access to Ravensden Road	T-Junction	Two-way		0.50	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	Ravensden Rd (N)		Major
B	Access		Minor
C	Ravensden Rd (N)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			125.0	✓	0.00

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

### Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	9.25	3.33	3.00	3.00	3.00		1.00	25	40

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
A2	B-A	569	0.104	0.262	0.165	0.374
A2	B-C	679	0.104	0.263	-	-
A2	C-B	646	0.250	0.250	-	-

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

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

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	160	100.000
B		ONE HOUR	✓	38	100.000
C		ONE HOUR	✓	435	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	0	160
	B	0	0	38
	C	425	10	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	1
	B	0	0	0
	C	1	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.07	6.09	0.1	A	35	52
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.02	4.44	0.0	A	17	26
C-A					382	573
A-B					0	0
A-C					147	220

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	7	648	0.044	28	0.0	0.0	5.812	A
B-A	0	0	482	0.000	0	0.0	0.0	0.000	A
C-AB	12	3	827	0.015	12	0.0	0.0	4.437	A
C-A	315	79			315				
A-B	0	0			0				
A-C	120	30			120				

**08:00 - 08:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	642	0.053	34	0.0	0.1	5.926	A
B-A	0	0	465	0.000	0	0.0	0.0	0.000	A
C-AB	16	4	863	0.019	16	0.0	0.0	4.269	A
C-A	375	94			375				
A-B	0	0			0				
A-C	144	36			144				

**08:15 - 08:30**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	10	633	0.066	42	0.1	0.1	6.088	A
B-A	0	0	441	0.000	0	0.0	0.0	0.000	A
C-AB	23	6	914	0.025	23	0.0	0.0	4.059	A
C-A	456	114			456				
A-B	0	0			0				
A-C	176	44			176				

**08:30 - 08:45**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	10	633	0.066	42	0.1	0.1	6.088	A
B-A	0	0	441	0.000	0	0.0	0.0	0.000	A
C-AB	23	6	914	0.025	23	0.0	0.0	4.060	A
C-A	456	114			456				
A-B	0	0			0				
A-C	176	44			176				

**08:45 - 09:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	642	0.053	34	0.1	0.1	5.929	A
B-A	0	0	465	0.000	0	0.0	0.0	0.000	A
C-AB	16	4	863	0.019	16	0.0	0.0	4.272	A
C-A	375	94			375				
A-B	0	0			0				
A-C	144	36			144				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	7	648	0.044	29	0.1	0.0	5.817	A
B-A	0	0	482	0.000	0	0.0	0.0	0.000	A
C-AB	12	3	827	0.015	12	0.0	0.0	4.441	A
C-A	315	79			315				
A-B	0	0			0				
A-C	120	30			120				



# 2030-Base+Comm+Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
A2	Access to Ravensden Road	T-Junction	Two-way		0.51	A

### 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
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	338	100.000
B		ONE HOUR	✓	13	100.000
C		ONE HOUR	✓	248	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	338
	B	0	0	13
	C	219	29	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	6.35	0.0	A	12	18
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.07	5.43	0.1	A	38	57
C-A					190	285
A-B					0	0
A-C					310	465

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	612	0.016	10	0.0	0.0	5.973	A
B-A	0	0	467	0.000	0	0.0	0.0	0.000	A
C-AB	29	7	694	0.041	28	0.0	0.1	5.419	A
C-A	158	40			158				
A-B	0	0			0				
A-C	254	64			254				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	599	0.020	12	0.0	0.0	6.124	A
B-A	0	0	447	0.000	0	0.0	0.0	0.000	A
C-AB	36	9	705	0.051	36	0.1	0.1	5.398	A
C-A	187	47			187				
A-B	0	0			0				
A-C	304	76			304				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	581	0.025	14	0.0	0.0	6.347	A
B-A	0	0	419	0.000	0	0.0	0.0	0.000	A
C-AB	48	12	720	0.067	48	0.1	0.1	5.372	A
C-A	225	56			225				
A-B	0	0			0				
A-C	372	93			372				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	581	0.025	14	0.0	0.0	6.347	A
B-A	0	0	419	0.000	0	0.0	0.0	0.000	A
C-AB	48	12	720	0.067	48	0.1	0.1	5.376	A
C-A	225	56			225				
A-B	0	0			0				
A-C	372	93			372				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	599	0.020	12	0.0	0.0	6.125	A
B-A	0	0	447	0.000	0	0.0	0.0	0.000	A
C-AB	36	9	705	0.051	36	0.1	0.1	5.404	A
C-A	187	47			187				
A-B	0	0			0				
A-C	304	76			304				

18:00 - 18:15

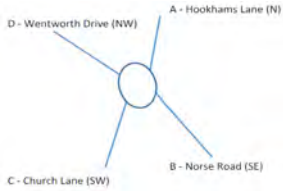
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	612	0.016	10	0.0	0.0	5.975	A
B-A	0	0	467	0.000	0	0.0	0.0	0.000	A
C-AB	29	7	694	0.041	29	0.1	0.1	5.427	A
C-A	158	40			158				
A-B	0	0			0				
A-C	254	64			254				



**Appendix O**

J1 – Hookhams Lane / Norse Road / Church Lane / Wentworth Drive: Analysis – Input and Results

J1: Hookhams Lane / Norse Road / Church Lane / Wentworth Drive



Background 2017

AM	A	B	C	D
A	0	211	78	78
B	108	0	101	422
C	65	110	0	167
D	53	533	128	0

Tempo 2017-2030

AM	A	B	C	D
A	1.170	1.170	1.170	1.170
B	1.170	1.170	1.170	1.170
C	1.170	1.170	1.170	1.170
D	1.170	1.170	1.170	1.170

Background 2030

AM	A	B	C	D
A	0	247	91	91
B	126	0	118	494
C	76	129	0	195
D	62	624	150	0

Committed Development

AM	A	B	C	D
A	0	2	2	2
B	1	0	0	0
C	0	0	0	0
D	0	0	0	0

Background 2030 + Committed

AM	A	B	C	D
A	0	249	93	93
B	127	0	118	494
C	77	129	0	195
D	62	624	150	0

Development

AM	A	B	C	D
A	0	69	61	57
B	23	0	0	0
C	21	0	0	0
D	20	0	0	0

Background 2030 + Development

AM	A	B	C	D
A	0	318	154	150
B	150	0	118	494
C	97	129	0	195
D	82	624	150	0

Background 2017

PM	A	B	C	D
A	0	71	82	50
B	161	0	155	550
C	72	91	0	105
D	68	266	85	0

Tempo 2017-2030

PM	A	B	C	D
A	1.176	1.176	1.176	1.176
B	1.176	1.176	1.176	1.176
C	1.176	1.176	1.176	1.176
D	1.176	1.176	1.176	1.176

Background 2030

PM	A	B	C	D
A	0	83	96	59
B	189	0	182	647
C	85	107	0	123
D	80	313	100	0

Committed Development

PM	A	B	C	D
A	0	1	1	1
B	2	0	0	0
C	2	0	0	0
D	1	0	0	0

Background 2030 + Committed

PM	A	B	C	D
A	0	84	97	59
B	191	0	182	647
C	86	107	0	123
D	81	313	100	0

Development

PM	A	B	C	D
A	0	22	20	18
B	50	0	0	0
C	43	0	0	0
D	40	0	0	0

Background 2030 + Development

PM	A	B	C	D
A	0	107	117	78
B	241	0	182	647
C	130	107	0	123
D	121	313	100	0

HGV%age

AM	A	B	C	D
A		0.47	0.00	1.28
B	0.93		5.94	0.71
C	0.00	5.45		2.99
D	0.00	1.84	2.34	

HGV%age

PM	A	B	C	D
A		0.00	0.00	0.00
B	0.62		3.23	0.55
C	0.00	5.49		0.95
D	0.00	0.00	2.35	

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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:** J1 Hookhams Ln.j9  
**Path:** C:\Users\Martin\OneDrive - Martin Andrews Consulting Ltd\Projects 200 - 299\248 - Salph End, Bedford\Reports\TA\Junction Analysis  
**Report generation date:** 25/07/2019 14:03:40

- »2017-Base, AM
- »2017-Base, PM
- »2030-Base+Comm, AM
- »2030-Base+Comm, PM
- »2030-Base+Comm+Dev, AM
- »2030-Base+Comm+Dev, PM

**Summary of junction performance**

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2017-Base								
Arm A	0.7	6.11	0.41	A	0.2	3.80	0.19	A
Arm B	0.9	4.89	0.48	A	1.8	6.89	0.64	A
Arm C	0.4	3.80	0.28	A	0.3	3.83	0.23	A
Arm D	1.1	4.94	0.51	A	0.4	3.51	0.31	A
2030-Base+Comm								
Arm A	1.1	8.17	0.52	A	0.3	4.17	0.23	A
Arm B	1.4	6.12	0.58	A	3.3	10.85	0.77	B
Arm C	0.5	4.38	0.34	A	0.4	4.46	0.30	A
Arm D	1.6	6.34	0.61	A	0.6	3.96	0.37	A
2030-Base+Comm+Dev								
Arm A	2.8	15.10	0.74	C	0.4	4.52	0.29	A
Arm B	1.7	7.32	0.63	A	4.4	14.03	0.82	B
Arm C	0.6	4.77	0.37	A	0.5	4.99	0.35	A
Arm D	1.8	6.90	0.64	A	0.7	4.42	0.42	A

*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	
Location	
Site number	
Date	24/07/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DESKTOP-2HPI2P9\Martin
Description	

### Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	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
D1	2017-Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2017-Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2030-Base+Comm	AM	ONE HOUR	07:45	09:15	15	✓
D4	2030-Base+Comm	PM	ONE HOUR	16:45	18:15	15	✓
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

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

# 2017-Base, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	J2 Hookhams Lane / Norse Road / Church Lane / Wentworth Drive	Standard Roundabout		A, B, C, D	4.94	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
A	Hookhams Ln	
B	Norse Rd	
C	Church Ln	
D	Wentworth Rd	

### 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
A	2.79	6.20	11.7	23.1	64.0	25.0	
B	3.04	6.13	17.5	25.0	60.2	14.0	
C	3.64	6.29	26.0	26.6	61.9	31.0	
D	3.60	6.68	20.9	20.9	64.0	36.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.493	1413
B	0.559	1619
C	0.553	1723
D	0.529	1693

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	2017-Base	AM	ONE HOUR	07:45	09:15	15	✓

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



### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	367	100.000
B		ONE HOUR	✓	631	100.000
C		ONE HOUR	✓	342	100.000
D		ONE HOUR	✓	714	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To			
	A	B	C	D
A	0	211	78	78
B	108	0	101	422
C	65	110	0	167
D	53	533	128	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	A	B	C	D
A	0	0	0	1
B	1	0	6	1
C	0	5	0	3
D	0	2	2	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)
A	0.41	6.11	0.7	A	337	505
B	0.48	4.89	0.9	A	579	869
C	0.28	3.80	0.4	A	314	471
D	0.51	4.94	1.1	A	655	983

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	276	69	578	1128	0.245	275	170	0.0	0.3	4.225	A
B	475	119	213	1500	0.317	473	640	0.0	0.5	3.563	A
C	257	64	456	1471	0.175	257	230	0.0	0.2	3.053	A
D	538	134	212	1580	0.340	535	500	0.0	0.5	3.501	A

**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)	Unsignalised level of service
A	330	82	692	1071	0.308	329	203	0.3	0.4	4.859	A
B	567	142	255	1476	0.384	567	767	0.5	0.6	4.026	A
C	307	77	546	1421	0.216	307	276	0.2	0.3	3.329	A
D	642	160	254	1558	0.412	641	599	0.5	0.7	3.994	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)	Unsignalised level of service
A	404	101	847	995	0.406	403	248	0.4	0.7	6.085	A
B	695	174	312	1444	0.481	694	939	0.6	0.9	4.872	A
C	377	94	668	1354	0.278	376	337	0.3	0.4	3.791	A
D	786	197	311	1528	0.514	785	733	0.7	1.1	4.925	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)	Unsignalised level of service
A	404	101	849	994	0.406	404	249	0.7	0.7	6.112	A
B	695	174	313	1444	0.481	695	940	0.9	0.9	4.890	A
C	377	94	669	1353	0.278	377	338	0.4	0.4	3.797	A
D	786	197	312	1528	0.515	786	734	1.1	1.1	4.943	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)	Unsignalised level of service
A	330	82	695	1070	0.308	331	204	0.7	0.4	4.884	A
B	567	142	256	1476	0.384	568	769	0.9	0.6	4.044	A
C	307	77	548	1420	0.216	308	277	0.4	0.3	3.334	A
D	642	160	255	1558	0.412	643	601	1.1	0.7	4.015	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)	Unsignalised level of service
A	276	69	581	1126	0.245	277	170	0.4	0.3	4.249	A
B	475	119	214	1499	0.317	476	644	0.6	0.5	3.582	A
C	257	64	458	1470	0.175	258	231	0.3	0.2	3.060	A
D	538	134	213	1580	0.340	538	503	0.7	0.5	3.524	A

# 2017-Base, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	J2 Hookhams Lane / Norse Road / Church Lane / Wentworth Drive	Standard Roundabout		A, B, C, D	5.26	A

### 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	2017-Base	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	203	100.000
B		ONE HOUR	✓	866	100.000
C		ONE HOUR	✓	268	100.000
D		ONE HOUR	✓	419	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		A	B	C	D	
From	A	0	71	82	50	
	B	161	0	155	550	
	C	72	91	0	105	
	D	68	266	85	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	0	0	1	
	B	1	0	6	1	
	C	0	5	0	3	
	D	0	2	2	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)
A	0.19	3.80	0.2	A	186	279
B	0.64	6.89	1.8	A	795	1192
C	0.23	3.83	0.3	A	246	369
D	0.31	3.51	0.4	A	384	577

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	153	38	332	1249	0.122	152	226	0.0	0.1	3.287	A
B	652	163	163	1528	0.427	649	321	0.0	0.8	4.159	A
C	202	50	570	1408	0.143	201	241	0.0	0.2	3.066	A
D	315	79	243	1564	0.202	314	528	0.0	0.3	2.925	A

#### 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)	Unsignalised level of service
A	182	46	397	1217	0.150	182	270	0.1	0.2	3.487	A
B	779	195	195	1510	0.516	777	384	0.8	1.1	4.997	A
C	241	60	683	1346	0.179	241	289	0.2	0.2	3.350	A
D	377	94	291	1539	0.245	376	633	0.3	0.3	3.148	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)	Unsignalised level of service
A	224	56	486	1173	0.191	223	331	0.2	0.2	3.799	A
B	953	238	239	1485	0.642	951	471	1.1	1.8	6.823	A
C	295	74	835	1261	0.234	295	354	0.2	0.3	3.829	A
D	461	115	356	1504	0.307	461	774	0.3	0.4	3.505	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)	Unsignalised level of service
A	224	56	487	1173	0.191	224	331	0.2	0.2	3.800	A
B	953	238	239	1485	0.642	953	471	1.8	1.8	6.895	A
C	295	74	838	1260	0.234	295	355	0.3	0.3	3.835	A
D	461	115	357	1504	0.307	461	776	0.4	0.4	3.509	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)	Unsignalised level of service
A	182	46	398	1217	0.150	183	271	0.2	0.2	3.492	A
B	779	195	195	1509	0.516	781	385	1.8	1.1	5.055	A
C	241	60	687	1344	0.179	241	290	0.3	0.2	3.360	A
D	377	94	292	1538	0.245	377	636	0.4	0.3	3.153	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)	Unsignalised level of service
A	153	38	333	1249	0.122	153	227	0.2	0.1	3.295	A
B	652	163	164	1527	0.427	653	323	1.1	0.8	4.203	A
C	202	50	574	1406	0.144	202	243	0.2	0.2	3.074	A
D	315	79	244	1563	0.202	316	532	0.3	0.3	2.933	A

