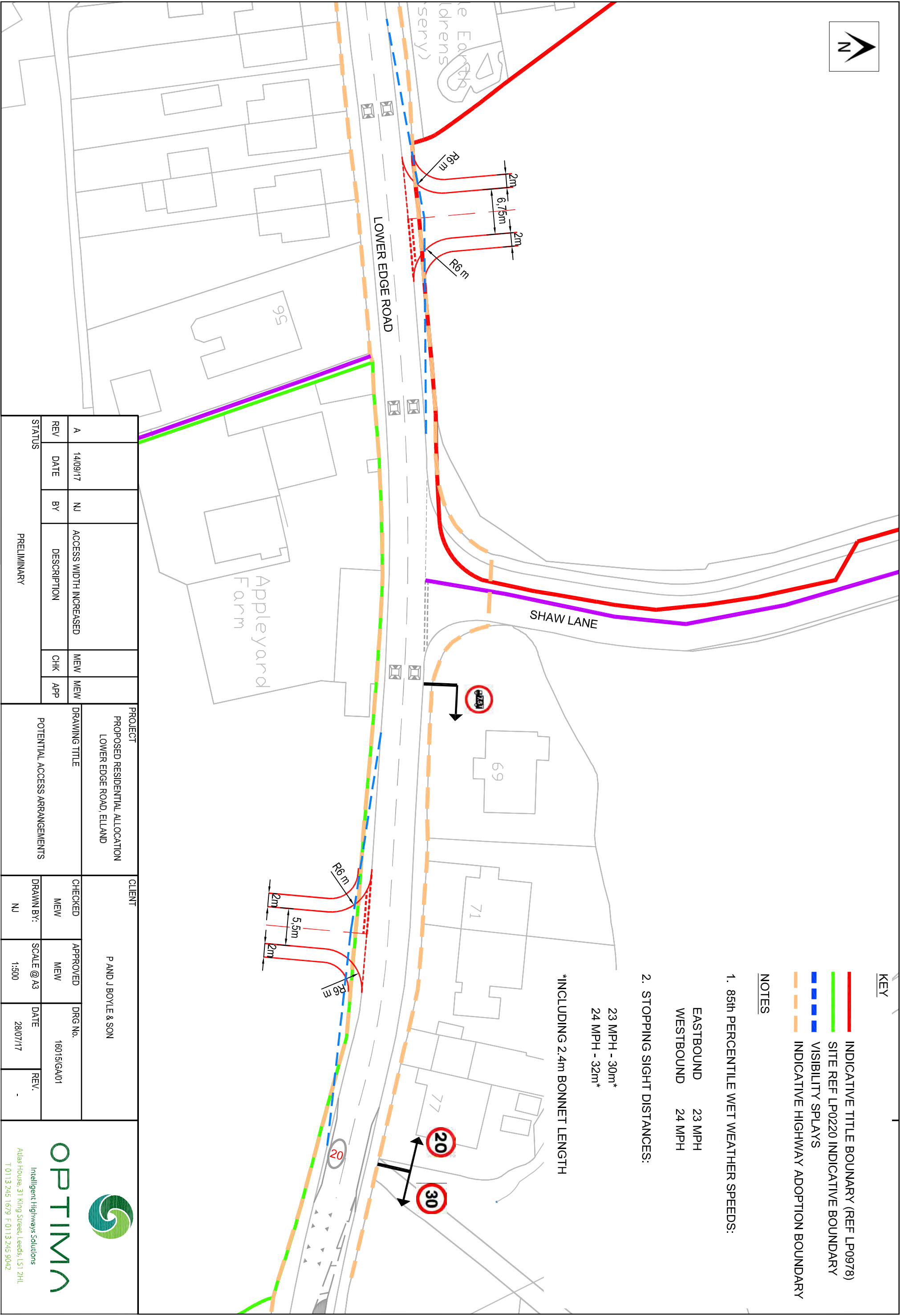
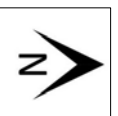


## **Appendix F Drawing 165015/GA/01 – Proposed Access Arrangements**






**KEY**

- INDICATIVE TITLE BOUNDARY (REF LP0978)
- SITE REF LP0220 INDICATIVE BOUNDARY
- - - VISIBILITY SPLAYS
- - - INDICATIVE HIGHWAY ADOPTION BOUNDARY

**NOTES**

1. 85th PERCENTILE WET WEATHER SPEEDS:  
 EASTBOUND 23 MPH  
 WESTBOUND 24 MPH
2. STOPPING SIGHT DISTANCES:  
 23 MPH - 30m\*  
 24 MPH - 32m\*

\*INCLUDING 2.4m BONNET LENGTH

<b>STATUS</b>		<b>PRELIMINARY</b>	
REV	DATE	BY	DESCRIPTION
A	14/09/17	NJ	ACCESS WIDTH INCREASED
MEW	MEW	CHK	APP
<b>PROJECT</b>		<b>CLIENT</b>	
PROPOSED RESIDENTIAL ALLOCATION LOWER EDGE ROAD, ELLAND		P AND J BOYLE & SON	
<b>DRAWING TITLE</b>		<b>APPROVED</b>	
POTENTIAL ACCESS ARRANGEMENTS		MEW	DRG No.
		MEW	16015GA01
		SCALE @ A3	DATE
		1:300	28/07/17
		DRAWN BY:	REV.
		NJ	-
 <b>OPTIMA</b> Intelligent Highways Solutions Atlas House, 31 King Street, Leeds, LS1 2HL T 0113 245 1679 F 0113 245 9042			

