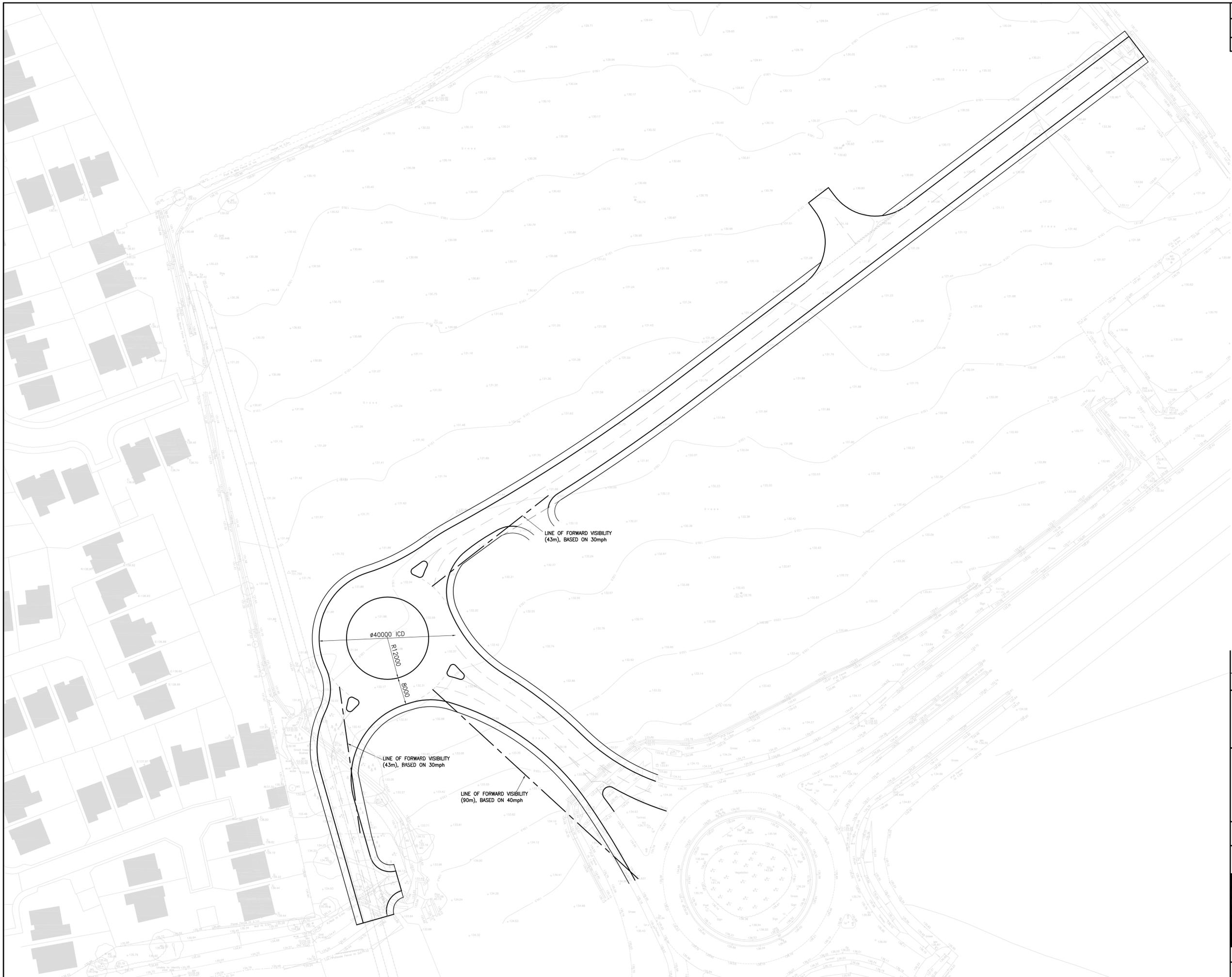


Appendix F JPG Potential Roundabout Arrangement

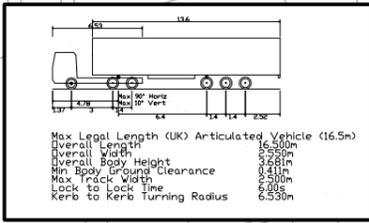




REV	DESCRIPTION	DATE	BY
Job Title PROPOSED DEVELOPMENT ROCKINGHAM 1 DEARNE VALLEY PARKWAY BARNSELY			
Drawing Title ACCESS ROAD FUTURE ROUNDABOUT LAYOUT DRAFT			
PRELIMINARY			
Architect THE HARRIS PARTNERSHIP			
 5 John Charles Way, Leeds LS12 6QA CIVIL & STRUCTURAL ENGINEERING T: 0113 263 1155 www.jpgleeds.com F: 0113 263 0405			
Checked	Date	Scale	A1 Drawn
	14.08.14	1:500	AMF
Drawing No		4652-R20	