# 2030-Base+Comm, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	J2 Hookhams Lane / Norse Road / Church Lane / Wentworth Drive	Standard Roundabout		A, B, C, D	6.28	A

### 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
D3	2030-Base+Comm	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	437	100.000
B		ONE HOUR	✓	739	100.000
C		ONE HOUR	✓	401	100.000
D		ONE HOUR	✓	836	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		A	B	C	D	
From	A	0	251	93	93	
	B	127	0	118	494	
	C	77	129	0	195	
	D	62	624	150	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	0	0	1	
	B	1	0	6	1	
	C	0	5	0	3	
	D	0	2	2	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)
A	0.52	8.17	1.1	A	401	601
B	0.58	6.12	1.4	A	678	1017
C	0.34	4.38	0.5	A	368	552
D	0.61	6.34	1.6	A	767	1151

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	329	82	677	1079	0.305	327	199	0.0	0.4	4.788	A
B	556	139	252	1478	0.376	554	752	0.0	0.6	3.955	A
C	302	75	535	1427	0.211	301	271	0.0	0.3	3.289	A
D	629	157	250	1561	0.403	627	586	0.0	0.7	3.915	A

#### 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)	Unsignalised level of service
A	393	98	811	1013	0.388	392	239	0.4	0.6	5.802	A
B	664	166	302	1450	0.458	663	901	0.6	0.9	4.651	A
C	360	90	641	1369	0.263	360	324	0.3	0.4	3.677	A
D	752	188	299	1534	0.490	750	702	0.7	1.0	4.669	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)	Unsignalised level of service
A	481	120	992	924	0.521	479	292	0.6	1.1	8.086	A
B	814	203	369	1412	0.576	812	1102	0.9	1.4	6.076	A
C	442	110	784	1290	0.342	441	396	0.4	0.5	4.362	A
D	920	230	366	1499	0.614	918	859	1.0	1.6	6.281	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)	Unsignalised level of service
A	481	120	994	923	0.522	481	293	1.1	1.1	8.168	A
B	814	203	370	1412	0.576	814	1105	1.4	1.4	6.124	A
C	442	110	786	1289	0.343	441	397	0.5	0.5	4.377	A
D	920	230	367	1499	0.614	920	861	1.6	1.6	6.340	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)	Unsignalised level of service
A	393	98	814	1011	0.388	395	240	1.1	0.6	5.865	A
B	664	166	303	1449	0.458	666	906	1.4	0.9	4.692	A
C	360	90	644	1367	0.264	361	326	0.5	0.4	3.691	A
D	752	188	300	1534	0.490	754	705	1.6	1.0	4.717	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)	Unsignalised level of service
A	329	82	681	1077	0.305	330	201	0.6	0.4	4.834	A
B	556	139	254	1477	0.377	557	757	0.9	0.6	3.988	A
C	302	75	539	1426	0.212	302	272	0.4	0.3	3.302	A
D	629	157	251	1560	0.403	631	590	1.0	0.7	3.950	A



# 2030-Base+Comm, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	J2 Hookhams Lane / Norse Road / Church Lane / Wentworth Drive	Standard Roundabout		A, B, C, D	7.45	A

### 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
D4	2030-Base+Comm	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	241	100.000
B		ONE HOUR	✓	1021	100.000
C		ONE HOUR	✓	316	100.000
D		ONE HOUR	✓	494	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		A	B	C	D	
From	A	0	85	97	59	
	B	192	0	182	647	
	C	86	107	0	123	
	D	81	313	100	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	0	0	1	
	B	1	0	6	1	
	C	0	5	0	3	
	D	0	2	2	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)
A	0.23	4.17	0.3	A	221	332
B	0.77	10.85	3.3	B	937	1405
C	0.30	4.46	0.4	A	290	435
D	0.37	3.96	0.6	A	453	680

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	181	45	390	1221	0.149	181	269	0.0	0.2	3.469	A
B	769	192	192	1511	0.509	764	379	0.0	1.0	4.883	A
C	238	59	672	1352	0.176	237	284	0.0	0.2	3.321	A
D	372	93	289	1540	0.242	371	621	0.0	0.3	3.127	A

#### 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)	Unsignalised level of service
A	217	54	467	1183	0.183	216	322	0.2	0.2	3.735	A
B	918	229	230	1490	0.616	916	454	1.0	1.6	6.357	A
C	284	71	805	1278	0.222	284	340	0.2	0.3	3.723	A
D	444	111	346	1510	0.294	444	744	0.3	0.4	3.433	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)	Unsignalised level of service
A	265	66	572	1131	0.235	265	394	0.2	0.3	4.167	A
B	1124	281	282	1461	0.769	1118	555	1.6	3.2	10.473	B
C	348	87	983	1180	0.295	347	416	0.3	0.4	4.444	A
D	544	136	422	1469	0.370	543	908	0.4	0.6	3.950	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)	Unsignalised level of service
A	265	66	573	1131	0.235	265	395	0.3	0.3	4.170	A
B	1124	281	282	1461	0.769	1124	556	3.2	3.3	10.847	B
C	348	87	988	1177	0.296	348	417	0.4	0.4	4.465	A
D	544	136	424	1468	0.370	544	913	0.6	0.6	3.958	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)	Unsignalised level of service
A	217	54	468	1182	0.183	217	324	0.3	0.2	3.739	A
B	918	229	230	1490	0.616	924	455	3.3	1.7	6.559	A
C	284	71	813	1274	0.223	285	342	0.4	0.3	3.745	A
D	444	111	348	1509	0.294	445	750	0.6	0.4	3.444	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)	Unsignalised level of service
A	181	45	392	1220	0.149	182	271	0.2	0.2	3.479	A
B	769	192	193	1511	0.509	771	381	1.7	1.1	4.972	A
C	238	59	678	1348	0.176	238	286	0.3	0.2	3.334	A
D	372	93	290	1539	0.242	372	626	0.4	0.3	3.137	A

# 2030-Base+Comm+Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	J2 Hookhams Lane / Norse Road / Church Lane / Wentworth Drive	Standard Roundabout		A, B, C, D	8.60	A

### 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
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	622	100.000
B		ONE HOUR	✓	762	100.000
C		ONE HOUR	✓	421	100.000
D		ONE HOUR	✓	856	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		A	B	C	D	
From	A	0	318	154	150	
	B	150	0	118	494	
	C	97	129	0	195	
	D	82	624	150	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	0	0	1	
	B	1	0	6	1	
	C	0	5	0	3	
	D	0	2	2	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)
A	0.74	15.10	2.8	C	571	856
B	0.63	7.32	1.7	A	699	1049
C	0.37	4.77	0.6	A	386	579
D	0.64	6.90	1.8	A	785	1178

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	468	117	677	1079	0.434	465	247	0.0	0.8	5.851	A
B	574	143	340	1429	0.402	571	802	0.0	0.7	4.271	A
C	317	79	595	1394	0.227	316	316	0.0	0.3	3.431	A
D	644	161	282	1544	0.418	642	629	0.0	0.7	4.050	A

#### 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)	Unsignalised level of service
A	559	140	811	1013	0.552	557	295	0.8	1.2	7.886	A
B	685	171	407	1391	0.492	684	961	0.7	1.0	5.171	A
C	378	95	712	1329	0.285	378	379	0.3	0.4	3.891	A
D	770	192	338	1514	0.508	768	753	0.7	1.0	4.906	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)	Unsignalised level of service
A	685	171	991	924	0.741	679	361	1.2	2.7	14.381	B
B	839	210	496	1341	0.626	836	1174	1.0	1.7	7.221	A
C	464	116	870	1242	0.373	463	462	0.4	0.6	4.747	A
D	942	236	413	1474	0.639	940	920	1.0	1.8	6.819	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)	Unsignalised level of service
A	685	171	994	923	0.742	684	362	2.7	2.8	15.099	C
B	839	210	500	1339	0.626	839	1179	1.7	1.7	7.317	A
C	464	116	874	1240	0.374	464	465	0.6	0.6	4.769	A
D	942	236	414	1474	0.640	942	924	1.8	1.8	6.896	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)	Unsignalised level of service
A	559	140	815	1011	0.553	565	297	2.8	1.3	8.203	A
B	685	171	412	1388	0.493	688	968	1.7	1.0	5.246	A
C	378	95	718	1327	0.285	379	382	0.6	0.4	3.914	A
D	770	192	339	1513	0.509	772	758	1.8	1.1	4.967	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)	Unsignalised level of service
A	468	117	681	1077	0.435	470	248	1.3	0.8	5.965	A
B	574	143	343	1427	0.402	575	808	1.0	0.7	4.306	A
C	317	79	599	1392	0.228	317	319	0.4	0.3	3.450	A
D	644	161	284	1543	0.418	646	633	1.1	0.7	4.091	A

# 2030-Base+Comm+Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	J2 Hookhams Lane / Norse Road / Church Lane / Wentworth Drive	Standard Roundabout		A, B, C, D	9.06	A

### 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
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	302	100.000
B		ONE HOUR	✓	1070	100.000
C		ONE HOUR	✓	360	100.000
D		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		A	B	C	D	
From	A	0	107	117	78	
	B	241	0	182	647	
	C	130	107	0	123	
	D	121	313	100	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	0	0	1	
	B	1	0	6	1	
	C	0	5	0	3	
	D	0	2	2	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)
A	0.29	4.52	0.4	A	277	416
B	0.82	14.03	4.4	B	982	1473
C	0.35	4.99	0.5	A	330	496
D	0.42	4.42	0.7	A	490	735

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	227	57	390	1221	0.186	226	369	0.0	0.2	3.627	A
B	806	201	221	1495	0.539	801	395	0.0	1.2	5.244	A
C	271	68	723	1324	0.205	270	299	0.0	0.3	3.498	A
D	402	101	358	1503	0.267	401	635	0.0	0.4	3.310	A

#### 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)	Unsignalised level of service
A	271	68	467	1183	0.230	271	441	0.2	0.3	3.959	A
B	962	240	265	1470	0.654	959	473	1.2	1.9	7.127	A
C	324	81	866	1245	0.260	323	358	0.3	0.4	4.002	A
D	480	120	429	1466	0.328	480	760	0.4	0.5	3.704	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)	Unsignalised level of service
A	333	83	572	1131	0.294	332	539	0.3	0.4	4.514	A
B	1178	295	324	1437	0.820	1168	579	1.9	4.3	13.182	B
C	396	99	1055	1140	0.348	396	437	0.4	0.5	4.951	A
D	588	147	524	1416	0.415	587	927	0.5	0.7	4.407	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)	Unsignalised level of service
A	333	83	573	1131	0.294	333	542	0.4	0.4	4.522	A
B	1178	295	325	1437	0.820	1177	580	4.3	4.4	14.027	B
C	396	99	1063	1136	0.349	396	439	0.5	0.5	4.989	A
D	588	147	526	1414	0.416	588	933	0.7	0.7	4.423	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)	Unsignalised level of service
A	271	68	468	1182	0.230	272	445	0.4	0.3	3.968	A
B	962	240	266	1470	0.654	972	475	4.4	2.0	7.498	A
C	324	81	877	1239	0.261	324	361	0.5	0.4	4.039	A
D	480	120	432	1464	0.328	481	769	0.7	0.5	3.724	A

18:00 - 18:15

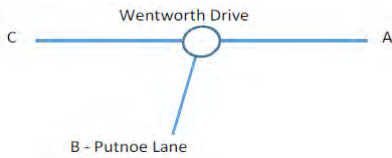
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	227	57	392	1220	0.186	228	371	0.3	0.2	3.638	A
B	806	201	222	1494	0.539	809	397	2.0	1.2	5.368	A
C	271	68	730	1320	0.205	271	301	0.4	0.3	3.521	A
D	402	101	361	1502	0.268	403	640	0.5	0.4	3.328	A



**Appendix P**

J2 – Wentworth Drive / Putnoe Lane: Analysis – Input and Results

J2: Wentworth Drive / Putnoe Lane



Background 2017

AM	A	B	C
A	0	296	354
B	228	0	42
C	478	63	0

Tempo 2017-2030

AM	A	B	C
A	1.170	1.170	1.170
B	1.170	1.170	1.170
C	1.170	1.170	1.170

Background 2030

AM	A	B	C
A	0	346	414
B	267	0	49
C	559	74	0

Committed Development

AM	A	B	C
A	0	1	1
B	0	0	0
C	0	0	0

Background 2030 + Committed

AM	A	B	C
A	0	347	415
B	267	0	49
C	559	74	0

Development

AM	A	B	C
A	0	28	22
B	7	0	0
C	6	0	0

Background 2030 + Development

AM	A	B	C
A	0	376	437
B	274	0	49
C	565	74	0

Background 2017

PM	A	B	C
A	0	190	486
B	168	0	39
C	260	31	0

Tempo 2017-2030

PM	A	B	C
A	1.176	1.176	1.176
B	1.176	1.176	1.176
C	1.176	1.176	1.176

Background 2030

PM	A	B	C
A	0	223	572
B	198	0	46
C	306	36	0

Committed Development

PM	A	B	C
A	0	2	0
B	1	0	0
C	1	0	0

Background 2030 + Committed

PM	A	B	C
A	0	225	572
B	198	0	46
C	306	36	0

Development

PM	A	B	C
A	0	10	8
B	22	0	0
C	17	0	0

Background 2030 + Development

PM	A	B	C
A	0	235	579
B	220	0	46
C	324	36	0

HGV%age

AM	A	B	C
A		0.68	0.85
B	0.88		0.00
C	1.88	0.00	

HGV%age

PM	A	B	C
A		0.00	0.82
B	0.00		0.00
C	0.77	0.00	

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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:** J2-Wentworth \_ Putnoe.j9  
**Path:** C:\Users\Martin\OneDrive - Martin Andrews Consulting Ltd\Projects 200 - 299\248 - Salph End, Bedford\Reports\TA\Junction Analysis  
**Report generation date:** 24/07/2019 12:50:07

- »2017-Base, AM
- »2017-Base, PM
- »2017-Base+Comm, AM
- »2017-Base+Comm, PM
- »2017-Base+Comm+Dev, AM
- »2017-Base+Comm+Dev, PM

**Summary of junction performance**

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2017-Base</b>								
Arm A	1.9	9.91	0.66	A	2.0	10.04	0.67	B
Arm B	0.8	9.61	0.44	A	0.6	10.17	0.39	B
Arm C	2.5	15.44	0.72	C	0.6	6.53	0.37	A
<b>2017-Base+Comm</b>								
Arm A	3.5	15.36	0.78	C	3.8	16.07	0.80	C
Arm B	1.2	12.76	0.55	B	1.0	14.22	0.52	B
Arm C	5.9	32.30	0.87	D	0.8	7.60	0.44	A
<b>2017-Base+Comm+Dev</b>								
Arm A	4.8	19.94	0.83	C	4.2	17.48	0.81	C
Arm B	1.3	13.88	0.58	B	1.3	16.05	0.57	C
Arm C	6.5	35.49	0.88	E	0.9	8.21	0.47	A