## Appendix G Parking Beat Survey



# Parking Beat, Elland

DATE: TUESDAY 12th SEPTEMBER 2017



ROAD NAME	AREA	NUMBER OF VEHICLES PARKED											
		08:00	08:10	08:20	08:30	08:40	08:50	09:00	09:10	09:20	09:30	09:40	09:50
ELLAND ROAD	1	0	0	0	0	1	2	0	0	0	0	0	0
ELLAND ROAD	2	0	0	0	1	1	2	1	0	0	0	0	0
ELLAND ROAD	3	0	0	0	0	5	4	1	1	2	2	2	2
ELLAND ROAD	4	0	0	0	0	0	0	0	0	0	0	0	0
ELLAND ROAD	5	0	0	2	1	7	1	1	1	1	1	1	1
ELLAND ROAD	6	0	0	0	0	0	0	0	0	0	0	0	0
ELLAND ROAD	7	0	0	0	0	2	0	0	0	0	0	0	0
ELLAND ROAD	8	0	0	0	0	0	0	0	0	0	0	1	1
ELLAND ROAD	9	4	1	2	9	11	10	5	5	5	5	5	5
ELLAND ROAD	10	0	0	0	0	0	0	0	0	0	0	0	0
ELLAND ROAD	11	0	0	0	0	4	2	0	0	0	0	0	0
ELLAND ROAD	12	0	0	0	0	0	0	0	0	0	0	0	0
SHAW LANE	13	0	0	0	2	12	5	1	2	2	2	2	2
SHAW LANE	14	0	0	0	0	11	4	2	3	2	2	1	1
LODGE DRIVE	15	0	0	0	0	3	0	0	0	0	0	0	0
LODGE DRIVE	16	1	1	1	2	2	2	1	1	1	1	1	1
CARLTON GROVE	17	0	0	1	3	8	4	1	1	0	0	0	0
CARLTON GROVE	18	0	0	0	0	0	0	0	0	0	0	0	0
ENNERDALE DRIVE	19	0	0	0	0	0	0	0	0	0	0	0	0
ENNERDALE DRIVE	20	4	4	3	5	7	3	2	1	1	1	1	1
THIRLMERE AVE	21	1	1	2	2	4	3	2	2	3	3	3	3
THIRLMERE AVE	22	2	2	1	2	6	6	1	1	1	1	1	1
THIRLMERE AVE	23	1	1	1	1	2	1	1	0	0	0	0	0
THIRLMERE AVE	24	0	0	0	0	0	0	0	0	0	0	0	0
GRASMERE DRIVE	25	0	0	0	0	0	0	0	0	0	0	0	0
GRASMERE DRIVE	26	3	3	3	7	13	11	4	3	3	3	3	4
<b>TOTAL</b>	<b>TOTAL</b>	16	13	16	35	99	60	23	21	21	21	21	22

# Parking Beat, Elland

DATE: TUESDAY 12th SEPTEMBER 2017



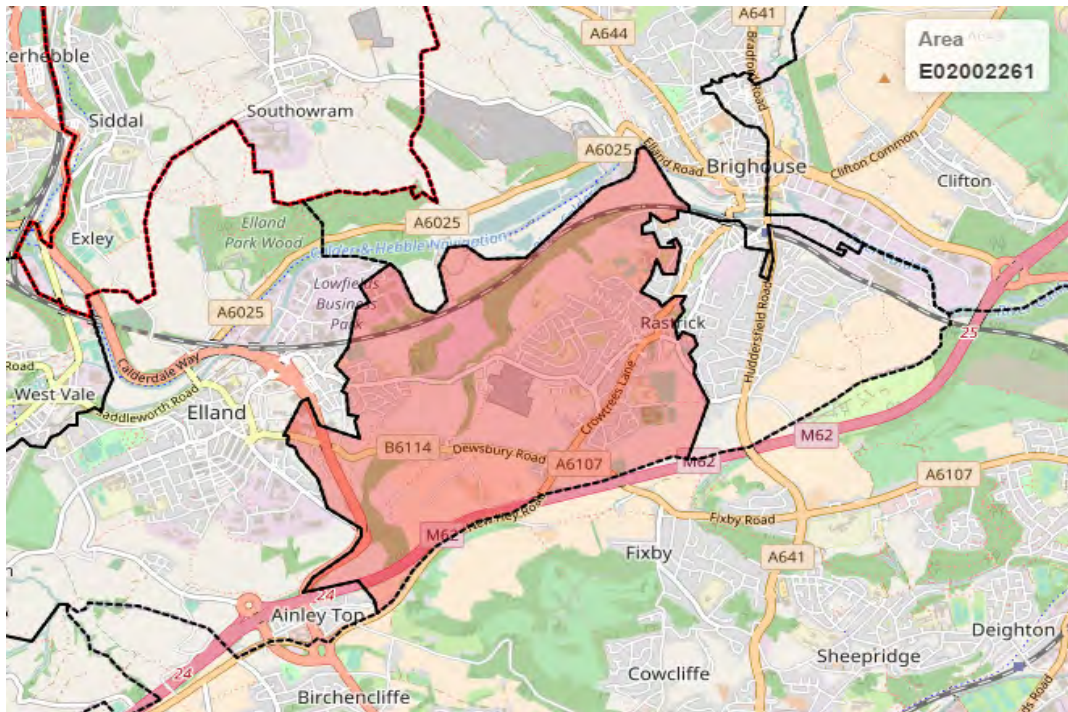
ROAD NAME	AREA	NUMBER OF VEHICLES PARKED											
		14:00	14:10	14:20	14:30	14:40	14:50	15:00	15:10	15:20	15:30	15:40	15:50
ELLAND ROAD	1	0	0	0	0	0	1	4	3	1	0	0	0
ELLAND ROAD	2	0	0	0	0	0	0	0	0	0	0	0	0
ELLAND ROAD	3	1	1	1	1	2	3	5	3	1	1	1	1
ELLAND ROAD	4	0	0	0	0	0	0	0	0	0	0	0	0
ELLAND ROAD	5	2	2	2	3	8	7	9	4	3	2	2	3
ELLAND ROAD	6	0	0	0	0	0	0	0	0	0	0	0	0
ELLAND ROAD	7	0	0	0	0	2	3	3	2	0	0	0	0
ELLAND ROAD	8	0	0	0	0	0	0	0	0	0	0	0	0
ELLAND ROAD	9	4	4	4	9	12	14	11	5	4	3	3	6
ELLAND ROAD	10	0	0	0	0	0	0	0	0	0	0	0	0
ELLAND ROAD	11	1	1	1	1	2	4	7	5	1	1	1	1
ELLAND ROAD	12	0	0	0	0	0	0	0	0	0	0	0	0
SHAW LANE	13	3	3	3	3	10	13	13	11	0	0	0	1
SHAW LANE	14	1	1	1	0	8	13	12	5	0	0	0	0
LODGE DRIVE	15	0	0	0	0	1	1	1	0	0	0	0	0
LODGE DRIVE	16	1	1	1	1	1	1	1	1	1	1	1	1
CARLTON GROVE	17	1	0	0	0	7	8	10	1	0	0	1	0
CARLTON GROVE	18	0	0	0	0	0	0	0	0	0	0	0	0
ENNERDALE DRIVE	19	0	0	0	0	0	0	0	0	0	0	0	0
ENNERDALE DRIVE	20	1	1	2	2	4	6	6	2	2	2	2	1
THIRLMERE AVE	21	1	1	1	1	1	1	1	2	1	2	2	2
THIRLMERE AVE	22	1	2	2	2	2	4	5	5	0	0	0	1
THIRLMERE AVE	23	0	0	0	0	0	0	1	1	0	0	0	0
THIRLMERE AVE	24	1	1	1	1	1	1	2	1	1	1	0	1
GRASMERE DRIVE	25	0	0	0	0	0	0	0	0	0	0	0	0
GRASMERE DRIVE	26	1	1	1	2	5	10	14	10	2	2	1	1
<b>TOTAL</b>	<b>TOTAL</b>	19	19	20	26	66	90	105	61	17	15	14	19