Appendix G Roundabout Swept Paths





PROJECT		CLIENT		 OPTIMA Intelligent Highways Solutions Atlas House, 31 King Street, Leeds, LS1 2HL T 0113 245 1679 F 0113 245 9042			
ROCKINGHAM PHASE 1		HARWORTH ESTATES					
A	03/09/14	TP	INITIAL ISSUE			RAM	RAM
REV	DATE	BY	DESCRIPTION			CHK	APP
DRAWING TITLE		CHECKED	APPROVED	DRG No.			
SWEEP PATH ANALYSIS OF POTENTIAL FUTURE ROUNDABOUT PROVISION		RAM	AB	12004/ATR/03			
STATUS		DRAWN BY:	SCALE @ A3	DATE	REV.		
INFORMATION		TP	1:1000	03/09/14	A		

Appendix H Spreadsheet SD1 and Hoyland West Boundary Plan



Spreadsheet SD1 - Journey to Work Data

2001 census - UK travel flows (ward)
 ONS Crown Copyright Reserved [from Nomis on 27 May 2014]
 T203:27 (Car - driver : Not full-time student: in employment full-time)

area of residence2003 CAS ward	Area of Work Place 00CCFM : Hoyland West		M1(N)	M1(S)	A61	Sheffield Road (N)	Ryecroft Bank	A6195	Sheffield Road (S)	Check Count
00BLFF : Burnden	3	0.26%	0.26%							0.0000%
00BTFD : Ashton Waterloo	3	0.26%	0.26%							0.0000%
00BTFJ : Droylsden East	3	0.26%	0.26%							0.0000%
00CCFA : Ardsley	20	1.76%						1.76%		0.0000%
00CCFB : Athersley	8	0.70%				0.70%				0.0000%
00CCFC : Brierley	8	0.70%						0.70%		0.0000%
00CCFD : Central	18	1.58%	0.79%			0.79%				0.0000%
00CCFE : Cudworth	16	1.41%						1.41%		0.0000%
00CCFF : Darfield	20	1.76%						1.76%		0.0000%
00CCFG : Darton	19	1.67%	1.67%							0.0000%
00CCFH : Deame South	9	0.79%						0.79%		0.0000%
00CCFJ : Deame Thurnscoe	10	0.88%						0.88%		0.0000%
00CCFK : Dodworth	44	3.87%	3.87%							0.0000%
00CCFL : Hoyland East	79	6.94%					6.94%			0.0000%
00CCFM : Hoyland West	173	15.20%					7.60%		7.60%	0.0000%
00CCFN : Monk Bretton	17	1.49%						1.49%		0.0000%
00CCFP : North West	17	1.49%				1.49%				0.0000%
00CCFQ : Park	14	1.23%				1.23%				0.0000%
00CCFR : Penistone East	40	3.51%	1.76%		1.76%					0.0000%
00CCFS : Penistone West	7	0.62%			0.62%					0.0000%
00CCFT : Royston	17	1.49%				0.75%		0.75%		0.0000%
00CCFU : South West	29	2.55%				2.55%				0.0000%
00CCFW : Wombwell North	28	2.46%						2.46%		0.0000%
00CCFX : Wombwell South	49	4.31%						4.31%		0.0000%
00CCFY : Worsbrough	28	2.46%				1.23%		1.23%		0.0000%
00CEFB : Armthorpe	4	0.35%		0.35%						0.0000%
00CEFE : Bentley Central	3	0.26%						0.26%		0.0000%
00CEFF : Bentley North Road	3	0.26%						0.26%		0.0000%
00CEFJ : Conisbrough	6	0.53%						0.53%		0.0000%
00CEFN : Mexborough	8	0.70%						0.70%		0.0000%
00CEFP : Richmond	4	0.35%						0.35%		0.0000%
00CEFR : South East	4	0.35%						0.35%		0.0000%
00CEFS : Southern Parks	7	0.62%		0.62%						0.0000%
00CEFW : Town Field	3	0.26%		0.26%						0.0000%
00CFFA : Anston and Woodsetts	3	0.26%		0.26%						0.0000%
00CFFB : Aston, Orgreave and Ulley	4	0.35%		0.35%						0.0000%
00CFFC : Boston	3	0.26%		0.26%						0.0000%
00CFFD : Bentley, Ravenfield and Wickersley	7	0.62%		0.62%						0.0000%
00CFFE : Brampton, Melton and Wentworth	15	1.32%		1.32%						0.0000%
00CFFG : Brinsworth, Catcliffe and Treeton	11	0.97%		0.97%						0.0000%
00CFFH : Broom	4	0.35%		0.35%						0.0000%
00CFFI : Hooton Roberts and Thrybergh	3	0.26%		0.26%						0.0000%
00CFFJ : Greasbrough	5	0.44%		0.44%						0.0000%
00CFFK : Kimberworth	3	0.26%		0.26%						0.0000%
00CFFL : Kiveton Park	3	0.26%		0.26%						0.0000%
00CFFM : Maltby	3	0.26%		0.26%						0.0000%
00CFFN : Park	3	0.26%		0.26%						0.0000%
00CFFO : Rawmarsh West	7	0.62%						0.62%		0.0000%
00CFFP : St. John's	3	0.26%		0.26%						0.0000%
00CFFQ : Swinton	9	0.79%						0.79%		0.0000%
00CFFR : Thorpe Hesley	8	0.70%		0.70%						0.0000%
00CFFS : Wath	12	1.05%						1.05%		0.0000%
00CGFA : Beauchief	3	0.26%		0.26%						0.0000%
00CGFB : Birley	3	0.26%			0.26%					0.0000%
00CGFC : Brightside	5	0.44%		0.44%						0.0000%
00CGFE : Burngreave	3	0.26%		0.26%						0.0000%
00CGFF : Castle	3	0.26%		0.26%						0.0000%
00CGFG : Chapel Green	26	2.28%							2.28%	0.0000%
00CGFH : Darnall	3	0.26%		0.26%						0.0000%
00CGFI : Dore	3	0.26%		0.26%						0.0000%
00CGFJ : Ecclesall	5	0.44%		0.44%						0.0000%
00CGFK : Firth Park	4	0.35%		0.35%						0.0000%
00CGFL : Hallam	4	0.35%		0.35%						0.0000%
00CGFM : Handsworth	4	0.35%		0.35%						0.0000%
00CGFN : Heeley	3	0.26%		0.26%						0.0000%
00CGFO : Hillsborough	3	0.26%			0.26%					0.0000%
00CGFP : Mosborough	6	0.53%		0.53%						0.0000%
00CGFQ : Nether Shire	3	0.26%		0.26%						0.0000%