*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

<b>Title</b>	
<b>Location</b>	J2 Wentworth Rd / Putnoe Ln
<b>Site number</b>	
<b>Date</b>	24/07/2019
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	DESKTOP-2HPI2P9\Martin
<b>Description</b>	

### 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

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	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
D1	2017-Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2017-Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2017-Base+Comm	AM	ONE HOUR	07:45	09:15	15	✓
D4	2017-Base+Comm	PM	ONE HOUR	16:45	18:15	15	✓
D5	2017-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2017-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

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

# 2017-Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 81% of the total flow for the roundabout for one or more time segments]

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	Wentworth Dr / Putnoe Ln	Mini-roundabout		A, B, C	11.90	B

### Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

## Arms

### Arms

Arm	Name	Description
A	Wentworth Rd (E)	
B	Putnoe Rd	
C	Wentworth Rd (W)	

### Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.65	3.65	6.24	6.4	11.28	8.12	0.0	
B	3.75	3.75	6.47	1.9	12.13	7.68	0.0	
C	3.65	3.65	3.65	0.0	16.23	15.95	0.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.659	1127
B	0.638	923
C	0.655	996

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	2017-Base	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	650	100.000
B		ONE HOUR	✓	270	100.000
C		ONE HOUR	✓	541	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	296	354
	B	228	0	42
	C	478	63	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	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)
A	0.66	9.91	1.9	A	596	895
B	0.44	9.61	0.8	A	248	372
C	0.72	15.44	2.5	C	496	745

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	489	122	47	1096	0.446	486	527	0.0	0.8	5.918	A
B	203	51	265	754	0.270	202	268	0.0	0.4	6.550	A
C	407	102	170	885	0.460	404	296	0.0	0.9	7.562	A

#### 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)	Unsignalised level of service
A	584	146	56	1090	0.536	583	633	0.8	1.1	7.136	A
B	243	61	317	720	0.337	242	322	0.4	0.5	7.577	A
C	486	122	205	862	0.564	485	355	0.9	1.3	9.647	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)	Unsignalised level of service
A	716	179	69	1082	0.662	713	772	1.1	1.9	9.747	A
B	297	74	388	675	0.440	296	393	0.5	0.8	9.536	A
C	596	149	250	832	0.716	591	434	1.3	2.4	14.889	B

**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)	Unsignalised level of service
A	716	179	69	1081	0.662	716	777	1.9	1.9	9.909	A
B	297	74	390	674	0.441	297	395	0.8	0.8	9.614	A
C	596	149	251	832	0.716	595	436	2.4	2.5	15.436	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)	Unsignalised level of service
A	584	146	57	1089	0.536	587	640	1.9	1.2	7.272	A
B	243	61	320	719	0.338	244	325	0.8	0.5	7.652	A
C	486	122	206	861	0.565	491	358	2.5	1.4	10.000	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)	Unsignalised level of service
A	489	122	48	1096	0.447	491	534	1.2	0.8	6.012	A
B	203	51	267	752	0.270	204	271	0.5	0.4	6.619	A
C	407	102	172	883	0.461	409	299	1.4	0.9	7.747	A



# 2017-Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 82% of the total flow for the roundabout for one or more time segments]

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	Wentworth Dr / Putnoe Ln	Mini-roundabout		A, B, C	9.19	A

### Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2017-Base	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	676	100.000
B		ONE HOUR	✓	207	100.000
C		ONE HOUR	✓	291	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	190	486
	B	168	0	39
	C	260	31	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	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)
A	0.67	10.04	2.0	B	620	930
B	0.39	10.17	0.6	B	190	285
C	0.37	6.53	0.6	A	267	401

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	509	127	23	1112	0.458	506	320	0.0	0.8	5.943	A
B	156	39	363	691	0.226	155	165	0.0	0.3	6.698	A
C	219	55	126	914	0.240	218	393	0.0	0.3	5.198	A

#### 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)	Unsignalised level of service
A	608	152	28	1109	0.548	606	384	0.8	1.2	7.188	A
B	186	47	436	645	0.289	186	198	0.3	0.4	7.830	A
C	262	65	151	897	0.292	261	471	0.3	0.4	5.693	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)	Unsignalised level of service
A	744	186	34	1105	0.674	741	470	1.2	2.0	9.872	A
B	228	57	533	583	0.391	227	242	0.4	0.6	10.081	B
C	320	80	184	875	0.366	320	576	0.4	0.6	6.514	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)	Unsignalised level of service
A	744	186	34	1104	0.674	744	471	2.0	2.0	10.040	B
B	228	57	535	582	0.392	228	243	0.6	0.6	10.172	B
C	320	80	185	875	0.366	320	578	0.6	0.6	6.535	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)	Unsignalised level of service
A	608	152	28	1109	0.548	611	386	2.0	1.2	7.324	A
B	186	47	439	643	0.289	187	200	0.6	0.4	7.913	A
C	262	65	152	897	0.292	262	474	0.6	0.4	5.718	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)	Unsignalised level of service
A	509	127	23	1112	0.458	510	323	1.2	0.9	6.038	A
B	156	39	367	689	0.226	156	167	0.4	0.3	6.767	A
C	219	55	127	913	0.240	219	396	0.4	0.3	5.228	A

# 2017-Base+Comm, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 81% of the total flow for the roundabout for one or more time segments]

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	Wentworth Dr / Putnoe Ln	Mini-roundabout		A, B, C	21.15	C

### Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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
D3	2017-Base+Comm	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	762	100.000
B		ONE HOUR	✓	316	100.000
C		ONE HOUR	✓	633	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	347	415
	B	267	0	49
	C	559	74	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	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)
A	0.78	15.36	3.5	C	699	1049
B	0.55	12.76	1.2	B	290	435
C	0.87	32.30	5.9	D	581	871

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	574	143	55	1091	0.526	569	616	0.0	1.1	6.901	A
B	238	59	310	725	0.328	236	314	0.0	0.5	7.379	A
C	477	119	199	866	0.551	472	347	0.0	1.2	9.183	A

#### 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)	Unsignalised level of service
A	685	171	66	1083	0.632	683	739	1.1	1.7	8.998	A
B	284	71	372	686	0.414	283	377	0.5	0.7	8.988	A
C	569	142	239	839	0.678	566	416	1.2	2.1	13.208	B

#### 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)	Unsignalised level of service
A	839	210	80	1074	0.781	832	896	1.7	3.4	14.591	B
B	348	87	453	634	0.549	346	459	0.7	1.2	12.513	B
C	697	174	292	805	0.866	684	507	2.1	5.4	27.611	D

#### 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)	Unsignalised level of service
A	839	210	81	1073	0.782	839	908	3.4	3.5	15.356	C
B	348	87	457	632	0.551	348	463	1.2	1.2	12.765	B
C	697	174	294	804	0.867	695	511	5.4	5.9	32.298	D

#### 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)	Unsignalised level of service
A	685	171	68	1082	0.633	692	757	3.5	1.8	9.451	A
B	284	71	377	683	0.416	286	383	1.2	0.7	9.187	A
C	569	142	242	838	0.679	584	421	5.9	2.3	15.138	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)	Unsignalised level of service
A	574	143	56	1090	0.526	576	626	1.8	1.1	7.099	A
B	238	59	314	723	0.329	239	319	0.7	0.5	7.507	A
C	477	119	202	864	0.552	480	351	2.3	1.3	9.636	A

# 2017-Base+Comm, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 82% of the total flow for the roundabout for one or more time segments]

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	Wentworth Dr / Putnoe Ln	Mini-roundabout		A, B, C	13.65	B

### Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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
D4	2017-Base+Comm	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	797	100.000
B		ONE HOUR	✓	244	100.000
C		ONE HOUR	✓	342	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	225	572
	B	198	0	46
	C	306	36	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	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)
A	0.80	16.07	3.8	C	731	1097
B	0.52	14.22	1.0	B	224	336
C	0.44	7.60	0.8	A	314	471

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	600	150	27	1109	0.541	595	377	0.0	1.2	6.985	A
B	184	46	427	650	0.282	182	195	0.0	0.4	7.663	A
C	257	64	148	899	0.286	256	462	0.0	0.4	5.620	A

#### 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)	Unsignalised level of service
A	716	179	32	1106	0.648	714	452	1.2	1.8	9.181	A
B	219	55	512	596	0.368	219	234	0.4	0.6	9.516	A
C	307	77	177	880	0.349	307	554	0.4	0.5	6.321	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)	Unsignalised level of service
A	878	219	40	1101	0.797	870	553	1.8	3.7	15.205	C
B	269	67	624	525	0.512	267	285	0.6	1.0	13.867	B
C	377	94	217	854	0.441	376	675	0.5	0.8	7.556	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)	Unsignalised level of service
A	878	219	40	1101	0.797	877	555	3.7	3.8	16.069	C
B	269	67	629	522	0.515	269	287	1.0	1.0	14.218	B
C	377	94	218	853	0.441	377	680	0.8	0.8	7.600	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)	Unsignalised level of service
A	716	179	32	1106	0.648	724	455	3.8	1.9	9.671	A
B	219	55	520	592	0.371	221	237	1.0	0.6	9.764	A
C	307	77	179	879	0.350	308	561	0.8	0.5	6.367	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)	Unsignalised level of service
A	600	150	27	1109	0.541	603	381	1.9	1.2	7.190	A
B	184	46	433	647	0.284	184	197	0.6	0.4	7.796	A
C	257	64	150	898	0.287	258	467	0.5	0.4	5.670	A

# 2017-Base+Comm+Dev, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 81% of the total flow for the roundabout for one or more time segments]

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	Wentworth Dr / Putnoe Ln	Mini-roundabout		A, B, C	24.44	C

### Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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
D5	2017-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	813	100.000
B		ONE HOUR	✓	323	100.000
C		ONE HOUR	✓	639	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	376	437
	B	274	0	49
	C	565	74	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	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)
A	0.83	19.94	4.8	C	746	1119
B	0.58	13.88	1.3	B	296	445
C	0.88	35.49	6.5	E	586	880

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	612	153	55	1091	0.561	607	625	0.0	1.3	7.425	A
B	243	61	326	715	0.340	241	336	0.0	0.5	7.624	A
C	481	120	205	862	0.558	476	363	0.0	1.3	9.362	A

#### 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)	Unsignalised level of service
A	731	183	66	1083	0.675	728	750	1.3	2.0	10.112	B
B	290	73	391	673	0.431	289	403	0.5	0.8	9.421	A
C	574	144	246	835	0.688	571	435	1.3	2.1	13.652	B

#### 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)	Unsignalised level of service
A	895	224	80	1074	0.833	885	909	2.0	4.5	18.260	C
B	356	89	476	619	0.574	353	489	0.8	1.3	13.514	B
C	704	176	300	800	0.880	689	529	2.1	5.8	29.606	D

#### 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)	Unsignalised level of service
A	895	224	81	1074	0.834	894	921	4.5	4.8	19.944	C
B	356	89	481	616	0.577	355	495	1.3	1.3	13.885	B
C	704	176	302	799	0.881	701	535	5.8	6.5	35.485	E

#### 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)	Unsignalised level of service
A	731	183	68	1082	0.676	741	771	4.8	2.2	10.949	B
B	290	73	398	669	0.434	293	411	1.3	0.8	9.697	A
C	574	144	248	834	0.689	591	443	6.5	2.4	16.006	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)	Unsignalised level of service
A	612	153	56	1090	0.562	615	636	2.2	1.3	7.701	A
B	243	61	331	712	0.342	244	341	0.8	0.5	7.771	A
C	481	120	207	860	0.559	485	368	2.4	1.3	9.861	A

# 2017-Base+Comm+Dev, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 81% of the total flow for the roundabout for one or more time segments]

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	Wentworth Dr / Putnoe Ln	Mini-roundabout		A, B, C	14.90	B

### Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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
D6	2017-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	814	100.000
B		ONE HOUR	✓	266	100.000
C		ONE HOUR	✓	360	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	235	579
	B	220	0	46
	C	324	36	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	1
	B	0	0	0
	C	1	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)
A	0.81	17.48	4.2	C	747	1120
B	0.57	16.05	1.3	C	244	366
C	0.47	8.21	0.9	A	330	496

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	613	153	27	1109	0.552	608	407	0.0	1.2	7.156	A
B	200	50	432	647	0.309	198	202	0.0	0.4	7.994	A
C	271	68	164	889	0.305	269	467	0.0	0.4	5.836	A

#### 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)	Unsignalised level of service
A	732	183	32	1106	0.662	729	488	1.2	1.9	9.536	A
B	239	60	519	592	0.404	238	243	0.4	0.7	10.143	B
C	324	81	197	867	0.373	323	560	0.4	0.6	6.656	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)	Unsignalised level of service
A	896	224	40	1101	0.814	888	596	1.9	4.0	16.355	C
B	293	73	631	520	0.563	291	296	0.7	1.2	15.523	C
C	396	99	240	839	0.473	395	682	0.6	0.9	8.151	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)	Unsignalised level of service
A	896	224	40	1101	0.814	896	599	4.0	4.2	17.479	C
B	293	73	637	517	0.567	293	298	1.2	1.3	16.049	C
C	396	99	242	838	0.473	396	688	0.9	0.9	8.214	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)	Unsignalised level of service
A	732	183	32	1106	0.662	740	492	4.2	2.0	10.140	B
B	239	60	527	587	0.407	241	246	1.3	0.7	10.486	B
C	324	81	200	865	0.374	325	568	0.9	0.6	6.722	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)	Unsignalised level of service
A	613	153	27	1109	0.553	616	411	2.0	1.3	7.385	A
B	200	50	438	644	0.311	201	205	0.7	0.5	8.158	A
C	271	68	166	887	0.306	272	473	0.6	0.4	5.895	A

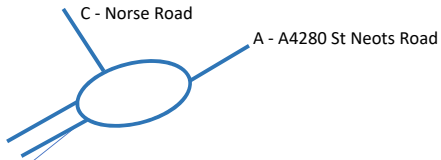


**Appendix Q**

J3 – A4280 St Neots Road / A4280 Goldington Road / Norse Road: Analysis – Input and Results



J3: Norse Rd / A4280 St Neots Road / A4280 Goldington Rd



B - A4280 Goldington Road

Background 2017

AM	A	B	C
A	0	529	672
B	552	4	154
C	714	141	0

Tempro 2017-2030

AM	A	B	C
A	1.170	1.170	1.170
B	1.170	1.170	1.170
C	1.170	1.170	1.170

Background 2030

AM	A	B	C
A	0	619	786
B	646	5	180
C	835	165	0

Committed Development

AM	A	B	C
A	0	0	0
B	0	0	0
C	2	0	0

Background 2030 + Committed

AM	A	B	C
A	0	619	787
B	646	5	180
C	837	165	0

Development

AM	A	B	C
A	0	0	13
B	0	0	0
C	54	0	0

Background 2030 + Development

AM	A	B	C
A	0	619	800
B	646	5	180
C	891	165	0

Background 2017

PM	A	B	C
A	0	594	763
B	489	5	291
C	467	157	0

Tempro 2017-2030

PM	A	B	C
A	1.176	1.176	1.176
B	1.176	1.176	1.176
C	1.176	1.176	1.176

Background 2030

PM	A	B	C
A	0	699	897
B	575	6	342
C	549	185	0

Committed Development

PM	A	B	C
A	0	0	1
B	0	0	0
C	1	0	0

Background 2030 + Committed

PM	A	B	C
A	0	699	899
B	575	6	342
C	550	185	0

Development

PM	A	B	C
A	0	0	41
B	0	0	0
C	18	0	0

Background 2030 + Development

PM	A	B	C
A	0	699	940
B	575	6	342
C	568	185	0

HGV%age

AM	A	B	C
A		0.95	1.34
B	1.09		0.00
C	1.40	2.84	

HGV%age

PM	A	B	C
A		0.34	0.92
B	1.64		0.34
C	0.43	3.82	

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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:** J3-St Neots\_Norse Rd.j9  
**Path:** C:\Users\Martin\OneDrive - Martin Andrews Consulting Ltd\Projects 200 - 299\248 - Salph End, Bedford\Reports\TA\Junction Analysis  
**Report generation date:** 25/07/2019 15:18:38