## Appendix H Distribution





place of work : 2011 super output area - middle layer	E02002267 : Calderdale G24	Percentage	M62 W	M62 E	Bradley Road	Lightridge Rd A61 S	B6114 (Saddleworth Road)	A643 W (Lindley Moor Rd)	A643 NE (Clifton Common)	Rochdale Road	A6026	A641 N (Bradford Rd)	A643 N (Owler Ings Rd)	Huddersfield Rd (A629)	Wakefield Rd A644 E	A646 Skircoat Moor Rd	Elland Riorges Link	Park Road	A641 (Cliffe Rd)	Dell Hill	A6107 (Clough In)	A629 S	B6118	Local (Lowfields)	Total	
E02002421 : Leeds 092	1	0.04%		0.04%																					0.04%	
E02002422 : Leeds 093	7	0.31%		0.31%																						0.31%
E02002424 : Leeds 095	6	0.27%		0.27%																						0.27%
E02002425 : Leeds 096	1	0.04%		0.04%																						0.04%
E02002431 : Leeds 102	10	0.44%		0.44%																						0.44%
E02002433 : Leeds 104	3	0.13%		0.13%																						0.13%
E02002435 : Leeds 106	5	0.22%		0.22%																						0.22%
E02002439 : Wakefield 002	1	0.04%		0.02%																			0.02%			0.04%
E02002441 : Wakefield 004	1	0.04%		0.02%																			0.02%			0.04%
E02002442 : Wakefield 005	1	0.04%		0.02%																			0.02%			0.04%
E02002444 : Wakefield 007	1	0.04%		0.02%																			0.02%			0.04%
E02002446 : Wakefield 009	2	0.09%		0.04%																			0.04%			0.09%
E02002447 : Wakefield 010	1	0.04%		0.02%																			0.02%			0.04%
E02002450 : Wakefield 013	3	0.13%		0.07%																			0.07%			0.13%
E02002451 : Wakefield 014	5	0.22%		0.11%																			0.11%			0.22%
E02002454 : Wakefield 017	4	0.18%		0.09%																			0.09%			0.18%
E02002455 : Wakefield 018	4	0.18%		0.09%																			0.09%			0.18%
E02002456 : Wakefield 019	6	0.27%		0.13%																			0.13%			0.27%
E02002457 : Wakefield 020	1	0.04%		0.02%																			0.02%			0.04%
E02002461 : Wakefield 024	3	0.13%		0.07%																			0.07%			0.13%
E02002462 : Wakefield 025	3	0.13%		0.04%																			0.04%			0.13%
E02002464 : Wakefield 027	3	0.13%		0.07%																			0.07%			0.13%
E02002466 : Wakefield 029	2	0.09%		0.03%																			0.03%			0.09%
E02002467 : Wakefield 030	2	0.09%		0.03%																			0.03%			0.09%
E02002468 : Wakefield 031	3	0.13%		0.04%																			0.04%			0.13%
E02002470 : Wakefield 033	3	0.13%		0.04%																			0.04%			0.13%
E02002472 : Wakefield 035	4	0.18%				0.09%																	0.09%			0.18%
E02002473 : Wakefield 036	1	0.04%				0.02%																	0.02%			0.04%
E02002772 : York 001	1	0.04%		0.04%																						0.04%
E02002782 : York 011	2	0.09%		0.09%																						0.09%
E02002783 : York 012	1	0.04%		0.04%																						0.04%
E02002784 : York 013	1	0.04%		0.04%																						0.04%
E02002787 : York 016	1	0.04%		0.04%																						0.04%
E02005178 : Burnley 003	1	0.04%									0.04%															0.04%
E02005182 : Burnley 007	1	0.04%									0.04%															0.04%
E02005185 : Burnley 010	1	0.04%									0.04%															0.04%
E02005746 : Craven 005	1	0.04%											0.04%													0.04%
E02005747 : Craven 006	1	0.04%											0.04%													0.04%
E02005749 : Craven 008	1	0.04%											0.04%													0.04%
E02005772 : Harrogate 012	1	0.04%		0.04%									0.04%													0.04%
E02005773 : Harrogate 013	1	0.04%		0.04%									0.04%													0.04%
E02005776 : Harrogate 016	1	0.04%		0.04%									0.04%													0.04%
E02005777 : Harrogate 017	1	0.04%		0.04%									0.04%													0.04%
E02006843 : Sheffield 073	2	0.09%				0.09%																				0.09%
E02006852 : Leeds 109	1	0.04%		0.04%																						0.04%
E02006861 : Leeds 110	1	0.04%		0.04%																						0.04%
E02006868 : Sheffield 075	1	0.04%				0.02%																		0.02%		0.04%
E02006875 : Leeds 111	35	1.55%		0.93%																						1.55%
E02006876 : Leeds 112	13	0.58%		0.29%																						0.58%
E02006902 : Manchester 054	2	0.09%		0.09%																						0.09%
E02006912 : Manchester 055	3	0.13%		0.13%																						0.13%
	2,258	100%	1.90%	11.40%	0.78%	0.59%	0.06%	0.04%	0.53%	2.04%	3.06%	5.78%	10.34%	11.95%	1.82%	6.04%	10.71%	2.19%	2.75%	1.28%	13.97%	7.57%	1.41%	3.81%	100.00%	





## Appendix I TRICS Outputs



## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION

Category : A - PRIMARY

## VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
	NR NORTHAMPTONSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	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

## Filtering Stage 2 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 657 (units: )  
 Range Selected by User: 79 to 657 (units: )

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 10/12/14

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	2 days
Tuesday	2 days
Wednesday	3 days
Thursday	3 days

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

Selected survey types:

Manual count	10 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)	7
Edge of Town	3

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	9
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.