00CGGA : Park	3	0.26%		0.26%						0.0000%
00CGGD : South Wortley	10	0.88%			0.88%					0.0000%
00CGGE : Stocksbridge	6	0.53%			0.53%					0.0000%
00CGGF : Walkley	5	0.44%			0.44%					0.0000%
00CJFY : Walkergate	3	0.26%	0.26%							0.0000%
00CMFJ : Houghton	3	0.26%	0.26%							0.0000%
00CXFD : Bolton	3	0.26%	0.26%							0.0000%
00CYFL : Rastrick	3	0.26%	0.26%							0.0000%
00CZFB : Batley East	3	0.26%	0.26%							0.0000%
00CZFG : Colne Valley West	3	0.26%	0.26%							0.0000%
00CZFJ : Dalton	3	0.26%	0.26%							0.0000%
00CZFL : Denby Dale	4	0.35%	0.35%							0.0000%
00CZFS : Holme Valley South	3	0.26%	0.26%							0.0000%
00CZFT : Kirkburton	3	0.26%	0.26%							0.0000%
00CZFW : Mirfield	3	0.26%	0.26%							0.0000%
00CZFY : Paddock	3	0.26%	0.26%							0.0000%
00CZFZ : Spen	6	0.53%	0.53%							0.0000%
00DAFC : Barwick and Kippax	3	0.26%	0.26%							0.0000%
00DAFG : Chapel Allerton	3	0.26%	0.26%							0.0000%
00DAFL : Halton	3	0.26%	0.26%							0.0000%
00DAFM : Harehills	5	0.44%	0.44%							0.0000%
00DAFW : Morley South	3	0.26%	0.26%							0.0000%
00DAFX : North	3	0.26%	0.26%							0.0000%
00DAFZ : Pudsey North	3	0.26%	0.26%							0.0000%
00DAGD : Roundhay	3	0.26%	0.26%							0.0000%
00DAGH : Wetherby	3	0.26%	0.26%							0.0000%
00DBFC : Castleford Whitwood	5	0.44%	0.44%							0.0000%
00DBFD : Crofton and Ackworth	7	0.62%	0.62%							0.0000%
00DBFE : Featherstone	3	0.26%	0.26%							0.0000%
00DBFF : Hemsworth	3	0.26%	0.26%							0.0000%
00DBFG : Horbury	5	0.44%	0.44%							0.0000%
00DBFK : Ossett	4	0.35%	0.35%							0.0000%
00DBFL : Pontefract North	3	0.26%	0.26%							0.0000%
00DBFN : South Elmsall	3	0.26%	0.26%							0.0000%
00DBFQ : Stanley and Altofts	5	0.44%	0.44%							0.0000%
DBFR : Stanley and Wrenthorpe	4	0.35%	0.35%							0.0000%
00DBFS : Wakefield Central	4	0.35%	0.35%							0.0000%
00DBFT : Wakefield East	3	0.26%	0.26%							0.0000%
00DBFU : Wakefield North	4	0.35%	0.35%							0.0000%
00DBFW : Wakefield Rural	8	0.70%	0.70%							0.0000%
00DBFX : Wakefield South	4	0.35%	0.35%							0.0000%
FDMZ : Broughton and Appleby	3	0.26%		0.13%			0.13%			0.0000%
00FDNF : Frodingham	3	0.26%		0.13%			0.13%			0.0000%
00FFNU : Holgate	3	0.26%	0.26%							0.0000%
00FKNC : Boulton	3	0.26%		0.26%						0.0000%
00FKNL : Normanton	3	0.26%		0.26%						0.0000%
13UBHL : Vicars Cross	3	0.26%	0.26%							0.0000%
17UBGQ : Heanor West	3	0.26%		0.26%						0.0000%
17UDGQ : Walton	3	0.26%		0.26%						0.0000%
17UGGM : Kirk Hallam	3	0.26%		0.26%						0.0000%
17UGGT : Old Park	3	0.26%		0.26%						0.0000%
17UHHE : Tintwistle	3	0.26%		0.26%						0.0000%
17UJGT : Killamarsh East	3	0.26%		0.26%						0.0000%
20UBGH : Pelton Fell	3	0.26%	0.26%							0.0000%
20UGGA : Broom	3	0.26%	0.26%							0.0000%
20UGGC : Chilton	3	0.26%	0.26%							0.0000%
30ULGT : Ribchester	3	0.26%	0.26%							0.0000%
33UFHM : Scottow	3	0.26%		0.26%						0.0000%
33UGFZ : Mile Cross	3	0.26%		0.26%						0.0000%
35UDHG : South Beach	3	0.26%	0.26%							0.0000%
36UDHU : Stray	3	0.26%	0.26%							0.0000%
36UEGQ : Leyburn	3	0.26%	0.26%							0.0000%
37UFGM : Ravensdale	3	0.26%	0.26%							0.0000%
41UCGT : Stretton	3	0.26%		0.26%						0.0000%
Column Total	1,138	100.0%	23.55%	15.82%	4.75%	8.74%	14.54%	22.72%	9.89%	0.00%