- »2017-Base, AM
- »2017-Base, PM
- »2030-Base+Comm, AM
- »2030-Base+Comm, PM
- »2030-Base+Comm+Dev, AM
- »2030-Base+Comm+Dev, PM

**Summary of junction performance**

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2017-Base</b>								
Arm A	2.9	7.89	0.74	A	5.2	12.90	0.84	B
Arm B	0.8	3.49	0.43	A	1.0	4.07	0.49	A
Arm C	1.6	6.31	0.62	A	0.8	4.17	0.44	A
<b>2030-Base+Comm</b>								
Arm A	6.7	16.24	0.88	C	31.4	63.38	1.00	F
Arm B	1.1	4.40	0.53	A	1.5	5.54	0.61	A
Arm C	3.1	10.33	0.76	B	1.2	5.24	0.54	A
<b>2030-Base+Comm+Dev</b>								
Arm A	7.7	18.53	0.89	C	63.8	112.37	1.06	F
Arm B	1.1	4.50	0.53	A	1.6	5.83	0.62	A
Arm C	5.0	15.33	0.84	C	1.3	5.56	0.56	A

*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

<b>Title</b>	J3
<b>Location</b>	St Neots _ Putnoe
<b>Site number</b>	
<b>Date</b>	24/07/2019
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	DESKTOP-2HPI2P9\Martin
<b>Description</b>	

### 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
D1	2017-Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2017-Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2030-Base+Comm	AM	ONE HOUR	07:45	09:15	15	✓
D4	2030-Base+Comm	PM	ONE HOUR	16:45	18:15	15	✓
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

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

# 2017-Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	St Neots _ Putnoe	Standard Roundabout		A, B, C	6.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
A	St Neots Rd	
B	Goldington Rd	
C	Norse Rd	

### 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
A	3.79	7.03	30.8	14.0	60.8	25.0	
B	7.82	7.91	0.1	14.7	60.8	34.0	
C	5.03	6.44	8.0	32.4	60.8	21.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.582	1876
B	0.648	2302
C	0.598	1887

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	2017-Base	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1201	100.000
B		ONE HOUR	✓	710	100.000
C		ONE HOUR	✓	855	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	529	672
	B	552	4	154
	C	714	141	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	1	3	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)
A	0.74	7.89	2.9	A	1102	1653
B	0.43	3.49	0.8	A	652	977
C	0.62	6.31	1.6	A	785	1177

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	904	226	109	1813	0.499	900	950	0.0	1.0	3.973	A
B	535	134	504	1975	0.271	533	505	0.0	0.4	2.515	A
C	644	161	417	1638	0.393	641	619	0.0	0.7	3.662	A

#### 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)	Unsignalised level of service
A	1080	270	130	1800	0.600	1078	1137	1.0	1.5	5.025	A
B	638	160	603	1911	0.334	638	605	0.4	0.5	2.849	A
C	769	192	499	1589	0.484	767	741	0.7	0.9	4.449	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)	Unsignalised level of service
A	1322	331	159	1783	0.741	1317	1391	1.5	2.8	7.722	A
B	782	195	737	1824	0.429	781	739	0.5	0.8	3.476	A
C	941	235	611	1522	0.619	939	906	0.9	1.6	6.247	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)	Unsignalised level of service
A	1322	331	160	1783	0.742	1322	1394	2.8	2.9	7.892	A
B	782	195	740	1822	0.429	782	742	0.8	0.8	3.487	A
C	941	235	612	1521	0.619	941	909	1.6	1.6	6.306	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)	Unsignalised level of service
A	1080	270	131	1800	0.600	1085	1141	2.9	1.5	5.132	A
B	638	160	607	1908	0.334	639	609	0.8	0.5	2.862	A
C	769	192	501	1588	0.484	771	746	1.6	1.0	4.496	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)	Unsignalised level of service
A	904	226	109	1812	0.499	906	955	1.5	1.0	4.029	A
B	535	134	507	1973	0.271	535	509	0.5	0.4	2.524	A
C	644	161	419	1637	0.393	645	623	1.0	0.7	3.692	A

# 2017-Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	St Neots _ Putnoe	Standard Roundabout		A, B, C	8.42	A

### 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	2017-Base	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1357	100.000
B		ONE HOUR	✓	785	100.000
C		ONE HOUR	✓	624	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	594	763
	B	489	5	291
	C	467	157	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	2	0	0
	C	0	4	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)
A	0.84	12.90	5.2	B	1245	1868
B	0.49	4.07	1.0	A	720	1080
C	0.44	4.17	0.8	A	573	859

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	1022	255	122	1805	0.566	1016	717	0.0	1.3	4.564	A
B	591	148	572	1931	0.306	589	566	0.0	0.4	2.709	A
C	470	117	371	1665	0.282	468	790	0.0	0.4	3.040	A

#### 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)	Unsignalised level of service
A	1220	305	145	1791	0.681	1217	859	1.3	2.1	6.271	A
B	706	176	684	1858	0.380	705	678	0.4	0.6	3.155	A
C	561	140	444	1622	0.346	560	945	0.4	0.5	3.432	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)	Unsignalised level of service
A	1494	374	178	1772	0.843	1483	1051	2.1	5.0	12.046	B
B	864	216	834	1762	0.491	863	827	0.6	1.0	4.039	A
C	687	172	543	1563	0.440	686	1153	0.5	0.8	4.152	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)	Unsignalised level of service
A	1494	374	178	1772	0.843	1493	1053	5.0	5.2	12.897	B
B	864	216	840	1758	0.492	864	832	1.0	1.0	4.075	A
C	687	172	544	1562	0.440	687	1160	0.8	0.8	4.165	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)	Unsignalised level of service
A	1220	305	146	1791	0.681	1232	861	5.2	2.2	6.611	A
B	706	176	693	1853	0.381	707	685	1.0	0.6	3.183	A
C	561	140	445	1621	0.346	562	955	0.8	0.5	3.446	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)	Unsignalised level of service
A	1022	255	122	1805	0.566	1025	721	2.2	1.3	4.668	A
B	591	148	576	1928	0.306	592	571	0.6	0.4	2.725	A
C	470	117	372	1665	0.282	470	796	0.5	0.4	3.053	A

# 2030-Base+Comm, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	St Neots _ Putnoe	Standard Roundabout		A, B, C	11.37	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
D3	2030-Base+Comm	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1406	100.000
B		ONE HOUR	✓	831	100.000
C		ONE HOUR	✓	1004	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	619	787
	B	646	5	180
	C	839	165	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	1	1
	B	1	0	0
	C	1	3	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)
A	0.88	16.24	6.7	C	1290	1935
B	0.53	4.40	1.1	A	763	1144
C	0.76	10.33	3.1	B	921	1382

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	1059	265	127	1802	0.587	1053	1113	0.0	1.4	4.825	A
B	626	156	589	1920	0.326	624	591	0.0	0.5	2.797	A
C	756	189	489	1595	0.474	752	724	0.0	0.9	4.323	A

#### 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)	Unsignalised level of service
A	1264	316	152	1787	0.707	1260	1333	1.4	2.4	6.857	A
B	747	187	705	1845	0.405	746	707	0.5	0.7	3.304	A
C	903	226	585	1538	0.587	901	867	0.9	1.4	5.724	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)	Unsignalised level of service
A	1548	387	186	1768	0.876	1532	1628	2.4	6.3	14.578	B
B	915	229	858	1746	0.524	913	861	0.7	1.1	4.351	A
C	1105	276	715	1459	0.757	1099	1056	1.4	3.0	9.972	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)	Unsignalised level of service
A	1548	387	187	1767	0.876	1547	1635	6.3	6.7	16.238	C
B	915	229	866	1741	0.526	915	868	1.1	1.1	4.395	A
C	1105	276	717	1459	0.758	1105	1064	3.0	3.1	10.325	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)	Unsignalised level of service
A	1264	316	154	1786	0.708	1281	1342	6.7	2.5	7.427	A
B	747	187	717	1837	0.407	749	718	1.1	0.7	3.342	A
C	903	226	587	1537	0.587	909	879	3.1	1.5	5.890	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)	Unsignalised level of service
A	1059	265	128	1801	0.588	1063	1120	2.5	1.5	4.958	A
B	626	156	595	1916	0.326	626	596	0.7	0.5	2.815	A
C	756	189	491	1594	0.474	758	731	1.5	0.9	4.388	A

# 2030-Base+Comm, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	St Neots _ Putnoe	Standard Roundabout		A, B, C	33.87	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
D4	2030-Base+Comm	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1599	100.000
B		ONE HOUR	✓	923	100.000
C		ONE HOUR	✓	735	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	699	900
	B	575	6	342
	C	550	185	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	1
	B	2	0	0
	C	0	4	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)
A	1.00	63.38	31.4	F	1467	2201
B	0.61	5.54	1.5	A	847	1270
C	0.54	5.24	1.2	A	674	1012

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	1204	301	143	1793	0.672	1196	844	0.0	2.0	5.994	A
B	695	174	673	1866	0.372	692	666	0.0	0.6	3.097	A
C	553	138	436	1627	0.340	551	930	0.0	0.5	3.385	A

#### 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)	Unsignalised level of service
A	1437	359	171	1776	0.809	1429	1010	2.0	4.0	10.211	B
B	830	207	805	1780	0.466	829	796	0.6	0.9	3.820	A
C	661	165	522	1575	0.419	660	1112	0.5	0.7	3.979	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)	Unsignalised level of service
A	1761	440	210	1754	1.004	1689	1236	4.0	21.9	37.107	E
B	1016	254	951	1686	0.603	1014	948	0.9	1.5	5.397	A
C	809	202	638	1506	0.537	808	1326	0.7	1.2	5.209	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)	Unsignalised level of service
A	1761	440	210	1754	1.004	1723	1239	21.9	31.4	63.380	F
B	1016	254	970	1674	0.607	1016	963	1.5	1.5	5.537	A
C	809	202	640	1505	0.538	809	1346	1.2	1.2	5.240	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)	Unsignalised level of service
A	1437	359	172	1776	0.809	1544	1014	31.4	4.6	21.863	C
B	830	207	869	1738	0.477	832	847	1.5	0.9	4.028	A
C	661	165	524	1574	0.420	662	1178	1.2	0.7	4.006	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)	Unsignalised level of service
A	1204	301	144	1792	0.672	1214	848	4.6	2.1	6.372	A
B	695	174	683	1859	0.374	696	675	0.9	0.6	3.136	A
C	553	138	438	1625	0.340	554	941	0.7	0.5	3.408	A

# 2030-Base+Comm+Dev, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	St Neots _ Putnoe	Standard Roundabout		A, B, C	14.02	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
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1433	100.000
B		ONE HOUR	✓	831	100.000
C		ONE HOUR	✓	1111	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	619	814
	B	646	5	180
	C	946	165	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	1	3	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)
A	0.89	18.53	7.7	C	1315	1972
B	0.53	4.50	1.1	A	763	1144
C	0.84	15.33	5.0	C	1019	1529

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	1079	270	127	1802	0.599	1073	1193	0.0	1.5	4.957	A
B	626	156	609	1907	0.328	624	591	0.0	0.5	2.826	A
C	836	209	489	1595	0.524	832	745	0.0	1.1	4.766	A

#### 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)	Unsignalised level of service
A	1288	322	152	1787	0.721	1284	1428	1.5	2.5	7.176	A
B	747	187	729	1829	0.408	746	707	0.5	0.7	3.351	A
C	999	250	585	1538	0.650	996	891	1.1	1.8	6.715	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)	Unsignalised level of service
A	1578	394	185	1768	0.892	1559	1741	2.5	7.2	16.156	C
B	915	229	886	1728	0.530	913	859	0.7	1.1	4.448	A
C	1223	306	715	1459	0.838	1211	1083	1.8	4.8	14.115	B

#### 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)	Unsignalised level of service
A	1578	394	187	1767	0.893	1576	1752	7.2	7.7	18.526	C
B	915	229	895	1722	0.531	915	868	1.1	1.1	4.499	A
C	1223	306	717	1459	0.839	1222	1093	4.8	5.0	15.329	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)	Unsignalised level of service
A	1288	322	155	1786	0.721	1308	1443	7.7	2.7	7.927	A
B	747	187	743	1820	0.410	749	720	1.1	0.7	3.393	A
C	999	250	587	1537	0.650	1011	905	5.0	1.9	7.119	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)	Unsignalised level of service
A	1079	270	128	1801	0.599	1083	1202	2.7	1.5	5.105	A
B	626	156	615	1903	0.329	626	596	0.7	0.5	2.847	A
C	836	209	491	1594	0.525	840	751	1.9	1.1	4.869	A

# 2030-Base+Comm+Dev, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	St Neots _ Putnoe	Standard Roundabout		A, B, C	58.82	F

### 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
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1681	100.000
B		ONE HOUR	✓	923	100.000
C		ONE HOUR	✓	772	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	699	982
	B	575	6	342
	C	587	185	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	2	0	0
	C	0	4	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)
A	1.06	112.37	63.8	F	1543	2314
B	0.62	5.83	1.6	A	847	1270
C	0.56	5.56	1.3	A	708	1063

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	1266	316	143	1793	0.706	1256	872	0.0	2.4	6.643	A
B	695	174	734	1826	0.381	692	666	0.0	0.6	3.205	A
C	581	145	436	1627	0.357	579	990	0.0	0.6	3.471	A

#### 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)	Unsignalised level of service
A	1511	378	171	1776	0.851	1500	1043	2.4	5.3	12.591	B
B	830	207	876	1734	0.478	829	795	0.6	0.9	4.016	A
C	694	174	522	1575	0.441	693	1183	0.6	0.8	4.126	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)	Unsignalised level of service
A	1851	463	210	1754	1.055	1721	1276	5.3	37.6	54.711	F
B	1016	254	1006	1650	0.616	1014	926	0.9	1.6	5.695	A
C	850	212	638	1506	0.564	848	1381	0.8	1.3	5.523	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)	Unsignalised level of service
A	1851	463	210	1754	1.055	1746	1279	37.6	63.8	112.370	F
B	1016	254	1020	1641	0.619	1016	936	1.6	1.6	5.826	A
C	850	212	640	1505	0.565	850	1396	1.3	1.3	5.564	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)	Unsignalised level of service
A	1511	378	172	1776	0.851	1735	1048	63.8	7.9	76.431	F
B	830	207	1014	1645	0.504	832	894	1.6	1.0	4.493	A
C	694	174	524	1574	0.441	696	1322	1.3	0.8	4.159	A