Filtering Stage 3 selection:

Use Class:

D1	10 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	2 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	3 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
75,001 to 100,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	3 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	4 days
1.1 to 1.5	6 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	1 days
No	9 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.

LIST OF SITES relevant to selection parameters

1	CH-04-A-01 WESTON GROVE UPTON CHESTER Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: 219 Survey date: MONDAY 17/11/14	PRIMARY SCHOOL	CHESHIRE	Survey Type: MANUAL
2	HC-04-A-04 AUSTEN AVENUE  WINCHESTER Edge of Town Residential Zone Total Number of pupils: 231 Survey date: TUESDAY 20/11/07	PRIMARY SCHOOL	HAMPSHIRE	Survey Type: MANUAL
3	LE-04-A-02 BEAUFORT WAY OADBY LEICESTER Edge of Town Residential Zone Total Number of pupils: 380 Survey date: THURSDAY 30/10/14	PRIMARY SCHOOL	LEICESTERSHIRE	Survey Type: MANUAL
4	MS-04-A-02 BOOKER AVENUE ALVERTON LIVERPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: 264 Survey date: THURSDAY 13/06/13	PRIMARY SCHOOL	MERSEYSIDE	Survey Type: MANUAL
5	NE-04-A-01 SUNNINGDALE ROAD  SCUNTHORPE Edge of Town Residential Zone Total Number of pupils: 147 Survey date: TUESDAY 20/05/14	PRIMARY SCHOOL	NORTH EAST LINCOLNSHIRE	Survey Type: MANUAL
6	NR-04-A-01 GRANGE ROAD EASTFIELD PARK NORTHAMPTON Suburban Area (PPS6 Out of Centre) No Sub Category Total Number of pupils: 376 Survey date: WEDNESDAY 23/05/07	PRIMARY SCH.	NORTHAMPTONSHIRE	Survey Type: MANUAL
7	NR-04-A-02 DAYRELL ROAD  NORTHAMPTON Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: 400 Survey date: WEDNESDAY 26/11/08	PRIMARY SCHOOL	NORTHAMPTONSHIRE	Survey Type: MANUAL
8	SF-04-A-02 SIDEGATE LANE  IPSWICH Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: 657 Survey date: WEDNESDAY 21/05/08	PRIMARY SCHOOL	SUFFOLK	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	TW-04-A-01	PRIMARY SCHOOL		TYNE & WEAR
	GLYNWOOD GARDENS			
	GATESHEAD			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of pupils:		260	
	Survey date:	MONDAY	07/10/13	Survey Type: MANUAL
10	WY-04-A-01	PRIMARY SCHOOL		WEST YORKSHIRE
	SHAKESPEARE AVENUE			
	LEEDS			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of pupils:		370	
	Survey date:	THURSDAY	19/09/13	Survey Type: MANUAL

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	10	330	0.050	10	330	0.018	10	330	0.068
08:00 - 09:00	10	330	0.270	10	330	0.184	10	330	0.454
09:00 - 10:00	10	330	0.029	10	330	0.049	10	330	0.078
10:00 - 11:00	10	330	0.015	10	330	0.014	10	330	0.029
11:00 - 12:00	10	330	0.027	10	330	0.021	10	330	0.048
12:00 - 13:00	10	330	0.029	10	330	0.037	10	330	0.066
13:00 - 14:00	10	330	0.014	10	330	0.021	10	330	0.035
14:00 - 15:00	10	330	0.039	10	330	0.020	10	330	0.059
15:00 - 16:00	10	330	0.179	10	330	0.213	10	330	0.392
16:00 - 17:00	10	330	0.049	10	330	0.094	10	330	0.143
17:00 - 18:00	10	330	0.031	10	330	0.044	10	330	0.075
18:00 - 19:00	9	323	0.014	9	323	0.022	9	323	0.036
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			<b>0.746</b>			<b>0.737</b>			<b>1.483</b>

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.

#### Parameter summary

Trip rate parameter range selected: 147 - 657 (units: )  
 Survey date date range: 01/01/07 - 10/12/14  
 Number of weekdays (Monday-Friday): 10  
 Number of Saturdays: 0  
 Number of Sundays: 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-750701-160217-0254

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : A - HOUSES PRIVATELY OWNED  
 VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	1 days
	WS WEST SUSSEX	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	2 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	2 days
10	WALES	
	CF CARDIFF	1 days

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

## Filtering Stage 2 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: 108 to 432 (units: )  
 Range Selected by User: 100 to 500 (units: )

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 11/12/14

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	2 days
Tuesday	4 days
Thursday	3 days
Friday	2 days

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

Selected survey types:

Manual count	11 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)	4
Edge of Town	7

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	8
No Sub Category	3

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.

Filtering Stage 3 selection:

Use Class:

C3 11 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	1 days
10,001 to 15,000	2 days
15,001 to 20,000	5 days
20,001 to 25,000	2 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
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	4 days
125,001 to 250,000	3 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	2 days
1.1 to 1.5	9 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	1 days
No	10 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.