Appendix I TRICS



TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : D - INDUSTRIAL ESTATE
 VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	CW CORNWALL	1 days
	DV DEVON	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	CB CUMBRIA	1 days
	NB NORTHUMBERLAND	1 days
	TW TYNE & WEAR	1 days
11	SCOTLAND	
	AG ANGUS	1 days
	EA EAST AYRSHIRE	1 days
	FA FALKIRK	1 days
	HI HIGHLAND	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: Gross floor area
 Actual Range: 552 to 64889 (units: sqm)
 Range Selected by User: 3000 to 13000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 04/10/13

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	3 days
Wednesday	3 days
Thursday	1 days
Friday	4 days

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

Selected survey types:

Manual count	15 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:

Edge of Town Centre	3
Edge of Town	8
Neighbourhood Centre (PPS6 Local Centre)	3
Free Standing (PPS6 Out of Town)	1

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:

Industrial Zone	5
Commercial Zone	1
Residential Zone	4
Village	2
Out of Town	1
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.

Filtering Stage 3 selection:

Use Class:

B1	4 days
B2	8 days
B8	2 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	4 days
1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	3 days
20,001 to 25,000	2 days
25,001 to 50,000	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	3 days
25,001 to 50,000	2 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	2 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:

0.5 or Less	1 days
0.6 to 1.0	6 days
1.1 to 1.5	8 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:

No	15 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	AG-02-D-01 WESTWAY	INDUSTRIAL EST.	ANGUS
	ARBROATH Edge of Town Residential Zone Total Gross floor area: 64889 sqm Survey date: FRIDAY 25/05/12		
2	CA-02-D-02 COLDHAM'S ROAD COLDHAM'S COMMON CAMBRIDGE	IND. ESTATE	CAMBRIDGESHIRE
	Edge of Town Industrial Zone Total Gross floor area: 2063 sqm Survey date: MONDAY 19/10/09		
3	CB-02-D-04 CARLISLE ROAD	INDUSTRIAL ESTATE	CUMBRIA
	BRAMPTON Edge of Town No Sub Category Total Gross floor area: 17708 sqm Survey date: WEDNESDAY 16/12/09		
4	CW-02-D-03 LONG ROCK ROAD LONG ROCK NEAR PENZANCE	IND. ESTATE	CORNWALL
	Neighbourhood Centre (PPS6 Local Centre) Village Total Gross floor area: 36500 sqm Survey date: MONDAY 03/10/11		
5	DV-02-D-06 ST MODWEN ROAD	INDUSTRIAL ESTATE	DEVON
	PLYMOUTH Edge of Town Industrial Zone Total Gross floor area: 1775 sqm Survey date: TUESDAY 17/07/12		
6	EA-02-D-02 JAMES LITTLE STREET	INDUSTRIAL EST.	EAST AYRSHIRE
	KILMARNOCK Edge of Town Centre Industrial Zone Total Gross floor area: 552 sqm Survey date: WEDNESDAY 11/06/08		
7	FA-02-D-03 LADYSMILL	INDUSTRIAL ESTATE	FALKIRK
	FALKIRK Edge of Town Centre Commercial Zone Total Gross floor area: 1250 sqm Survey date: FRIDAY 31/05/13		

Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	HI-02-D-03 NORTH ROAD INVERLOCHY FORT WILLIAM Edge of Town No Sub Category Total Gross floor area: 35000 sqm Survey date: MONDAY 18/05/09	IND. ESTATE & BUS. PARK	HIGHLAND	Survey Type: MANUAL
9	LC-02-D-05 APPLEBY STREET BLACKBURN Edge of Town Centre Industrial Zone Total Gross floor area: 7020 sqm Survey date: TUESDAY 04/06/13	INDUSTRIAL ESTATE	LANCASHIRE	Survey Type: MANUAL
10	LN-02-D-02 STATION ROAD SWINESHEAD NEAR BOSTON Neighbourhood Centre (PPS6 Local Centre) Village Total Gross floor area: 4600 sqm Survey date: TUESDAY 11/12/12	INDUSTRIAL ESTATE	LINCOLNSHIRE	Survey Type: MANUAL
11	MS-02-D-06 BOALER STREET LIVERPOOL Neighbourhood Centre (PPS6 Local Centre) Industrial Zone Total Gross floor area: 4800 sqm Survey date: THURSDAY 09/09/10	INDUSTRIAL EST.	MERSEYSIDE	Survey Type: MANUAL
12	NB-02-D-02 OLDSTONE ROAD EAST CRAMLINGTON NEAR CRAMLINGTON Free Standing (PPS6 Out of Town) Out of Town Total Gross floor area: 5500 sqm Survey date: FRIDAY 16/11/12	INDUSTRIAL ESTATE	NORTHUMBERLAND	Survey Type: MANUAL
13	NF-02-D-03 BIDEWELL CLOSE NORWICH Edge of Town Residential Zone Total Gross floor area: 6000 sqm Survey date: MONDAY 08/10/12	INDUSTRIAL ESTATE	NORFOLK	Survey Type: MANUAL
14	TW-02-D-07 SWALWELL BANK WHICKHAM GATESHEAD Edge of Town Residential Zone Total Gross floor area: 6800 sqm Survey date: FRIDAY 04/10/13	INDUSTRIAL ESTATE	TYNE & WEAR	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	WM-02-D-02 DUNLOP WAY	INDUSTRIAL ESTATE	WEST MIDLANDS
	BIRMINGHAM		
	Edge of Town		
	Residential Zone		
	Total Gross floor area:	23480 sqm	
	Survey date: WEDNESDAY	07/11/12	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 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	15	14333	0.137	15	14333	0.041	15	14333	0.178
07:30 - 08:00	15	14333	0.254	15	14333	0.072	15	14333	0.326
08:00 - 08:30	15	14333	0.239	15	14333	0.130	15	14333	0.369
08:30 - 09:00	15	14333	0.226	15	14333	0.136	15	14333	0.362
09:00 - 09:30	15	14333	0.170	15	14333	0.134	15	14333	0.304
09:30 - 10:00	15	14333	0.159	15	14333	0.128	15	14333	0.287
10:00 - 10:30	15	14333	0.148	15	14333	0.143	15	14333	0.291
10:30 - 11:00	15	14333	0.123	15	14333	0.117	15	14333	0.240
11:00 - 11:30	15	14333	0.126	15	14333	0.128	15	14333	0.254
11:30 - 12:00	15	14333	0.143	15	14333	0.152	15	14333	0.295
12:00 - 12:30	15	14333	0.146	15	14333	0.153	15	14333	0.299
12:30 - 13:00	15	14333	0.167	15	14333	0.183	15	14333	0.350
13:00 - 13:30	15	14333	0.154	15	14333	0.170	15	14333	0.324
13:30 - 14:00	15	14333	0.172	15	14333	0.129	15	14333	0.301
14:00 - 14:30	15	14333	0.136	15	14333	0.139	15	14333	0.275
14:30 - 15:00	15	14333	0.136	15	14333	0.127	15	14333	0.263
15:00 - 15:30	15	14333	0.148	15	14333	0.148	15	14333	0.296
15:30 - 16:00	15	14333	0.112	15	14333	0.154	15	14333	0.266
16:00 - 16:30	15	14333	0.145	15	14333	0.215	15	14333	0.360
16:30 - 17:00	15	14333	0.113	15	14333	0.198	15	14333	0.311
17:00 - 17:30	15	14333	0.066	15	14333	0.252	15	14333	0.318
17:30 - 18:00	15	14333	0.046	15	14333	0.145	15	14333	0.191
18:00 - 18:30	15	14333	0.036	15	14333	0.085	15	14333	0.121
18:30 - 19:00	15	14333	0.030	15	14333	0.061	15	14333	0.091
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.332			3.340			6.672

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:	552 - 64889 (units: sqm)
Survey date date range:	01/01/08 - 04/10/13
Number of weekdays (Monday-Friday):	15
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : F - WAREHOUSING (COMMERCIAL)
 OGVS

Selected regions and areas:

05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
10	WALES	
	WR WREXHAM	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: Gross floor area
 Actual Range: 1900 to 9000 (units: sqm)
 Range Selected by User: 1850 to 20000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 18/10/11

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:

Tuesday	2 days
Wednesday	1 days

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

Selected survey types:

Manual count	3 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:

Edge of Town Centre	2
Free Standing (PPS6 Out of Town)	1

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:

Industrial Zone	2
Commercial Zone	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:

B8 2 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
25,001 to 50,000 2 days

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

Population within 5 miles:

50,001 to 75,000 1 days
125,001 to 250,000 1 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 2 days
1.1 to 1.5 1 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:

No 3 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	DS-02-F-01	ARMADILLO S. STORAGE		DERBYSHIRE
		FORRESTERS BUSINESS P..		
		SINFIN LANE		
		DERBY		
		Edge of Town Centre		
		Commercial Zone		
		Total Gross floor area:	1900 sqm	
		Survey date: TUESDAY	05/07/11	Survey Type: MANUAL
2	WM-02-F-01	LEGETT LOGIS.		WEST MIDLANDS
		SAMPSON ROAD NORTH		
		BIRMINGHAM		
		Edge of Town Centre		
		Industrial Zone		
		Total Gross floor area:	4000 sqm	
		Survey date: WEDNESDAY	17/06/09	Survey Type: MANUAL
3	WR-02-F-01	WAREHOUSE		WREXHAM
		UNIT 1-2 PACIFIC PARK		
		WREXHAM IND. ESTATE		
		NEAR WREXHAM		
		Free Standing (PPS6 Out of Town)		
		Industrial Zone		
		Total Gross floor area:	9000 sqm	
		Survey date: TUESDAY	18/10/11	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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	4967	0.007	3	4967	0.007	3	4967	0.014
07:30 - 08:00	3	4967	0.007	3	4967	0.007	3	4967	0.014
08:00 - 08:30	3	4967	0.000	3	4967	0.007	3	4967	0.007
08:30 - 09:00	3	4967	0.007	3	4967	0.000	3	4967	0.007
09:00 - 09:30	3	4967	0.007	3	4967	0.007	3	4967	0.014
09:30 - 10:00	3	4967	0.000	3	4967	0.000	3	4967	0.000
10:00 - 10:30	3	4967	0.013	3	4967	0.000	3	4967	0.013
10:30 - 11:00	3	4967	0.007	3	4967	0.020	3	4967	0.027
11:00 - 11:30	3	4967	0.013	3	4967	0.020	3	4967	0.033
11:30 - 12:00	3	4967	0.000	3	4967	0.000	3	4967	0.000
12:00 - 12:30	3	4967	0.020	3	4967	0.007	3	4967	0.027
12:30 - 13:00	3	4967	0.013	3	4967	0.000	3	4967	0.013
13:00 - 13:30	3	4967	0.027	3	4967	0.000	3	4967	0.027
13:30 - 14:00	3	4967	0.020	3	4967	0.007	3	4967	0.027
14:00 - 14:30	3	4967	0.047	3	4967	0.020	3	4967	0.067
14:30 - 15:00	3	4967	0.034	3	4967	0.013	3	4967	0.047
15:00 - 15:30	3	4967	0.020	3	4967	0.020	3	4967	0.040
15:30 - 16:00	3	4967	0.007	3	4967	0.007	3	4967	0.014
16:00 - 16:30	3	4967	0.007	3	4967	0.007	3	4967	0.014
16:30 - 17:00	3	4967	0.034	3	4967	0.020	3	4967	0.054
17:00 - 17:30	3	4967	0.007	3	4967	0.007	3	4967	0.014
17:30 - 18:00	3	4967	0.000	3	4967	0.020	3	4967	0.020
18:00 - 18:30	3	4967	0.007	3	4967	0.007	3	4967	0.014
18:30 - 19:00	3	4967	0.000	3	4967	0.027	3	4967	0.027
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.304			0.230			0.534

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:	1900 - 9000 (units: sqm)
Survey date date range:	01/01/08 - 18/10/11
Number of weekdays (Monday-Friday):	3
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : F - WAREHOUSING (COMMERCIAL)
 VEHICLES

Selected regions and areas:

05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
10	WALES	
	WR WREXHAM	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: Gross floor area
 Actual Range: 1900 to 9000 (units: sqm)
 Range Selected by User: 1850 to 20000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 18/10/11

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:

Tuesday	2 days
Wednesday	1 days

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

Selected survey types:

Manual count	3 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:

Edge of Town Centre	2
Free Standing (PPS6 Out of Town)	1

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:

Industrial Zone	2
Commercial Zone	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:

B8 2 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
25,001 to 50,000 2 days

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

Population within 5 miles:

50,001 to 75,000 1 days
125,001 to 250,000 1 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 2 days
1.1 to 1.5 1 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:

No 3 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	DS-02-F-01	ARMADILLO S. STORAGE		DERBYSHIRE
		FORRESTERS BUSINESS P..		
		SINFIN LANE		
		DERBY		
		Edge of Town Centre		
		Commercial Zone		
		Total Gross floor area:	1900 sqm	
		Survey date: TUESDAY	05/07/11	Survey Type: MANUAL
2	WM-02-F-01	LEGETT LOGIS.		WEST MIDLANDS
		SAMPSON ROAD NORTH		
		BIRMINGHAM		
		Edge of Town Centre		
		Industrial Zone		
		Total Gross floor area:	4000 sqm	
		Survey date: WEDNESDAY	17/06/09	Survey Type: MANUAL
3	WR-02-F-01	WAREHOUSE		WREXHAM
		UNIT 1-2 PACIFIC PARK		
		WREXHAM IND. ESTATE		
		NEAR WREXHAM		
		Free Standing (PPS6 Out of Town)		
		Industrial Zone		
		Total Gross floor area:	9000 sqm	
		Survey date: TUESDAY	18/10/11	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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	4967	0.040	3	4967	0.020	3	4967	0.060
07:30 - 08:00	3	4967	0.040	3	4967	0.027	3	4967	0.067
08:00 - 08:30	3	4967	0.027	3	4967	0.013	3	4967	0.040
08:30 - 09:00	3	4967	0.094	3	4967	0.020	3	4967	0.114
09:00 - 09:30	3	4967	0.034	3	4967	0.034	3	4967	0.068
09:30 - 10:00	3	4967	0.040	3	4967	0.020	3	4967	0.060
10:00 - 10:30	3	4967	0.020	3	4967	0.020	3	4967	0.040
10:30 - 11:00	3	4967	0.020	3	4967	0.040	3	4967	0.060
11:00 - 11:30	3	4967	0.040	3	4967	0.027	3	4967	0.067
11:30 - 12:00	3	4967	0.034	3	4967	0.013	3	4967	0.047
12:00 - 12:30	3	4967	0.054	3	4967	0.067	3	4967	0.121
12:30 - 13:00	3	4967	0.074	3	4967	0.027	3	4967	0.101
13:00 - 13:30	3	4967	0.060	3	4967	0.067	3	4967	0.127
13:30 - 14:00	3	4967	0.040	3	4967	0.060	3	4967	0.100
14:00 - 14:30	3	4967	0.074	3	4967	0.107	3	4967	0.181
14:30 - 15:00	3	4967	0.060	3	4967	0.054	3	4967	0.114
15:00 - 15:30	3	4967	0.054	3	4967	0.040	3	4967	0.094
15:30 - 16:00	3	4967	0.034	3	4967	0.040	3	4967	0.074
16:00 - 16:30	3	4967	0.027	3	4967	0.040	3	4967	0.067
16:30 - 17:00	3	4967	0.060	3	4967	0.047	3	4967	0.107
17:00 - 17:30	3	4967	0.027	3	4967	0.094	3	4967	0.121
17:30 - 18:00	3	4967	0.007	3	4967	0.060	3	4967	0.067
18:00 - 18:30	3	4967	0.007	3	4967	0.020	3	4967	0.027
18:30 - 19:00	3	4967	0.000	3	4967	0.027	3	4967	0.027
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.967			0.984			1.951

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:	1900 - 9000 (units: sqm)
Survey date date range:	01/01/08 - 18/10/11
Number of weekdays (Monday-Friday):	3
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	NR NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
10	WALES	
	CO CONWY	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	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: Gross floor area
 Actual Range: 220 to 475 (units: sqm)
 Range Selected by User: 182 to 600 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 21/10/14

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:

Tuesday	2 days
Wednesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	5 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)	3
Edge of Town	2

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:

Commercial Zone	1
Residential Zone	2
Out of Town	1
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:

A3	3 days
A5	2 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:

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

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

Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	2 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	3 days
1.1 to 1.5	2 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:

No	5 days
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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	CA-06-D-01	MCDONALDS		CAMBRIDGESHIRE
	NEWMARKET ROAD			
	CAMBRIDGE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		450 sqm	
	Survey date:	WEDNESDAY	19/10/11	Survey Type: MANUAL
2	CO-06-D-01	MCDONALD'S		CONWY
	RHUDDLAN ROAD			
	ABERGELE			
	Edge of Town			
	Out of Town			
	Total Gross floor area:		410 sqm	
	Survey date:	FRIDAY	21/10/11	Survey Type: MANUAL
3	EB-06-D-01	MCDONALDS		CITY OF EDINBURGH
	GYLEMUIR ROAD			
	EDINBURGH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		475 sqm	
	Survey date:	WEDNESDAY	18/06/08	Survey Type: MANUAL
4	NR-06-D-01	MCDONALDS		NORTHAMPTONSHIRE
	MARQUEE DRIVE			
	NORTHAMPTON			
	Edge of Town			
	Commercial Zone			
	Total Gross floor area:		220 sqm	
	Survey date:	TUESDAY	22/05/07	Survey Type: MANUAL
5	WM-06-D-01	BURGER KING		WEST MIDLANDS
	KINGSBURY ROAD			
	ERDINGTON			
	BIRMINGHAM			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Gross floor area:		250 sqm	
	Survey date:	TUESDAY	25/11/08	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 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	430	3.721	2	430	2.907	2	430	6.628
07:00 - 08:00	3	360	9.815	3	360	7.870	3	360	17.685
08:00 - 09:00	3	360	13.796	3	360	12.500	3	360	26.296
09:00 - 10:00	4	333	10.752	4	333	10.526	4	333	21.278
10:00 - 11:00	5	361	8.476	5	361	9.030	5	361	17.506
11:00 - 12:00	5	361	9.418	5	361	8.532	5	361	17.950
12:00 - 13:00	5	361	15.956	5	361	15.402	5	361	31.358
13:00 - 14:00	5	361	15.235	5	361	15.568	5	361	30.803
14:00 - 15:00	5	361	10.803	5	361	12.133	5	361	22.936
15:00 - 16:00	5	361	10.803	5	361	10.471	5	361	21.274
16:00 - 17:00	5	361	10.748	5	361	11.025	5	361	21.773
17:00 - 18:00	5	361	10.914	5	361	10.693	5	361	21.607
18:00 - 19:00	5	361	11.247	5	361	11.745	5	361	22.992
19:00 - 20:00	5	361	9.584	5	361	9.917	5	361	19.501
20:00 - 21:00	5	361	7.867	5	361	8.366	5	361	16.233
21:00 - 22:00	5	361	5.485	5	361	5.817	5	361	11.302
22:00 - 23:00	3	368	5.249	3	368	5.882	3	368	11.131
23:00 - 24:00	1	475	1.474	1	475	2.105	1	475	3.579
Total Rates:			171.343			170.489			341.832