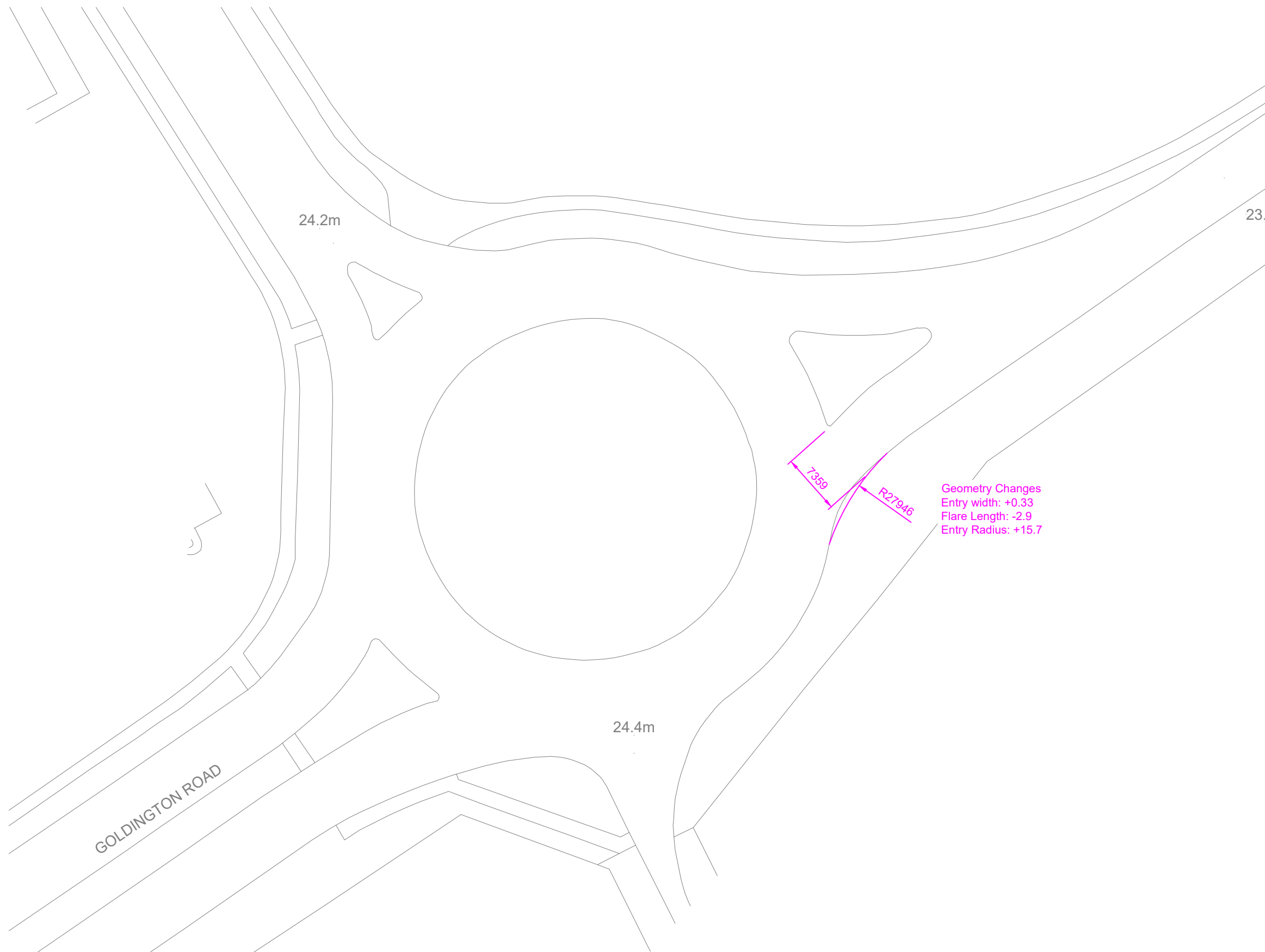
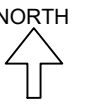
18:00 - 18:15

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)	Unsignalised level of service
A	1266	316	144	1792	0.706	1287	877	7.9	2.5	7.471	A
B	695	174	752	1814	0.383	697	679	1.0	0.6	3.263	A
C	581	145	438	1625	0.358	582	1010	0.8	0.6	3.496	A



**Appendix R**

J3 – Nil Detriment Improvements  
MAC drawing no. 248-TA20




**Notes**

- 1. Based on Ordnance Survey mapping. ©Crown Copyright and database rights 2019 OS 100019980

**Key**

— Nil Detriment Improvements

 T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd	<ul style="list-style-type: none"><li>• Transport Assessments</li><li>• Flood Risk Assessments</li><li>• Highway Advice</li><li>• Access Design</li><li>• Drainage Strategies</li><li>• Vehicle tracking</li></ul>	Client: Manor Oak Homes	Project: Land North of Hookhams Lane, Salph End	
		Title: J3 - Nil Detriment Improvements		Date: 25/07/19
				Drw: MJA
				Chk: MJA
Drawing No: 248-TA20		Revision: -	Scale: 1:500	
			Size: A3	



**Appendix S**

J3 – Nil Detriment: Analysis – Input and Results



Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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:** J3-St Neots\_Norse Rd-Nil Det.j9  
**Path:** C:\Users\Martin\OneDrive - Martin Andrews Consulting Ltd\Projects 200 - 299\248 - Salph End, Bedford\Reports\TA\Junction Analysis  
**Report generation date:** 25/07/2019 15:41:03

- »2030-Base+Comm+Dev, AM
- »2030-Base+Comm+Dev, PM

**Summary of junction performance**

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2030-Base+Comm+Dev								
Arm A	5.1	12.12	0.84	B	27.8	54.54	0.99	F
Arm B	1.1	4.50	0.53	A	1.7	6.10	0.63	A
Arm C	5.0	15.33	0.84	C	1.3	5.56	0.56	A

*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**

<b>Title</b>	J3
<b>Location</b>	St Neots _ Putnoe - Nil Det
<b>Site number</b>	
<b>Date</b>	24/07/2019
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	DESKTOP-2HPI2P9\Martin
<b>Description</b>	

**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
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

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

# 2030-Base+Comm+Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	St Neots _ Putnoe - Nil Det	Standard Roundabout		A, B, C	11.30	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
A	St Neots Rd	
B	Goldington Rd	
C	Norse Rd	

### 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
A	3.79	7.36	29.7	27.9	60.8	25.0	
B	7.82	7.91	0.1	14.7	60.8	34.0	
C	5.03	6.44	8.0	32.4	60.8	21.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.611	1990
B	0.648	2302
C	0.598	1887

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
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1433	100.000
B		ONE HOUR	✓	831	100.000
C		ONE HOUR	✓	1111	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	619	814
	B	646	5	180
	C	946	165	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	1	3	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)
A	0.84	12.12	5.1	B	1315	1972
B	0.53	4.50	1.1	A	763	1144
C	0.84	15.33	5.0	C	1019	1529

### Main Results for each time segment

#### 07:45 - 08:00

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)	Unsignalised level of service
A	1079	270	127	1912	0.564	1074	1193	0.0	1.3	4.318	A
B	626	156	610	1907	0.328	624	591	0.0	0.5	2.827	A
C	836	209	489	1595	0.524	832	745	0.0	1.1	4.766	A

#### 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)	Unsignalised level of service
A	1288	322	152	1897	0.679	1285	1428	1.3	2.1	5.923	A
B	747	187	730	1829	0.409	746	707	0.5	0.7	3.352	A
C	999	250	585	1538	0.650	996	892	1.1	1.8	6.715	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)	Unsignalised level of service
A	1578	394	185	1876	0.841	1566	1741	2.1	5.0	11.343	B
B	915	229	890	1725	0.530	913	862	0.7	1.1	4.460	A
C	1223	306	715	1460	0.838	1211	1088	1.8	4.8	14.115	B

**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)	Unsignalised level of service
A	1578	394	187	1875	0.841	1577	1752	5.0	5.1	12.122	B
B	915	229	896	1721	0.532	915	868	1.1	1.1	4.501	A
C	1223	306	717	1459	0.839	1222	1094	4.8	5.0	15.329	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)	Unsignalised level of service
A	1288	322	155	1895	0.680	1300	1443	5.1	2.2	6.236	A
B	747	187	738	1823	0.410	749	716	1.1	0.7	3.386	A
C	999	250	587	1537	0.650	1011	901	5.0	1.9	7.122	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)	Unsignalised level of service
A	1079	270	128	1911	0.564	1082	1202	2.2	1.3	4.413	A
B	626	156	615	1903	0.329	626	596	0.7	0.5	2.844	A
C	836	209	491	1594	0.525	840	750	1.9	1.1	4.869	A

# 2030-Base+Comm+Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	St Neots _ Putnoe - Nil Det	Standard Roundabout		A, B, C	30.10	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
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1681	100.000
B		ONE HOUR	✓	923	100.000
C		ONE HOUR	✓	772	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	699	982
	B	575	6	342
	C	587	185	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	1
	B	2	0	0
	C	0	4	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)
A	0.99	54.54	27.8	F	1543	2314
B	0.63	6.10	1.7	A	847	1270
C	0.56	5.56	1.3	A	708	1063

### Main Results for each time segment

#### 16:45 - 17:00

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)	Unsignalised level of service
A	1266	316	143	1902	0.665	1258	872	0.0	2.0	5.559	A
B	695	174	735	1826	0.381	692	666	0.0	0.6	3.206	A
C	581	145	436	1627	0.357	579	991	0.0	0.6	3.471	A

#### 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)	Unsignalised level of service
A	1511	378	171	1885	0.802	1504	1043	2.0	3.9	9.317	A
B	830	207	878	1733	0.479	829	797	0.6	0.9	4.023	A
C	694	174	522	1575	0.441	693	1185	0.6	0.8	4.126	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)	Unsignalised level of service
A	1851	463	210	1862	0.994	1785	1276	3.9	20.2	33.219	D
B	1016	254	1043	1626	0.625	1013	952	0.9	1.7	5.915	A
C	850	212	638	1506	0.564	848	1418	0.8	1.3	5.522	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)	Unsignalised level of service
A	1851	463	210	1861	0.994	1820	1279	20.2	27.8	54.543	F
B	1016	254	1063	1613	0.630	1016	967	1.7	1.7	6.099	A
C	850	212	640	1505	0.565	850	1440	1.3	1.3	5.564	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)	Unsignalised level of service
A	1511	378	172	1885	0.802	1605	1048	27.8	4.3	16.955	C
B	830	207	938	1694	0.490	833	840	1.7	1.0	4.241	A
C	694	174	524	1574	0.441	696	1246	1.3	0.8	4.160	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)	Unsignalised level of service
A	1266	316	144	1902	0.665	1275	876	4.3	2.0	5.862	A
B	695	174	745	1819	0.382	696	674	1.0	0.6	3.245	A
C	581	145	438	1625	0.358	582	1003	0.8	0.6	3.498	A

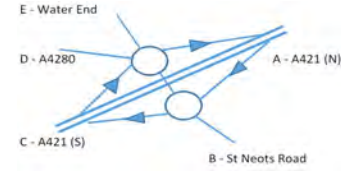




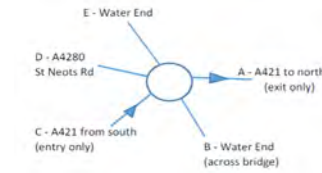
**Appendix T**

J4 – A421 / St Neots Road / A4280: Analysis – Input and Results

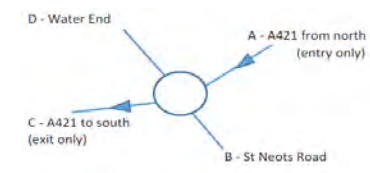
J4: A421 (N) / St Neots Rd / A421 (S) / A4280



J4: Roundabout 1 - North



J4: Roundabout 1 - South



Roundabout 1

Background 2017					
AM	A	B	C	D	E
A					
B	54			492	24
C		126		637	21
D	280	979			13
E	13	80		75	

Background 2017					
PM	A	B	C	D	E
A					
B	28			524	47
C	0	388		801	143
D	194	735		0	19
E	9	34		39	

Tempro 2017-2030					
AM	A	B	C	D	E
A	1.170	1.170	1.170	1.170	1.170
B	1.170	1.170	1.170	1.170	1.170
C	1.170	1.170	1.170	1.170	1.170
D	1.170	1.170	1.170	1.170	1.170
E	1.170	1.170	1.170	1.170	1.170

Tempro 2017-2030					
PM	A	B	C	D	E
A	1.176	1.176	1.176	1.176	1.176
B	1.176	1.176	1.176	1.176	1.176
C	1.176	1.176	1.176	1.176	1.176
D	1.176	1.176	1.176	1.176	1.176
E	1.176	1.176	1.176	1.176	1.176

Background 2030					
AM	A	B	C	D	E
A	0	0	0	0	0
B	63	0	0	576	28
C	0	147	0	745	25
D	328	1145	0	0	15
E	15	94	0	88	0

Background 2030					
PM	A	B	C	D	E
A	0	0	0	0	0
B	33	0	0	616	55
C	0	456	0	942	168
D	228	864	0	0	22
E	11	40	0	46	0

Committed Development					
AM	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	1	1	0	0	0
E	0	0	0	0	0

Committed Development					
PM	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	1	0
C	0	0	0	1	0
D	0	0	0	0	0
E	0	0	0	0	0

Background 2030 + Committed					
AM	A	B	C	D	E
A	0	0	0	0	0
B	63	0	0	576	28
C	1	149	0	745	25
D	328	1145	0	0	15
E	15	94	0	88	0

Background 2030 + Committed					
PM	A	B	C	D	E
A	0	0	0	1	0
B	33	0	0	617	55
C	0	457	0	942	168
D	228	864	0	0	22
E	11	40	0	46	0

Development					
AM	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	6	6
C	0	0	0	7	7
D	16	38	0	0	0
E	16	38	0	0	0

Development					
PM	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	19	19
C	0	0	0	22	22
D	5	13	0	0	0
E	5	13	0	0	0

Background 2030 + Development					
AM	A	B	C	D	E
A	0	0	0	0	0
B	63	0	0	582	34
C	1	149	0	753	32
D	343	1183	0	0	15
E	31	131	0	88	0

Background 2030 + Development					
PM	A	B	C	D	E
A	0	0	0	1	0
B	33	0	0	636	74
C	0	457	0	964	190
D	233	877	0	0	22
E	16	53	0	46	0

Roundabout 2

Background 2017				
PM	A	B	C	D
A				300
B			184	270
C				
D		352	833	

Background 2017				
PM	A	B	C	D
A		2		368
B			114	231
C				
D		631	526	

Tempro 2017-2030				
AM	A	B	C	D
A	1.170	1.170	1.170	1.170
B	1.170	1.170	1.170	1.170
C	1.170	1.170	1.170	1.170
D	1.170	1.170	1.170	1.170

Tempro 2017-2030				
PM	A	B	C	D
A	1.176	1.176	1.176	1.176
B	1.176	1.176	1.176	1.176
C	1.176	1.176	1.176	1.176
D	1.176	1.176	1.176	1.176

Background 2030				
AM	A	B	C	D
A	0	0	0	351
B	0	0	215	316
C	0	0	0	0
D	0	412	975	0
E	0	0	0	0