LIST OF SITES relevant to selection parameters

1	CF-03-A-02 DROPE ROAD	MIXED HOUSES		CARDIFF
	CARDIFF Edge of Town Residential Zone			
	Total Number of dwellings:	196		
	Survey date: FRIDAY	05/10/07		Survey Type: MANUAL
2	CH-03-A-02 SYDNEY ROAD	HOUSES/FLATS		CHESHIRE
	CREWE Edge of Town Residential Zone			
	Total Number of dwellings:	174		
	Survey date: TUESDAY	14/10/08		Survey Type: MANUAL
3	CH-03-A-06 CREWE ROAD	SEMI-DET./BUNGALOWS		CHESHIRE
	CREWE Suburban Area (PPS6 Out of Centre) No Sub Category			
	Total Number of dwellings:	129		
	Survey date: TUESDAY	14/10/08		Survey Type: MANUAL
4	EX-03-A-01 MILTON ROAD CORRINGHAM STANFORD-LE-HOPE	SEMI-DET.		ESSEX
	Edge of Town Residential Zone			
	Total Number of dwellings:	237		
	Survey date: TUESDAY	13/05/08		Survey Type: MANUAL
5	LN-03-A-01 BRANT ROAD BRACEBRIDGE LINCOLN	MIXED HOUSES		LINCOLNSHIRE
	Edge of Town Residential Zone			
	Total Number of dwellings:	150		
	Survey date: TUESDAY	15/05/07		Survey Type: MANUAL
6	LN-03-A-02 HYKEHAM ROAD	MIXED HOUSES		LINCOLNSHIRE
	LINCOLN Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total Number of dwellings:	186		
	Survey date: MONDAY	14/05/07		Survey Type: MANUAL
7	NE-03-A-02 HANOVER WALK	SEMI DETACHED & DETACHED		NORTH EAST LINCOLNSHIRE
	SCUNTHORPE Edge of Town No Sub Category			
	Total Number of dwellings:	432		
	Survey date: MONDAY	12/05/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	NY-03-A-06 HORSEFAIR	BUNGALOWS & SEMI DET.		NORTH YORKSHIRE
	BOROUGHBRIDGE Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 115 Survey date: FRIDAY 14/10/11			
9	SF-03-A-02 STOKE PARK DRIVE MAIDENHALL IPSWICH	SEMI DET./TERRACED		Survey Type: MANUAL SUFFOLK
	Edge of Town Residential Zone Total Number of dwellings: 230 Survey date: THURSDAY 24/05/07			
10	SH-03-A-04 ST MICHAEL'S STREET	TERRACED		Survey Type: MANUAL SHROPSHIRE
	SHREWSBURY Suburban Area (PPS6 Out of Centre) No Sub Category Total Number of dwellings: 108 Survey date: THURSDAY 11/06/09			
11	WS-03-A-04 HILLS FARM LANE BROADBRIDGE HEATH HORSHAM	MIXED HOUSES		Survey Type: MANUAL WEST SUSSEX
	Edge of Town Residential Zone Total Number of dwellings: 151 Survey date: THURSDAY 11/12/14			

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  
VEHICLES

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	11	192	0.082	11	192	0.277	11	192	0.359
08:00 - 09:00	11	192	0.148	11	192	0.403	11	192	0.551
09:00 - 10:00	11	192	0.156	11	192	0.183	11	192	0.339
10:00 - 11:00	11	192	0.141	11	192	0.185	11	192	0.326
11:00 - 12:00	11	192	0.160	11	192	0.158	11	192	0.318
12:00 - 13:00	11	192	0.185	11	192	0.175	11	192	0.360
13:00 - 14:00	11	192	0.172	11	192	0.151	11	192	0.323
14:00 - 15:00	11	192	0.176	11	192	0.189	11	192	0.365
15:00 - 16:00	11	192	0.298	11	192	0.206	11	192	0.504
16:00 - 17:00	11	192	0.310	11	192	0.190	11	192	0.500
17:00 - 18:00	11	192	0.357	11	192	0.219	11	192	0.576
18:00 - 19:00	11	192	0.252	11	192	0.196	11	192	0.448
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			<b>2.437</b>			<b>2.532</b>			<b>4.969</b>

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.

#### Parameter summary

Trip rate parameter range selected: 108 - 432 (units: )  
 Survey date date range: 01/01/07 - 11/12/14  
 Number of weekdays (Monday-Friday): 11  
 Number of Saturdays: 0  
 Number of Sundays: 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 shown. 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 Modelling Outputs



<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.0.2.5947 © Copyright TRL Limited, 2017
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk
<b>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</b>

**Filename:** 170921 Elland riorges Link\_Calderdale Way.j9

**Path:** O:\Lower Edge Road, Elland\ANALYSIS\CAPACITY\Roundabouts\Elland Riorges Link\_Calderdale Way

**Report generation date:** 21/09/2017 15:08:13

- »2017, AM
- »2017, PM
- »2022 Base, AM
- »2022 Base, PM
- »2022 Design, AM
- »2022 Design, PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2017</b>								
Arm 1	1.1	5.04	0.53	A	0.8	4.58	0.44	A
Arm 2	0.7	4.03	0.41	A	0.5	3.47	0.34	A
Arm 3	0.6	4.73	0.39	A	0.5	3.63	0.32	A
Arm 4	0.2	2.83	0.15	A	1.0	5.10	0.50	A
Arm 5	0.3	2.77	0.25	A	0.3	3.31	0.23	A
<b>2022 Base</b>								
Arm 1	1.4	5.80	0.59	A	0.9	5.18	0.49	A
Arm 2	0.8	4.39	0.45	A	0.6	3.68	0.37	A
Arm 3	0.8	5.25	0.44	A	0.5	3.85	0.35	A
Arm 4	0.2	2.94	0.16	A	1.2	5.82	0.55	A
Arm 5	0.4	2.89	0.27	A	0.3	3.54	0.26	A
<b>2022 Design</b>								
Arm 1	1.5	6.13	0.60	A	1.0	5.42	0.51	A
Arm 2	0.8	4.53	0.46	A	0.6	3.80	0.39	A
Arm 3	0.8	5.39	0.45	A	0.6	4.01	0.37	A
Arm 4	0.2	2.97	0.16	A	1.3	6.15	0.56	A
Arm 5	0.4	3.04	0.31	A	0.4	3.65	0.28	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>	(untitled)
<b>Location</b>	
<b>Site number</b>	
<b>Date</b>	21/09/2017
<b>Version</b>	
<b>Status</b>	(new file)

Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA/Optima
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	2017	AM	ONE HOUR	07:45	09:15	15
D2	2017	PM	ONE HOUR	16:30	18:00	15
D3	2022 Base	AM	ONE HOUR	07:45	09:15	15
D4	2022 Base	PM	ONE HOUR	16:30	18:00	15
D5	2022 Design	AM	ONE HOUR	07:45	09:15	15
D6	2022 Design	PM	ONE HOUR	16:30	18:00	15

## Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

# 2017, AM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	4.17	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
1	Calderdale Way (S)	
2	Elland Riorges Link (W)	
3	Calderdale Way (N)	
4	Lowfields Way	
5	Elland Riorges Link (E)	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	6.10	7.00	2.0	20.0	56.0	22.0	
2	3.65	7.50	13.0	30.0	56.0	13.0	
3	6.00	6.50	1.0	12.0	56.0	35.0	
4	5.00	8.00	10.0	13.0	56.0	33.0	
5	5.00	6.50	24.0	40.0	56.0	14.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.643	2014
2	0.624	1833
3	0.580	1783
4	0.606	1906
5	0.663	2045