Background 2030				
PM	A	B	C	D
A	0	2	0	433
B	0	0	134	272
C	0	0	0	0
D	0	742	619	0
E	0	0	0	0

Committed Development				
AM	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	1	0

Committed Development				
PM	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	1	0

Background 2030 + Committed				
AM	A	B	C	D
A	0	0	0	351
B	0	0	215	316
C	0	0	1	0
D	0	412	975	0

Background 2030 + Committed				
PM	A	B	C	D
A	0	2	0	433
B	0	0	134	272
C	0	0	1	0
D	0	742	619	0

Development				
AM	A	B	C	D
A	0	0	0	4
B	0	0	0	2
C	0	0	0	0
D	0	9	29	0

Development				
PM	A	B	C	D
A	0	0	0	12
B	0	0	0	7
C	0	0	0	0
D	0	3	10	0

Background 2030 + Development				
AM	A	B	C	D
A	0	0	0	355
B	0	0	215	318
C	0	0	1	0
D	0	420	1004	0

Background 2030 + Development				
PM	A	B	C	D
A	0	2	0	445
B	0	0	134	278
C	0	0	1	0
D	0	745	628	0

HGV %age

AM	A	B	C	D	E
A					
B				1.6	0.0
C	0.0	0.0		0.8	0.0
D	1.1	1.3			7.7
E	0.0	1.4		0.0	

HGV %age

PM	A	B	C	D
A		0.0	0.0	0.0
B			2.7	0.5
C				
D		2.7	1.3	

HGV %age

PM	A	B	C	D	E
A					
B				0.7	0.0
C	0.0	0.0		0.7	1.4
D	1.5	1.1			0.0
E	0.1	0.0		0.0	

HGV %age

PM	A	B	C	D
A		0.0	0.0	0.0
B			0.9	1.1
C				
D		0.9	0.6	

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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:** J4 A421 (N) \_ St Neots Rd \_ A421 (S) \_ A4280.j9  
**Path:** C:\Users\Martin\OneDrive - Martin Andrews Consulting Ltd\Projects 200 - 299\248 - Salph End, Bedford\Reports\TA\Junction Analysis  
**Report generation date:** 25/07/2019 13:55:27

- »2017-Base, AM
- »2017-Base, PM
- »2030-Base+Comm, AM
- »2030-Base+Comm, PM
- »2030-Base+Comm+Dev, AM
- »2030-Base+Comm+Dev, PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2017-Base</b>								
Junction J4-1 - Arm 1-B	0.3	1.95	0.25	A	0.4	1.93	0.26	A
Junction J4-1 - Arm 1-C	0.5	1.91	0.31	A	1.1	2.79	0.53	A
Junction J4-1 - Arm 1-D	2.6	6.67	0.72	A	1.6	5.44	0.61	A
Junction J4-1 - Arm 1-E	0.3	6.18	0.24	A	0.1	4.94	0.11	A
Junction J4-2 - Arm 2-A	0.3	3.02	0.22	A	0.4	3.16	0.26	A
Junction J4-2 - Arm 2-B	0.8	6.12	0.46	A	0.4	4.09	0.30	A
Junction J4-2 - Arm 2-D	1.1	3.15	0.53	A	1.1	3.04	0.52	A
<b>2030-Base+Comm</b>								
Junction J4-1 - Arm 1-B	0.4	2.08	0.30	A	0.4	2.07	0.31	A
Junction J4-1 - Arm 1-C	0.6	2.20	0.38	A	1.8	3.86	0.65	A
Junction J4-1 - Arm 1-D	5.6	12.78	0.85	B	2.9	8.73	0.75	A
Junction J4-1 - Arm 1-E	0.5	8.71	0.34	A	0.2	6.20	0.15	A
Junction J4-2 - Arm 2-A	0.4	3.74	0.29	A	0.5	4.03	0.35	A
Junction J4-2 - Arm 2-B	1.6	9.81	0.61	A	0.6	5.14	0.39	A
Junction J4-2 - Arm 2-D	1.6	3.90	0.62	A	1.6	3.74	0.61	A
<b>2030-Base+Comm+Dev</b>								
Junction J4-1 - Arm 1-B	0.4	2.10	0.30	A	0.5	2.12	0.33	A
Junction J4-1 - Arm 1-C	0.6	2.23	0.39	A	2.1	4.21	0.67	A
Junction J4-1 - Arm 1-D	7.4	16.40	0.89	C	3.3	9.82	0.77	A
Junction J4-1 - Arm 1-E	0.8	11.01	0.46	B	0.2	6.54	0.19	A
Junction J4-2 - Arm 2-A	0.4	4.04	0.31	A	0.6	4.26	0.37	A
Junction J4-2 - Arm 2-B	1.8	11.40	0.65	B	0.7	5.50	0.41	A
Junction J4-2 - Arm 2-D	1.9	4.27	0.65	A	1.6	3.85	0.62	A

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	
Location	
Site number	
Date	24/07/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DESKTOP-2HPI2P9\Martin
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	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
D1	2017-Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2017-Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2030-Base+Comm	AM	ONE HOUR	07:45	09:15	15	✓
D4	2030-Base+Comm	PM	ONE HOUR	16:45	18:15	15	✓
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

## Analysis Set Details

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

# 2017-Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Junction J4-1 - Arm 1-C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Junction J4-1 - Arm 1-D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4-1	North roundabout	Standard Roundabout		1-A, 1-B, 1-C, 1-D, 1-E	4.34	A
J4-2	South roundabout	Standard Roundabout		2-A, 2-B, 2-C, 2-D	3.83	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Junction	Arm	Name	Description
J4-1	1-A	A421 - Exit Only	
	1-B	Water End - Bridge	
	1-C	A421 (S)	
	1-D	A4280 St Neots Road	
	1-E	Water End	
J4-2	2-A	A421 (N)	
	2-B	St Neots Road	
	2-C	A421 (S) Exit only	
	2-D	Water End	

### Roundabout Geometry

Junction	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
J4-1	1-A							✓
	1-B	7.28	8.84	8.8	30.0	68.8	30.0	
	1-C	7.53	11.85	30.3	20.4	68.8	19.0	
	1-D	3.85	8.01	33.5	23.2	68.8	29.0	
	1-E	3.38	6.52	9.1	40.3	68.8	18.0	
J4-2	2-A	7.05	8.64	9.7	39.3	49.9	27.0	
	2-B	3.67	9.05	15.1	40.2	49.9	31.0	
	2-C							✓
	2-D	7.31	8.12	7.2	37.6	49.9	28.0	

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
J4-1	1-A		
	1-B	0.650	2548
	1-C	0.775	3305
	1-D	0.575	2090
	1-E	0.507	1574
J4-2	2-A	0.777	2537
	2-B	0.655	1913
	2-C		
	2-D	0.763	2467

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	2017-Base	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
J4-1	1-A					
	1-B		ONE HOUR	✓	570	100.000
	1-C		ONE HOUR	✓	784	100.000
	1-D		ONE HOUR	✓	1272	100.000
	1-E		ONE HOUR	✓	168	100.000
J4-2	2-A		ONE HOUR	✓	300	100.000
	2-B		ONE HOUR	✓	454	100.000
	2-C					
	2-D		ONE HOUR	✓	1185	100.000

## Origin-Destination Data

### Demand (PCU/hr)

Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	54	0	0	492	24
	1-C	0	126	0	637	21
	1-D	280	979	0	0	13
	1-E	13	80	0	75	0

### Demand (PCU/hr)

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	300
	2-B	0	0	184	270
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	352	833	0

## Vehicle Mix

### Heavy Vehicle Percentages

#### Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	0	0	0	2	0
	1-C	0	0	0	1	0
	1-D	1	1	0	0	8
	1-E	0	1	0	0	0

### Heavy Vehicle Percentages

#### Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	0
	2-B	0	0	3	1
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	3	1	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
J4-1	1-A						
	1-B	0.25	1.95	0.3	A	523	785
	1-C	0.31	1.91	0.5	A	719	1079
	1-D	0.72	6.67	2.6	A	1167	1751
	1-E	0.24	6.18	0.3	A	154	231
J4-2	2-A	0.22	3.02	0.3	A	275	413
	2-B	0.46	6.12	0.8	A	417	625
	2-C						
	2-D	0.53	3.15	1.1	A	1087	1631

### Main Results for each time segment

#### 07:45 - 08:00

Junction	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)	Unsignalised level of service
J4-1	1-A			945				260				
	1-B	429	107	56	2512	0.171	428	889	0.0	0.2	1.751	A
	1-C	590	148	485	2929	0.202	589	0	0.0	0.3	1.548	A
	1-D	958	239	169	1992	0.481	954	905	0.0	0.9	3.499	A
	1-E	126	32	1079	1027	0.123	126	44	0.0	0.1	4.019	A
J4-2	2-A	226	56	890	1845	0.122	225	0	0.0	0.1	2.222	A
	2-B	342	85	851	1356	0.252	340	264	0.0	0.3	3.590	A
	2-C			428				763				
	2-D	892	223	0	2467	0.362	890	428	0.0	0.6	2.319	A

**08:00 - 08:15**

Junction	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)	Unsignalised level of service
J4-1	1-A			1131				312				
	1-B	512	128	67	2505	0.205	512	1064	0.2	0.3	1.831	A
	1-C	705	176	580	2855	0.247	704	0	0.3	0.3	1.683	A
	1-D	1144	286	202	1973	0.579	1142	1082	0.9	1.4	4.375	A
	1-E	151	38	1292	919	0.164	151	52	0.1	0.2	4.714	A
J4-2	2-A	270	67	1065	1709	0.158	270	0	0.1	0.2	2.500	A
	2-B	408	102	1018	1246	0.328	408	316	0.3	0.5	4.349	A
	2-C			512				913				
	2-D	1065	266	0	2467	0.432	1065	512	0.6	0.8	2.609	A

**08:15 - 08:30**

Junction	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)	Unsignalised level of service
J4-1	1-A			1383				381				
	1-B	628	157	82	2495	0.252	627	1301	0.3	0.3	1.954	A
	1-C	863	216	710	2755	0.313	863	0	0.3	0.5	1.914	A
	1-D	1400	350	248	1947	0.719	1396	1325	1.4	2.5	6.560	A
	1-E	185	46	1580	773	0.239	185	64	0.2	0.3	6.148	A
J4-2	2-A	330	83	1303	1524	0.217	330	0	0.2	0.3	3.015	A
	2-B	500	125	1246	1097	0.456	498	387	0.5	0.8	6.089	A
	2-C			626				1118				
	2-D	1305	326	0	2467	0.529	1303	626	0.8	1.1	3.142	A

**08:30 - 08:45**

Junction	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)	Unsignalised level of service
J4-1	1-A			1387				382				
	1-B	628	157	83	2495	0.252	628	1305	0.3	0.3	1.954	A
	1-C	863	216	710	2754	0.313	863	0	0.5	0.5	1.915	A
	1-D	1400	350	248	1947	0.719	1400	1326	2.5	2.6	6.665	A
	1-E	185	46	1584	771	0.240	185	64	0.3	0.3	6.182	A
J4-2	2-A	330	83	1305	1523	0.217	330	0	0.3	0.3	3.018	A
	2-B	500	125	1247	1096	0.456	500	388	0.8	0.8	6.125	A
	2-C			628				1120				
	2-D	1305	326	0	2467	0.529	1305	628	1.1	1.1	3.150	A

**08:45 - 09:00**

Junction	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)	Unsignalised level of service
J4-1	1-A			1137				313				
	1-B	512	128	68	2504	0.205	513	1069	0.3	0.3	1.834	A
	1-C	705	176	580	2855	0.247	705	0	0.5	0.3	1.687	A
	1-D	1144	286	202	1973	0.580	1148	1083	2.6	1.4	4.445	A
	1-E	151	38	1298	916	0.165	151	52	0.3	0.2	4.742	A
J4-2	2-A	270	67	1067	1708	0.158	270	0	0.3	0.2	2.506	A
	2-B	408	102	1020	1245	0.328	410	317	0.8	0.5	4.378	A
	2-C			514				916				
	2-D	1065	266	0	2467	0.432	1067	514	1.1	0.8	2.617	A



09:00 - 09:15

Junction	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)	Unsignalised level of service
J4-1	1-A			950				262				
	1-B	429	107	57	2512	0.171	429	894	0.3	0.2	1.752	A
	1-C	590	148	486	2928	0.202	591	0	0.3	0.3	1.549	A
	1-D	958	239	169	1992	0.481	959	907	1.4	0.9	3.540	A
	1-E	126	32	1085	1024	0.124	127	44	0.2	0.1	4.041	A
J4-2	2-A	226	56	893	1843	0.123	226	0	0.2	0.1	2.226	A
	2-B	342	85	854	1354	0.252	342	265	0.5	0.3	3.610	A
	2-C			430				766				
	2-D	892	223	0	2467	0.362	893	430	0.8	0.6	2.329	A

# 2017-Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Junction J4-1 - Arm 1-C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Junction J4-1 - Arm 1-D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4-1	North roundabout	Standard Roundabout		1-A, 1-B, 1-C, 1-D, 1-E	3.53	A
J4-2	South roundabout	Standard Roundabout		2-A, 2-B, 2-C, 2-D	3.26	A

### 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	2017-Base	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
J4-1	1-A					
	1-B		ONE HOUR	✓	599	100.000
	1-C		ONE HOUR	✓	1332	100.000
	1-D		ONE HOUR	✓	948	100.000
	1-E		ONE HOUR	✓	82	100.000
J4-2	2-A		ONE HOUR	✓	370	100.000
	2-B		ONE HOUR	✓	345	100.000
	2-C					
	2-D		ONE HOUR	✓	1157	100.000

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	28	0	0	524	47
	1-C	0	388	0	801	143
	1-D	194	735	0	0	19
	1-E	9	34	0	39	0

**Demand (PCU/hr)**

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	2	0	368
	2-B	0	0	114	231
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	631	526	0

## Vehicle Mix

**Heavy Vehicle Percentages**

Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	0	0	0	0	0
	1-C	0	0	0	1	0
	1-D	0	0	0	1	1
	1-E	2	1	0	0	0

**Heavy Vehicle Percentages**

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	0
	2-B	0	0	1	1
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	1	1	0

## Results

**Results Summary for whole modelled period**

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
J4-1	1-A						
	1-B	0.26	1.93	0.4	A	550	824
	1-C	0.53	2.79	1.1	A	1222	1833
	1-D	0.61	5.44	1.6	A	870	1305
	1-E	0.11	4.94	0.1	A	75	113
J4-2	2-A	0.26	3.16	0.4	A	340	509
	2-B	0.30	4.09	0.4	A	317	475
	2-C						
	2-D	0.52	3.04	1.1	A	1062	1593

### Main Results for each time segment

#### 16:45 - 17:00

Junction	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)	Unsignalised level of service
J4-1	1-A			898				173				
	1-B	451	113	29	2529	0.178	450	868	0.0	0.2	1.731	A
	1-C	1003	251	479	2933	0.342	1001	0	0.0	0.5	1.868	A
	1-D	714	178	455	1828	0.390	711	1025	0.0	0.6	3.218	A
	1-E	62	15	1009	1062	0.058	61	157	0.0	0.1	3.618	A
J4-2	2-A	279	70	869	1861	0.150	278	0	0.0	0.2	2.272	A
	2-B	260	65	671	1473	0.176	259	475	0.0	0.2	2.994	A
	2-C			450				481				
	2-D	871	218	0	2467	0.353	869	450	0.0	0.5	2.267	A

#### 17:00 - 17:15

Junction	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)	Unsignalised level of service
J4-1	1-A			1074				207				
	1-B	538	135	35	2526	0.213	538	1039	0.2	0.3	1.810	A
	1-C	1197	299	573	2860	0.419	1197	0	0.5	0.7	2.171	A
	1-D	852	213	544	1776	0.480	851	1225	0.6	0.9	3.886	A
	1-E	74	18	1208	962	0.077	74	188	0.1	0.1	4.078	A
J4-2	2-A	333	83	1039	1729	0.192	332	0	0.2	0.2	2.577	A
	2-B	310	78	803	1387	0.224	310	569	0.2	0.3	3.377	A
	2-C			538				575				
	2-D	1040	260	0	2467	0.422	1039	538	0.5	0.7	2.540	A

#### 17:15 - 17:30

Junction	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)	Unsignalised level of service
J4-1	1-A			1314				254				
	1-B	660	165	43	2520	0.262	659	1271	0.3	0.4	1.934	A
	1-C	1467	367	702	2760	0.531	1465	0	0.7	1.1	2.786	A
	1-D	1044	261	667	1706	0.612	1041	1500	0.9	1.6	5.394	A
	1-E	90	23	1478	825	0.109	90	230	0.1	0.1	4.927	A
J4-2	2-A	407	102	1273	1548	0.263	407	0	0.2	0.4	3.153	A
	2-B	380	95	983	1269	0.299	379	696	0.3	0.4	4.086	A
	2-C			659				704				
	2-D	1274	318	0	2467	0.516	1273	659	0.7	1.1	3.035	A

#### 17:30 - 17:45

Junction	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)	Unsignalised level of service
J4-1	1-A			1317				254				
	1-B	660	165	43	2520	0.262	660	1274	0.4	0.4	1.934	A
	1-C	1467	367	702	2760	0.531	1467	0	1.1	1.1	2.793	A
	1-D	1044	261	667	1706	0.612	1044	1502	1.6	1.6	5.438	A
	1-E	90	23	1481	823	0.110	90	230	0.1	0.1	4.939	A
J4-2	2-A	407	102	1274	1547	0.263	407	0	0.4	0.4	3.159	A
	2-B	380	95	984	1268	0.300	380	697	0.4	0.4	4.094	A
	2-C			660				705				
	2-D	1274	318	0	2467	0.516	1274	660	1.1	1.1	3.040	A

## 17:45 - 18:00

Junction	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)	Unsignalised level of service
J4-1	1-A			1078				208				
	1-B	538	135	35	2525	0.213	539	1043	0.4	0.3	1.814	A
	1-C	1197	299	574	2860	0.419	1199	0	1.1	0.7	2.180	A
	1-D	852	213	545	1776	0.480	855	1228	1.6	0.9	3.919	A
	1-E	74	18	1212	960	0.077	74	188	0.1	0.1	4.091	A
J4-2	2-A	333	83	1041	1727	0.193	333	0	0.4	0.2	2.582	A
	2-B	310	78	805	1386	0.224	311	570	0.4	0.3	3.386	A
	2-C			539				576				
	2-D	1040	260	0	2467	0.422	1041	539	1.1	0.7	2.548	A

## 18:00 - 18:15

Junction	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)	Unsignalised level of service
J4-1	1-A			902				174				
	1-B	451	113	29	2529	0.178	451	872	0.3	0.2	1.731	A
	1-C	1003	251	481	2932	0.342	1004	0	0.7	0.5	1.874	A
	1-D	714	178	457	1827	0.391	715	1028	0.9	0.6	3.242	A
	1-E	62	15	1014	1060	0.058	62	157	0.1	0.1	3.627	A
J4-2	2-A	279	70	872	1859	0.150	279	0	0.2	0.2	2.279	A
	2-B	260	65	674	1472	0.176	260	477	0.3	0.2	3.004	A
	2-C			451				482				
	2-D	871	218	0	2467	0.353	872	451	0.7	0.6	2.276	A

# 2030-Base+Comm, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Junction J4-1 - Arm 1-C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Junction J4-1 - Arm 1-D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4-1	North roundabout	Standard Roundabout		1-A, 1-B, 1-C, 1-D, 1-E	7.38	A
J4-2	South roundabout	Standard Roundabout		2-A, 2-B, 2-C, 2-D	5.25	A

### 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
D3	2030-Base+Comm	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
J4-1	1-A					
	1-B		ONE HOUR	✓	667	100.000
	1-C		ONE HOUR	✓	921	100.000
	1-D		ONE HOUR	✓	1488	100.000
	1-E		ONE HOUR	✓	197	100.000
J4-2	2-A		ONE HOUR	✓	351	100.000
	2-B		ONE HOUR	✓	531	100.000
	2-C					
	2-D		ONE HOUR	✓	1387	100.000

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	63	0	0	576	28
	1-C	1	150	0	745	25
	1-D	328	1145	0	0	15
	1-E	15	94	0	88	0

**Demand (PCU/hr)**

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	351
	2-B	0	0	215	316
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	412	975	0

## Vehicle Mix

**Heavy Vehicle Percentages**

Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	0	0	0	2	0
	1-C	0	0	0	1	0
	1-D	1	1	0	0	8
	1-E	0	1	0	0	0

**Heavy Vehicle Percentages**

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	0
	2-B	0	0	3	1
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	3	1	0

## Results

**Results Summary for whole modelled period**

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
J4-1	1-A						
	1-B	0.30	2.08	0.4	A	612	918
	1-C	0.38	2.20	0.6	A	845	1268
	1-D	0.85	12.78	5.6	B	1365	2048
	1-E	0.34	8.71	0.5	A	181	271
J4-2	2-A	0.29	3.74	0.4	A	322	483
	2-B	0.61	9.81	1.6	A	487	731
	2-C						
	2-D	0.62	3.90	1.6	A	1273	1909

## Main Results for each time segment

### 07:45 - 08:00

Junction	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)	Unsignalised level of service
J4-1	1-A			1107				305				
	1-B	502	126	66	2505	0.200	501	1041	0.0	0.3	1.820	A
	1-C	693	173	567	2865	0.242	692	0	0.0	0.3	1.667	A
	1-D	1120	280	201	1974	0.567	1115	1059	0.0	1.3	4.220	A
	1-E	148	37	1265	933	0.159	148	51	0.0	0.2	4.609	A
J4-2	2-A	264	66	1041	1727	0.153	264	0	0.0	0.2	2.457	A
	2-B	400	100	995	1261	0.317	398	309	0.0	0.5	4.221	A
	2-C			500				893				
	2-D	1044	261	0	2467	0.423	1041	500	0.0	0.7	2.563	A

### 08:00 - 08:15

Junction	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)	Unsignalised level of service
J4-1	1-A			1325				365				
	1-B	600	150	79	2497	0.240	599	1246	0.3	0.3	1.923	A
	1-C	828	207	678	2779	0.298	828	0	0.3	0.4	1.856	A
	1-D	1338	334	240	1952	0.685	1334	1266	1.3	2.2	5.874	A
	1-E	177	44	1513	807	0.219	177	61	0.2	0.3	5.747	A
J4-2	2-A	316	79	1246	1569	0.201	315	0	0.2	0.3	2.872	A
	2-B	477	119	1191	1133	0.421	476	370	0.5	0.7	5.551	A
	2-C			599				1069				
	2-D	1247	312	0	2467	0.505	1246	599	0.7	1.0	2.996	A

### 08:15 - 08:30

Junction	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)	Unsignalised level of service
J4-1	1-A			1615				445				
	1-B	734	184	96	2486	0.295	734	1519	0.3	0.4	2.083	A
	1-C	1014	254	830	2661	0.381	1013	0	0.4	0.6	2.197	A
	1-D	1638	410	294	1921	0.853	1625	1550	2.2	5.4	11.859	B
	1-E	217	54	1844	639	0.339	216	75	0.3	0.5	8.545	A
J4-2	2-A	386	97	1525	1352	0.286	386	0	0.3	0.4	3.725	A
	2-B	585	146	1458	958	0.610	581	453	0.7	1.5	9.612	A
	2-C			732				1307				
	2-D	1527	382	0	2467	0.619	1525	732	1.0	1.6	3.876	A

### 08:30 - 08:45

Junction	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)	Unsignalised level of service
J4-1	1-A			1625				448				
	1-B	734	184	97	2485	0.295	734	1529	0.4	0.4	2.084	A
	1-C	1014	254	831	2660	0.381	1014	0	0.6	0.6	2.200	A
	1-D	1638	410	294	1921	0.853	1637	1551	5.4	5.6	12.777	B
	1-E	217	54	1857	633	0.343	217	75	0.5	0.5	8.706	A
J4-2	2-A	386	97	1527	1350	0.286	386	0	0.4	0.4	3.735	A
	2-B	585	146	1460	956	0.611	585	454	1.5	1.6	9.807	A
	2-C			734				1310				
	2-D	1527	382	0	2467	0.619	1527	734	1.6	1.6	3.896	A



08:45 - 09:00

Junction	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)	Unsignalised level of service
J4-1	1-A			1339				369				
	1-B	600	150	80	2497	0.240	600	1260	0.4	0.3	1.924	A
	1-C	828	207	680	2778	0.298	829	0	0.6	0.4	1.858	A
	1-D	1338	334	240	1951	0.685	1351	1268	5.6	2.3	6.208	A
	1-E	177	44	1530	799	0.222	178	61	0.5	0.3	5.848	A
J4-2	2-A	316	79	1249	1566	0.202	316	0	0.4	0.3	2.881	A
	2-B	477	119	1194	1130	0.422	481	371	1.6	0.7	5.645	A
	2-C			602				1073				
	2-D	1247	312	0	2467	0.505	1249	602	1.6	1.0	3.012	A

09:00 - 09:15

Junction	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)	Unsignalised level of service
J4-1	1-A			1115				307				
	1-B	502	126	66	2505	0.200	502	1049	0.3	0.3	1.824	A
	1-C	693	173	569	2864	0.242	694	0	0.4	0.3	1.669	A
	1-D	1120	280	201	1974	0.568	1124	1062	2.3	1.3	4.308	A
	1-E	148	37	1274	928	0.160	149	51	0.3	0.2	4.649	A
J4-2	2-A	264	66	1045	1724	0.153	265	0	0.3	0.2	2.466	A
	2-B	400	100	999	1258	0.318	401	311	0.7	0.5	4.261	A
	2-C			503				897				
	2-D	1044	261	0	2467	0.423	1045	503	1.0	0.8	2.579	A

# 2030-Base+Comm, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Junction J4-1 - Arm 1-C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Junction J4-1 - Arm 1-D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4-1	North roundabout	Standard Roundabout		1-A, 1-B, 1-C, 1-D, 1-E	5.12	A
J4-2	South roundabout	Standard Roundabout		2-A, 2-B, 2-C, 2-D	4.06	A

### 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
D4	2030-Base+Comm	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
J4-1	1-A					
	1-B		ONE HOUR	✓	706	100.000
	1-C		ONE HOUR	✓	1567	100.000
	1-D		ONE HOUR	✓	1114	100.000
	1-E		ONE HOUR	✓	97	100.000
J4-2	2-A		ONE HOUR	✓	435	100.000
	2-B		ONE HOUR	✓	406	100.000
	2-C					
	2-D		ONE HOUR	✓	1361	100.000

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	33	0	0	618	55
	1-C	0	457	0	942	168
	1-D	228	864	0	0	22
	1-E	11	40	0	46	0

**Demand (PCU/hr)**
**Junction J4-2**

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	2	0	433
	2-B	0	0	134	272
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	742	619	0

## Vehicle Mix

**Heavy Vehicle Percentages**
**Junction J4-1**

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	0	0	0	0	0
	1-C	0	0	0	1	0
	1-D	0	0	0	1	1
	1-E	2	1	0	0	0

**Heavy Vehicle Percentages**
**Junction J4-2**

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	0
	2-B	0	0	1	1
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	1	1	0

## Results

**Results Summary for whole modelled period**

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
J4-1	1-A						
	1-B	0.31	2.07	0.4	A	648	972
	1-C	0.65	3.86	1.8	A	1438	2157
	1-D	0.75	8.73	2.9	A	1022	1533
	1-E	0.15	6.20	0.2	A	89	134
J4-2	2-A	0.35	4.03	0.5	A	399	599
	2-B	0.39	5.14	0.6	A	373	559
	2-C						
	2-D	0.61	3.74	1.6	A	1249	1873

### Main Results for each time segment

#### 16:45 - 17:00

Junction	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)	Unsignalised level of service
J4-1	1-A			1055				204				
	1-B	532	133	34	2526	0.210	530	1021	0.0	0.3	1.804	A
	1-C	1180	295	565	2867	0.412	1177	0	0.0	0.7	2.135	A
	1-D	839	210	536	1782	0.471	835	1206	0.0	0.9	3.791	A
	1-E	73	18	1187	973	0.075	73	184	0.0	0.1	4.024	A
J4-2	2-A	327	82	1022	1743	0.188	327	0	0.0	0.2	2.541	A
	2-B	306	76	790	1396	0.219	305	559	0.0	0.3	3.331	A
	2-C			529				565				
	2-D	1025	256	0	2467	0.415	1022	529	0.0	0.7	2.504	A

#### 17:00 - 17:15

Junction	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)	Unsignalised level of service
J4-1	1-A			1263				244				
	1-B	635	159	41	2521	0.252	634	1222	0.3	0.3	1.907	A
	1-C	1409	352	676	2781	0.507	1407	0	0.7	1.0	2.629	A
	1-D	1001	250	640	1721	0.582	999	1443	0.9	1.4	4.975	A
	1-E	87	22	1420	854	0.102	87	220	0.1	0.1	4.721	A
J4-2	2-A	391	98	1222	1587	0.246	391	0	0.2	0.3	3.010	A
	2-B	365	91	945	1294	0.282	365	668	0.3	0.4	3.911	A
	2-C			633				676				
	2-D	1224	306	0	2467	0.496	1222	633	0.7	1.0	2.912	A

#### 17:15 - 17:30

Junction	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)	Unsignalised level of service
J4-1	1-A			1543				298				
	1-B	777	194	51	2515	0.309	777	1493	0.3	0.4	2.070	A
	1-C	1725	431	827	2663	0.648	1722	0	1.0	1.8	3.828	A
	1-D	1227	307	784	1639	0.748	1221	1766	1.4	2.9	8.490	A
	1-E	107	27	1735	695	0.154	107	269	0.1	0.2	6.156	A
J4-2	2-A	479	120	1496	1374	0.349	478	0	0.3	0.5	4.016	A
	2-B	447	112	1156	1155	0.387	446	818	0.4	0.6	5.122	A
	2-C			775				828				
	2-D	1498	375	0	2467	0.607	1496	775	1.0	1.5	3.730	A

#### 17:30 - 17:45

Junction	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)	Unsignalised level of service
J4-1	1-A			1549				299				
	1-B	777	194	51	2515	0.309	777	1498	0.4	0.4	2.070	A
	1-C	1725	431	828	2663	0.648	1725	0	1.8	1.8	3.855	A
	1-D	1227	307	785	1638	0.749	1226	1768	2.9	2.9	8.733	A
	1-E	107	27	1742	691	0.154	107	270	0.2	0.2	6.196	A
J4-2	2-A	479	120	1498	1372	0.349	479	0	0.5	0.5	4.030	A
	2-B	447	112	1158	1154	0.387	447	819	0.6	0.6	5.143	A
	2-C			776				829				
	2-D	1498	375	0	2467	0.607	1498	776	1.5	1.6	3.745	A