*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)
D1	2017	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	746	100.000
2		✓	562	100.000
3		✓	449	100.000
4		✓	201	100.000
5		✓	395	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	458	0	262	26
	2	45	2	94	217	204
	3	0	208	1	110	130
	4	70	71	31	0	29
	5	32	214	80	69	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.53	5.04	1.1	A
2	0.41	4.03	0.7	A
3	0.39	4.73	0.6	A
4	0.15	2.83	0.2	A
5	0.25	2.77	0.3	A

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	562	507	1688	0.333	560	0.5	3.185	A
2	423	352	1614	0.262	422	0.4	3.015	A
3	338	619	1423	0.237	337	0.3	3.311	A
4	151	462	1626	0.093	151	0.1	2.440	A
5	297	321	1832	0.162	297	0.2	2.343	A



**08:00 - 08:15**

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	671	607	1624	0.413	670	0.7	3.769	A
2	505	421	1571	0.322	505	0.5	3.375	A
3	404	741	1353	0.298	403	0.4	3.789	A
4	181	553	1571	0.115	181	0.1	2.589	A
5	355	384	1790	0.198	355	0.2	2.507	A

**08:15 - 08:30**

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	821	743	1536	0.535	820	1.1	5.011	A
2	619	516	1512	0.409	618	0.7	4.024	A
3	494	907	1256	0.394	493	0.6	4.715	A
4	221	677	1496	0.148	221	0.2	2.824	A
5	435	471	1733	0.251	435	0.3	2.772	A

**08:30 - 08:45**

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	821	744	1536	0.535	821	1.1	5.039	A
2	619	516	1511	0.409	619	0.7	4.033	A
3	494	908	1255	0.394	494	0.6	4.729	A
4	221	678	1495	0.148	221	0.2	2.825	A
5	435	471	1733	0.251	435	0.3	2.773	A

**08:45 - 09:00**

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	671	609	1623	0.413	672	0.7	3.795	A
2	505	422	1570	0.322	506	0.5	3.388	A
3	404	743	1351	0.299	405	0.4	3.804	A
4	181	555	1570	0.115	181	0.1	2.591	A
5	355	385	1790	0.198	355	0.2	2.510	A

**09:00 - 09:15**

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	562	509	1687	0.333	562	0.5	3.206	A
2	423	354	1613	0.262	424	0.4	3.027	A
3	338	622	1422	0.238	338	0.3	3.326	A
4	151	464	1625	0.093	151	0.1	2.443	A
5	297	323	1831	0.162	298	0.2	2.348	A

# 2017, PM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	4.17	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)
D2	2017	PM	ONE HOUR	16:30	18:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	562	100.000
2		✓	495	100.000
3		✓	425	100.000
4		✓	634	100.000
5		✓	295	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	425	0	70	67
	2	81	0	149	66	199
	3	0	245	2	20	158
	4	192	224	123	0	95
	5	27	164	83	21	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1	2	3	4	5
1	1	0	0	0	0	0

From	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.44	4.58	0.8	A
2	0.34	3.47	0.5	A
3	0.32	3.63	0.5	A
4	0.50	5.10	1.0	A
5	0.23	3.31	0.3	A

### Main Results for each time segment

#### 16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	423	647	1598	0.265	422	0.4	3.055	A
2	373	275	1662	0.224	372	0.3	2.787	A
3	320	378	1563	0.205	319	0.3	2.890	A
4	477	564	1564	0.305	476	0.4	3.301	A
5	222	650	1614	0.138	221	0.2	2.584	A

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	505	774	1516	0.333	505	0.5	3.556	A
2	445	329	1628	0.273	445	0.4	3.041	A
3	382	453	1520	0.251	382	0.3	3.163	A
4	570	675	1497	0.381	569	0.6	3.879	A
5	265	779	1529	0.173	265	0.2	2.848	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	619	948	1405	0.440	618	0.8	4.566	A
2	545	402	1582	0.344	544	0.5	3.466	A
3	468	554	1461	0.320	467	0.5	3.621	A
4	698	827	1405	0.497	697	1.0	5.073	A
5	325	953	1413	0.230	324	0.3	3.306	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	619	949	1404	0.441	619	0.8	4.584	A
2	545	403	1582	0.345	545	0.5	3.470	A
3	468	555	1461	0.320	468	0.5	3.625	A
4	698	828	1404	0.497	698	1.0	5.097	A
5	325	955	1412	0.230	325	0.3	3.309	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS

1	505	776	1515	0.333	506	0.5	3.571	A
2	445	330	1628	0.273	446	0.4	3.046	A
3	382	454	1519	0.251	383	0.3	3.168	A
4	570	677	1496	0.381	571	0.6	3.902	A
5	265	781	1527	0.174	266	0.2	2.855	A

## 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	423	650	1597	0.265	424	0.4	3.072	A
2	373	276	1661	0.224	373	0.3	2.796	A
3	320	380	1562	0.205	320	0.3	2.898	A
4	477	567	1563	0.305	478	0.4	3.323	A
5	222	654	1612	0.138	222	0.2	2.590	A

# 2022 Base, AM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	4.63	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)
D3	2022 Base	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	800	100.000
2		✓	606	100.000
3		✓	481	100.000
4		✓	216	100.000
5		✓	423	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	491	0	281	28
	2	49	2	101	233	221
	3	0	223	1	118	139
	4	75	76	34	0	31
	5	34	229	86	74	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1	2	3	4	5
1	0	0	0	0	0	0

From	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.59	5.80	1.4	A
2	0.45	4.39	0.8	A
3	0.44	5.25	0.8	A
4	0.16	2.94	0.2	A
5	0.27	2.89	0.4	A

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	602	544	1664	0.362	600	0.6	3.375	A
2	456	378	1597	0.286	455	0.4	3.146	A
3	362	666	1396	0.259	361	0.3	3.473	A
4	163	497	1605	0.101	162	0.1	2.496	A
5	318	345	1816	0.175	318	0.2	2.401	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	719	651	1596	0.451	718	0.8	4.099	A
2	545	453	1551	0.351	544	0.5	3.573	A
3	432	797	1320	0.328	432	0.5	4.051	A
4	194	595	1545	0.126	194	0.1	2.664	A
5	380	413	1771	0.215	380	0.3	2.587	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	881	797	1502	0.587	878	1.4	5.755	A
2	667	554	1488	0.448	666	0.8	4.376	A
3	530	976	1216	0.435	528	0.8	5.225	A
4	238	729	1464	0.162	238	0.2	2.934	A
5	466	506	1710	0.272	465	0.4	2.892	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	881	798	1501	0.587	881	1.4	5.804	A
2	667	555	1487	0.449	667	0.8	4.389	A
3	530	978	1215	0.436	530	0.8	5.250	A
4	238	730	1464	0.162	238	0.2	2.936	A
5	466	506	1709	0.272	466	0.4	2.894	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS

1	719	653	1595	0.451	722	0.8	4.133	A
2	545	454	1550	0.351	546	0.5	3.590	A
3	432	800	1318	0.328	434	0.5	4.075	A
4	194	597	1544	0.126	194	0.1	2.669	A
5	380	414	1770	0.215	381	0.3	2.590	A

## 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	602	546	1663	0.362	603	0.6	3.399	A
2	456	380	1596	0.286	457	0.4	3.162	A
3	362	669	1394	0.260	363	0.4	3.491	A
4	163	500	1603	0.101	163	0.1	2.499	A
5	318	347	1815	0.175	319	0.2	2.407	A

# 2022 Base, PM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	4.60	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)
D4	2022 Base	PM	ONE HOUR	16:30	18:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	603	100.000
2		✓	531	100.000
3		✓	457	100.000
4		✓	680	100.000
5		✓	317	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	456	0	75	72
	2	87	0	160	71	213
	3	0	263	2	22	170
	4	206	240	132	0	102
	5	29	176	89	23	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1	2	3	4	5
1	0	0	0	0	0	0



From	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.49	5.18	0.9	A
2	0.37	3.68	0.6	A
3	0.35	3.85	0.5	A
4	0.55	5.82	1.2	A
5	0.26	3.54	0.3	A

### Main Results for each time segment

#### 16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	454	694	1568	0.290	452	0.4	3.223	A
2	400	295	1649	0.242	398	0.3	2.875	A
3	344	406	1547	0.222	343	0.3	2.987	A
4	512	606	1539	0.333	510	0.5	3.493	A
5	239	698	1583	0.151	238	0.2	2.675	A

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	542	831	1480	0.366	541	0.6	3.833	A
2	477	353	1613	0.296	477	0.4	3.168	A
3	411	486	1501	0.274	410	0.4	3.302	A
4	611	725	1467	0.417	610	0.7	4.199	A
5	285	835	1492	0.191	285	0.2	2.983	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	664	1017	1361	0.488	662	0.9	5.147	A
2	585	432	1564	0.374	584	0.6	3.672	A
3	503	595	1437	0.350	503	0.5	3.848	A
4	749	887	1368	0.547	747	1.2	5.776	A
5	349	1022	1368	0.255	349	0.3	3.530	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	664	1018	1359	0.488	664	0.9	5.175	A
2	585	433	1563	0.374	585	0.6	3.677	A
3	503	596	1437	0.350	503	0.5	3.855	A
4	749	889	1368	0.547	749	1.2	5.816	A
5	349	1024	1366	0.255	349	0.3	3.537	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS

1	542	833	1478	0.367	544	0.6	3.858	A
2	477	354	1612	0.296	478	0.4	3.177	A
3	411	487	1500	0.274	411	0.4	3.308	A
4	611	727	1466	0.417	613	0.7	4.234	A
5	285	838	1489	0.191	285	0.2	2.992	A

## 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	454	697	1566	0.290	455	0.4	3.243	A
2	400	296	1648	0.243	400	0.3	2.884	A
3	344	408	1546	0.223	344	0.3	2.996	A
4	512	608	1537	0.333	513	0.5	3.518	A
5	239	701	1580	0.151	239	0.2	2.683	A

# 2022 Design, AM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	4.78	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)
D5	2022 Design	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	807	100.000
2		✓	611	100.000
3		✓	488	100.000
4		✓	217	100.000
5		✓	478	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	491	0	281	35
	2	49	2	101	233	226
	3	0	223	1	118	146
	4	75	76	34	0	32
	5	53	243	105	77	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1	2	3	4	5
1	0	0	0	0	0	0

From	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.60	6.13	1.5	A
2	0.46	4.53	0.8	A
3	0.45	5.39	0.8	A
4	0.16	2.97	0.2	A
5	0.31	3.04	0.4	A

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	608	571	1647	0.369	605	0.6	3.448	A
2	460	400	1584	0.290	458	0.4	3.194	A
3	367	677	1389	0.264	366	0.4	3.513	A
4	163	512	1596	0.102	163	0.1	2.512	A
5	360	345	1816	0.198	359	0.2	2.469	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	725	684	1575	0.461	724	0.8	4.228	A
2	549	479	1535	0.358	549	0.6	3.649	A
3	439	811	1312	0.334	438	0.5	4.116	A
4	195	612	1535	0.127	195	0.1	2.686	A
5	430	413	1771	0.243	429	0.3	2.682	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	889	837	1476	0.602	886	1.5	6.072	A
2	673	586	1468	0.458	672	0.8	4.513	A
3	537	992	1207	0.445	536	0.8	5.357	A
4	239	749	1452	0.165	239	0.2	2.967	A
5	526	506	1710	0.308	526	0.4	3.038	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	889	838	1476	0.602	888	1.5	6.132	A
2	673	587	1467	0.458	673	0.8	4.530	A
3	537	994	1206	0.446	537	0.8	5.385	A
4	239	751	1451	0.165	239	0.2	2.969	A
5	526	506	1709	0.308	526	0.4	3.042	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS

1	725	685	1574	0.461	728	0.9	4.269	A
2	549	480	1534	0.358	550	0.6	3.667	A
3	439	814	1310	0.335	440	0.5	4.142	A
4	195	615	1534	0.127	195	0.1	2.692	A
5	430	414	1770	0.243	430	0.3	2.688	A

**09:00 - 09:15**

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	608	574	1646	0.369	609	0.6	3.477	A
2	460	402	1583	0.291	461	0.4	3.209	A
3	367	681	1387	0.265	368	0.4	3.532	A
4	163	514	1594	0.102	163	0.1	2.515	A
5	360	347	1815	0.198	360	0.2	2.475	A