**17:45 - 18:00**

Junction	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)	Unsignalised level of service
J4-1	1-A			1271				246				
	1-B	635	159	41	2521	0.252	635	1229	0.4	0.3	1.908	A
	1-C	1409	352	677	2780	0.507	1412	0	1.8	1.0	2.647	A
	1-D	1001	250	642	1720	0.582	1008	1446	2.9	1.4	5.094	A
	1-E	87	22	1429	850	0.103	87	221	0.2	0.1	4.755	A
J4-2	2-A	391	98	1226	1584	0.247	392	0	0.5	0.3	3.023	A
	2-B	365	91	948	1292	0.282	366	670	0.6	0.4	3.930	A
	2-C			635				678				
	2-D	1224	306	0	2467	0.496	1226	635	1.6	1.0	2.929	A

**18:00 - 18:15**

Junction	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)	Unsignalised level of service
J4-1	1-A			1061				205				
	1-B	532	133	35	2526	0.210	532	1027	0.3	0.3	1.807	A
	1-C	1180	295	566	2866	0.412	1181	0	1.0	0.7	2.149	A
	1-D	839	210	537	1781	0.471	841	1210	1.4	0.9	3.841	A
	1-E	73	18	1193	969	0.075	73	185	0.1	0.1	4.043	A
J4-2	2-A	327	82	1026	1739	0.188	328	0	0.3	0.2	2.550	A
	2-B	306	76	793	1394	0.219	306	561	0.4	0.3	3.347	A
	2-C			531				568				
	2-D	1025	256	0	2467	0.415	1026	531	1.0	0.7	2.518	A

# 2030-Base+Comm+Dev, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Junction J4-1 - Arm 1-C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Junction J4-1 - Arm 1-D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4-1	North roundabout	Standard Roundabout		1-A, 1-B, 1-C, 1-D, 1-E	9.26	A
J4-2	South roundabout	Standard Roundabout		2-A, 2-B, 2-C, 2-D	5.85	A

### 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
D5	2030-Base+Comm+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
J4-1	1-A					
	1-B		ONE HOUR	✓	679	100.000
	1-C		ONE HOUR	✓	935	100.000
	1-D		ONE HOUR	✓	1541	100.000
	1-E		ONE HOUR	✓	250	100.000
J4-2	2-A		ONE HOUR	✓	359	100.000
	2-B		ONE HOUR	✓	535	100.000
	2-C					
	2-D		ONE HOUR	✓	1462	100.000

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	63	0	0	582	34
	1-C	1	149	0	753	32
	1-D	343	1183	0	0	15
	1-E	31	131	0	88	0

**Demand (PCU/hr)**

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	359
	2-B	0	0	215	320
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	429	1033	0

## Vehicle Mix

**Heavy Vehicle Percentages**

Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	0	0	0	2	0
	1-C	0	0	0	1	0
	1-D	1	1	0	0	8
	1-E	0	1	0	0	0

**Heavy Vehicle Percentages**

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	0
	2-B	0	0	3	1
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	3	1	0

## Results

**Results Summary for whole modelled period**

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
J4-1	1-A						
	1-B	0.30	2.10	0.4	A	623	935
	1-C	0.39	2.23	0.6	A	858	1287
	1-D	0.89	16.40	7.4	C	1414	2121
	1-E	0.46	11.01	0.8	B	229	344
J4-2	2-A	0.31	4.04	0.4	A	329	494
	2-B	0.65	11.40	1.8	B	491	736
	2-C						
	2-D	0.65	4.27	1.9	A	1342	2012

### Main Results for each time segment

#### 07:45 - 08:00

Junction	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)	Unsignalised level of service
J4-1	1-A			1162				328				
	1-B	511	128	66	2505	0.204	510	1096	0.0	0.3	1.828	A
	1-C	704	176	576	2858	0.246	703	0	0.0	0.3	1.681	A
	1-D	1160	290	210	1969	0.589	1154	1069	0.0	1.4	4.446	A
	1-E	188	47	1303	914	0.206	187	61	0.0	0.3	4.985	A
J4-2	2-A	270	68	1097	1684	0.161	270	0	0.0	0.2	2.544	A
	2-B	403	101	1045	1228	0.328	401	322	0.0	0.5	4.396	A
	2-C			509				936				
	2-D	1101	275	0	2467	0.446	1097	509	0.0	0.8	2.666	A

#### 08:00 - 08:15

Junction	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)	Unsignalised level of service
J4-1	1-A			1391				393				
	1-B	610	153	79	2497	0.244	610	1312	0.3	0.3	1.934	A
	1-C	841	210	689	2771	0.303	840	0	0.3	0.4	1.876	A
	1-D	1385	346	251	1945	0.712	1381	1278	1.4	2.4	6.418	A
	1-E	225	56	1559	784	0.287	224	73	0.3	0.4	6.473	A
J4-2	2-A	323	81	1313	1516	0.213	322	0	0.2	0.3	3.015	A
	2-B	481	120	1250	1094	0.440	480	385	0.5	0.8	5.932	A
	2-C			609				1121				
	2-D	1314	329	0	2467	0.533	1313	609	0.8	1.2	3.168	A

#### 08:15 - 08:30

Junction	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)	Unsignalised level of service
J4-1	1-A			1692				478				
	1-B	748	187	96	2486	0.301	747	1596	0.3	0.4	2.099	A
	1-C	1029	257	843	2651	0.388	1029	0	0.4	0.6	2.232	A
	1-D	1697	424	307	1913	0.887	1679	1565	2.4	6.9	14.553	B
	1-E	275	69	1897	613	0.449	274	89	0.4	0.8	10.645	B
J4-2	2-A	395	99	1607	1288	0.307	395	0	0.3	0.4	4.027	A
	2-B	589	147	1530	911	0.647	585	471	0.8	1.8	11.075	B
	2-C			744				1370				
	2-D	1610	402	0	2467	0.653	1607	744	1.2	1.9	4.242	A

#### 08:30 - 08:45

Junction	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)	Unsignalised level of service
J4-1	1-A			1706				482				
	1-B	748	187	97	2485	0.301	748	1609	0.4	0.4	2.099	A
	1-C	1029	257	844	2650	0.388	1029	0	0.6	0.6	2.235	A
	1-D	1697	424	307	1913	0.887	1695	1567	6.9	7.4	16.404	C
	1-E	275	69	1913	604	0.455	275	89	0.8	0.8	11.007	B
J4-2	2-A	395	99	1610	1286	0.307	395	0	0.4	0.4	4.042	A
	2-B	589	147	1533	909	0.648	589	472	1.8	1.8	11.395	B
	2-C			747				1374				
	2-D	1610	402	0	2467	0.653	1610	747	1.9	1.9	4.271	A



**08:45 - 09:00**

Junction	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)	Unsignalised level of service
J4-1	1-A			1411				398				
	1-B	610	153	80	2497	0.245	611	1331	0.4	0.3	1.935	A
	1-C	841	210	691	2769	0.304	841	0	0.6	0.4	1.878	A
	1-D	1385	346	251	1945	0.712	1405	1281	7.4	2.6	6.973	A
	1-E	225	56	1583	772	0.291	226	73	0.8	0.4	6.666	A
J4-2	2-A	323	81	1317	1513	0.213	323	0	0.4	0.3	3.027	A
	2-B	481	120	1254	1091	0.441	485	387	1.8	0.8	6.059	A
	2-C			614				1126				
	2-D	1314	329	0	2467	0.533	1317	614	1.9	1.2	3.192	A

**09:00 - 09:15**

Junction	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)	Unsignalised level of service
J4-1	1-A			1172				331				
	1-B	511	128	66	2505	0.204	511	1105	0.3	0.3	1.829	A
	1-C	704	176	578	2857	0.246	704	0	0.4	0.3	1.682	A
	1-D	1160	290	210	1969	0.589	1165	1072	2.6	1.5	4.559	A
	1-E	188	47	1314	908	0.207	189	61	0.4	0.3	5.046	A
J4-2	2-A	270	68	1102	1680	0.161	271	0	0.3	0.2	2.556	A
	2-B	403	101	1049	1226	0.329	404	323	0.8	0.5	4.450	A
	2-C			512				941				
	2-D	1101	275	0	2467	0.446	1102	512	1.2	0.8	2.687	A

# 2030-Base+Comm+Dev, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Junction J4-1 - Arm 1-C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Junction J4-1 - Arm 1-D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4-1	North roundabout	Standard Roundabout		1-A, 1-B, 1-C, 1-D, 1-E	5.62	A
J4-2	South roundabout	Standard Roundabout		2-A, 2-B, 2-C, 2-D	4.24	A

### 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
D6	2030-Base+Comm+Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
J4-1	1-A					
	1-B		ONE HOUR	✓	743	100.000
	1-C		ONE HOUR	✓	1611	100.000
	1-D		ONE HOUR	✓	1132	100.000
	1-E		ONE HOUR	✓	115	100.000
J4-2	2-A		ONE HOUR	✓	459	100.000
	2-B		ONE HOUR	✓	419	100.000
	2-C					
	2-D		ONE HOUR	✓	1386	100.000

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction J4-1

From	To					
	1-A	1-B	1-C	1-D	1-E	
1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
1-B	33	0	0	636	74	
1-C	0	457	0	964	190	
1-D	233	877	0	0	22	
1-E	16	53	0	46	0	

**Demand (PCU/hr)**

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	2	0	457
	2-B	0	0	134	285
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	748	638	0

## Vehicle Mix

**Heavy Vehicle Percentages**

Junction J4-1

		To				
		1-A	1-B	1-C	1-D	1-E
From	1-A	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	1-B	0	0	0	0	0
	1-C	0	0	0	1	0
	1-D	0	0	0	1	1
	1-E	2	1	0	0	0

**Heavy Vehicle Percentages**

Junction J4-2

		To			
		2-A	2-B	2-C	2-D
From	2-A	0	0	0	0
	2-B	0	0	1	1
	2-C	Exit-only	Exit-only	Exit-only	Exit-only
	2-D	0	1	1	0

## Results

**Results Summary for whole modelled period**

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
J4-1	1-A						
	1-B	0.33	2.12	0.5	A	682	1023
	1-C	0.67	4.21	2.1	A	1478	2217
	1-D	0.77	9.82	3.3	A	1039	1558
	1-E	0.19	6.54	0.2	A	106	158
J4-2	2-A	0.37	4.26	0.6	A	421	632
	2-B	0.41	5.50	0.7	A	384	577
	2-C						
	2-D	0.62	3.85	1.6	A	1272	1908

## Main Results for each time segment

### 16:45 - 17:00

Junction	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)	Unsignalised level of service
J4-1	1-A			1075				211				
	1-B	559	140	34	2526	0.221	558	1040	0.0	0.3	1.829	A
	1-C	1213	303	593	2845	0.426	1210	0	0.0	0.7	2.207	A
	1-D	852	213	566	1764	0.483	849	1236	0.0	0.9	3.918	A
	1-E	87	22	1200	966	0.090	86	215	0.0	0.1	4.120	A
J4-2	2-A	346	86	1041	1728	0.200	345	0	0.0	0.2	2.601	A
	2-B	315	79	822	1374	0.230	314	563	0.0	0.3	3.428	A
	2-C			557				579				
	2-D	1043	261	0	2467	0.423	1041	557	0.0	0.7	2.537	A

### 17:00 - 17:15

Junction	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)	Unsignalised level of service
J4-1	1-A			1286				253				
	1-B	668	167	41	2521	0.265	668	1245	0.3	0.4	1.941	A
	1-C	1448	362	709	2755	0.526	1447	0	0.7	1.1	2.761	A
	1-D	1018	254	677	1700	0.599	1015	1479	0.9	1.5	5.243	A
	1-E	103	26	1436	846	0.122	103	257	0.1	0.1	4.877	A
J4-2	2-A	413	103	1245	1569	0.263	412	0	0.2	0.4	3.111	A
	2-B	377	94	983	1269	0.297	376	674	0.3	0.4	4.074	A
	2-C			666				693				
	2-D	1246	311	0	2467	0.505	1245	666	0.7	1.0	2.965	A

### 17:15 - 17:30

Junction	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)	Unsignalised level of service
J4-1	1-A			1571				309				
	1-B	818	205	51	2515	0.325	818	1520	0.4	0.5	2.120	A
	1-C	1774	443	868	2632	0.674	1770	0	1.1	2.0	4.176	A
	1-D	1246	312	829	1613	0.773	1239	1809	1.5	3.3	9.457	A
	1-E	127	32	1754	685	0.185	126	314	0.1	0.2	6.482	A
J4-2	2-A	505	126	1524	1353	0.374	504	0	0.4	0.6	4.240	A
	2-B	461	115	1204	1124	0.410	460	824	0.4	0.7	5.467	A
	2-C			815				849				
	2-D	1526	382	0	2467	0.619	1524	815	1.0	1.6	3.837	A

### 17:30 - 17:45

Junction	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)	Unsignalised level of service
J4-1	1-A			1578				310				
	1-B	818	205	51	2515	0.325	818	1527	0.5	0.5	2.120	A
	1-C	1774	443	869	2631	0.674	1774	0	2.0	2.1	4.215	A
	1-D	1246	312	830	1612	0.773	1246	1812	3.3	3.3	9.816	A
	1-E	127	32	1761	681	0.186	127	315	0.2	0.2	6.535	A
J4-2	2-A	505	126	1526	1351	0.374	505	0	0.6	0.6	4.258	A
	2-B	461	115	1206	1123	0.411	461	826	0.7	0.7	5.495	A
	2-C			817				850				
	2-D	1526	382	0	2467	0.619	1526	817	1.6	1.6	3.855	A

**17:45 - 18:00**

Junction	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)	Unsignalised level of service
J4-1	1-A			1295				255				
	1-B	668	167	41	2521	0.265	668	1254	0.5	0.4	1.943	A
	1-C	1448	362	710	2754	0.526	1452	0	2.1	1.1	2.785	A
	1-D	1018	254	679	1699	0.599	1025	1483	3.3	1.5	5.401	A
	1-E	103	26	1447	841	0.123	104	258	0.2	0.1	4.920	A
J4-2	2-A	413	103	1248	1566	0.263	414	0	0.6	0.4	3.126	A
	2-B	377	94	986	1267	0.297	378	676	0.7	0.4	4.096	A
	2-C			669				695				
	2-D	1246	311	0	2467	0.505	1248	669	1.6	1.0	2.984	A

**18:00 - 18:15**

Junction	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)	Unsignalised level of service
J4-1	1-A			1081				213				
	1-B	559	140	35	2526	0.221	560	1046	0.4	0.3	1.830	A
	1-C	1213	303	594	2844	0.426	1214	0	1.1	0.7	2.219	A
	1-D	852	213	568	1763	0.483	855	1240	1.5	0.9	3.976	A
	1-E	87	22	1207	962	0.090	87	216	0.1	0.1	4.142	A
J4-2	2-A	346	86	1045	1725	0.200	346	0	0.4	0.3	2.613	A
	2-B	315	79	825	1372	0.230	316	565	0.4	0.3	3.444	A
	2-C			559				582				
	2-D	1043	261	0	2467	0.423	1045	559	1.0	0.7	2.552	A