# 2022 Design, PM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	4.80	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)
D6	2022 Design	PM	ONE HOUR	16:30	18:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	620	100.000
2		✓	543	100.000
3		✓	473	100.000
4		✓	683	100.000
5		✓	345	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	456	0	75	89
	2	87	0	160	71	225
	3	0	263	2	22	186
	4	206	240	132	0	105
	5	39	183	99	24	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1	2	3	4	5
1	0	0	0	0	0	0

From	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.51	5.42	1.0	A
2	0.39	3.80	0.6	A
3	0.37	4.01	0.6	A
4	0.56	6.15	1.3	A
5	0.28	3.65	0.4	A

### Main Results for each time segment

#### 16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	467	707	1559	0.299	465	0.4	3.286	A
2	409	316	1636	0.250	407	0.3	2.927	A
3	356	428	1534	0.232	355	0.3	3.050	A
4	514	639	1519	0.339	512	0.5	3.569	A
5	260	698	1583	0.164	259	0.2	2.718	A

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	557	847	1470	0.379	557	0.6	3.939	A
2	488	378	1598	0.306	488	0.4	3.244	A
3	425	513	1485	0.286	425	0.4	3.396	A
4	614	765	1442	0.426	613	0.7	4.337	A
5	310	835	1492	0.208	310	0.3	3.046	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	683	1036	1348	0.506	681	1.0	5.385	A
2	598	463	1545	0.387	597	0.6	3.794	A
3	521	628	1418	0.367	520	0.6	4.004	A
4	752	937	1338	0.562	750	1.3	6.096	A
5	380	1022	1368	0.278	379	0.4	3.640	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	683	1038	1347	0.507	683	1.0	5.421	A
2	598	464	1544	0.387	598	0.6	3.803	A
3	521	629	1418	0.367	521	0.6	4.013	A
4	752	938	1337	0.562	752	1.3	6.147	A
5	380	1024	1366	0.278	380	0.4	3.648	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS

1	557	850	1468	0.380	559	0.6	3.969	A
2	488	379	1597	0.306	489	0.4	3.253	A
3	425	514	1484	0.287	426	0.4	3.403	A
4	614	767	1441	0.426	616	0.7	4.374	A
5	310	838	1489	0.208	311	0.3	3.057	A

## 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	467	711	1557	0.300	468	0.4	3.305	A
2	409	317	1635	0.250	409	0.3	2.938	A
3	356	430	1533	0.232	356	0.3	3.063	A
4	514	642	1517	0.339	515	0.5	3.596	A
5	260	701	1580	0.164	260	0.2	2.728	A



<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
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Filename: (new file)

Path:

Report generation date: 21/09/2017 14:27:41

»Design 2022, AM

»Design 2022, PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Design 2022								
Stream B-AC	1.3	21.09	0.58	C	0.3	11.87	0.22	B
Stream C-AB	0.4	6.39	0.21	A	0.2	5.86	0.10	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	(untitled)
Location	
Site number	
Date	21/09/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	Design 2022	AM	ONE HOUR	07:45	09:15	15
D2	Design 2022	PM	ONE HOUR	16:30	18:00	15

**Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000

# Design 2022, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

## Junction Network

### Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	5.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		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	5.70			100.0	✓	0.00

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

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.38	13	13

## 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
1	B-A	507	0.093	0.236	0.149	0.338
1	B-C	656	0.102	0.257	-	-
1	C-B	632	0.248	0.248	-	-

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

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

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Design 2022	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	425	100.000
B		✓	212	100.000
C		✓	340	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	129	296
	B	129	0	83
	C	256	84	0

## Vehicle Mix

### Heavy Vehicle Percentages

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

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.58	21.09	1.3	C
C-AB	0.21	6.39	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	160	453	0.352	157	0.5	12.087	B
C-AB	88	686	0.128	87	0.2	6.008	A
C-A	168			168			
A-B	97			97			
A-C	223			223			

#### 08:00 - 08:15

Stream	Total Demand	Capacity	RFC	Throughput	End queue	Delay (s)	LOS
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	(PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		
B-AC	191	433	0.441	190	0.8	14.759	B
C-AB	113	699	0.162	113	0.3	6.145	A
C-A	193			193			
A-B	116			116			
A-C	266			266			

## 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	233	404	0.578	231	1.3	20.607	C
C-AB	153	717	0.213	152	0.4	6.379	A
C-A	221			221			
A-B	142			142			
A-C	326			326			

## 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	233	404	0.578	233	1.3	21.087	C
C-AB	153	717	0.213	153	0.4	6.393	A
C-A	221			221			
A-B	142			142			
A-C	326			326			

## 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	191	432	0.441	193	0.8	15.144	C
C-AB	113	699	0.162	114	0.3	6.163	A
C-A	193			193			
A-B	116			116			
A-C	266			266			

## 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	160	453	0.352	161	0.6	12.354	B
C-AB	88	686	0.129	89	0.2	6.031	A
C-A	168			168			
A-B	97			97			
A-C	223			223			

# Design 2022, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

## Junction Network

### Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	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)
D2	Design 2022	PM	ONE HOUR	16:30	18:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	500	100.000
B		✓	78	100.000
C		✓	276	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	61	439
	B	47	0	31
	C	237	39	0

## Vehicle Mix

### Heavy Vehicle Percentages

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

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.22	11.87	0.3	B
C-AB	0.10	5.86	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	59	443	0.132	58	0.2	9.333	A
C-AB	40	664	0.061	40	0.1	5.769	A
C-A	168			168			
A-B	46			46			
A-C	331			331			

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	70	421	0.167	70	0.2	10.257	B
C-AB	51	672	0.077	51	0.1	5.804	A
C-A	197			197			
A-B	55			55			
A-C	395			395			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	86	389	0.221	86	0.3	11.838	B
C-AB	70	685	0.102	69	0.2	5.854	A
C-A	234			234			
A-B	67			67			
A-C	483			483			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	86	389	0.221	86	0.3	11.866	B
C-AB	70	685	0.102	70	0.2	5.858	A
C-A	234			234			
A-B	67			67			
A-C	483			483			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	70	421	0.167	70	0.2	10.290	B
C-AB	52	672	0.077	52	0.1	5.811	A
C-A	197			197			
A-B	55			55			
A-C	395			395			

## 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	59	443	0.133	59	0.2	9.375	A
C-AB	40	664	0.061	40	0.1	5.781	A
C-A	167			167			
A-B	46			46			
A-C	331			331			