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: 220 - 475 (units: sqm)
 Survey date range: 01/01/05 - 21/10/14
 Number of weekdays (Monday-Friday): 5
 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.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
 Category : C - PUB/RESTAURANT
 VEHICLES

Selected regions and areas:

05	EAST MIDLANDS	
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	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: Gross floor area
 Actual Range: 400 to 1400 (units: sqm)
 Range Selected by User: 270 to 2384 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 04/10/13

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:

Tuesday	1 days
Friday	2 days

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

Selected survey types:

Manual count	3 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:

Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	1

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	2
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:

A4 3 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:

5,001 to 10,000 1 days

10,001 to 15,000 1 days

15,001 to 20,000 1 days

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

Population within 5 miles:

75,001 to 100,000 1 days

250,001 to 500,000 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 1 days

1.1 to 1.5 1 days

2.1 to 2.5 1 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:

No 3 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	NT-06-C-03	HARVESTER		NOTTINGHAMSHIRE
	CLIFTON LANE			
	WILFORD			
	NOTTINGHAM			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Gross floor area:		450 sqm	
	Survey date:	TUESDAY	18/06/13	Survey Type: MANUAL
2	SH-06-C-02	HUNGRY HORSE		SHROPSHIRE
	WELSHPOOL ROAD			
	SHELTON			
	SHREWSBURY			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:		1400 sqm	
	Survey date:	FRIDAY	26/06/09	Survey Type: MANUAL
3	TW-06-C-01	PUB/RESTAURANT		TYNE & WEAR
	WHICKHAM HIGHWAY			
	GATESHEAD			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		400 sqm	
	Survey date:	FRIDAY	04/10/13	Survey Type: MANUAL

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 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	3	750	0.444	3	750	0.400	3	750	0.844
11:00 - 12:00	3	750	0.889	3	750	0.533	3	750	1.422
12:00 - 13:00	3	750	2.044	3	750	0.667	3	750	2.711
13:00 - 14:00	3	750	1.689	3	750	1.378	3	750	3.067
14:00 - 15:00	3	750	1.022	3	750	2.222	3	750	3.244
15:00 - 16:00	3	750	1.111	3	750	0.933	3	750	2.044
16:00 - 17:00	3	750	1.911	3	750	1.022	3	750	2.933
17:00 - 18:00	3	750	2.489	3	750	2.400	3	750	4.889
18:00 - 19:00	3	750	3.022	3	750	2.356	3	750	5.378
19:00 - 20:00	3	750	2.844	3	750	3.022	3	750	5.866
20:00 - 21:00	3	750	2.356	3	750	2.400	3	750	4.756
21:00 - 22:00	3	750	1.911	3	750	2.489	3	750	4.400
22:00 - 23:00	3	750	0.978	3	750	2.044	3	750	3.022
23:00 - 24:00	3	750	0.444	3	750	1.556	3	750	2.000
Total Rates:			23.154			23.422			46.576

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: 400 - 1400 (units: sqm)
 Survey date range: 01/01/08 - 04/10/13
 Number of weekdays (Monday-Friday): 3
 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.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
 Category : A - HOTELS
 VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	DV DEVON	2 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	NT NOTTINGHAMSHIRE	1 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
10	WALES	
	CF CARDIFF	1 days
	WR WREXHAM	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 bedrooms
 Actual Range: 37 to 119 (units:)
 Range Selected by User: 30 to 120 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 24/06/13

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
Wednesday	2 days
Thursday	3 days
Friday	1 days

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

Selected survey types:

Manual count	8 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:

Edge of Town Centre	4
Edge of Town	3
Free Standing (PPS6 Out of Town)	1

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:

Industrial Zone	1
Development Zone	1
Residential Zone	2
Built-Up Zone	1
Out of Town	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:

C1	8 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	1 days
5,001 to 10,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	1 days
101,000 or More	1 days

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

Population within 5 miles:

75,001 to 100,000	2 days
125,001 to 250,000	1 days
250,001 to 500,000	4 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	3 days
1.1 to 1.5	5 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:

No	8 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-06-A-03 LONGUEIL CLOSE	HOLIDAY INN EXPRESS		CARDIFF
	CARDIFF Edge of Town Centre Residential Zone Total Number of bedrooms:		87	
		Survey date: MONDAY	16/07/12	Survey Type: MANUAL
2	DH-06-A-01 FREEMANS PLACE MILLENNIUM PLACE DURHAM	PREMIER INN		DURHAM
	Edge of Town Centre Development Zone Total Number of bedrooms:		103	
		Survey date: THURSDAY	04/12/08	Survey Type: MANUAL
3	DV-06-A-02 SUTTON ROAD SUTTON HARBOUR PLYMOUTH	PREMIER INN		DEVON
	Edge of Town Centre No Sub Category Total Number of bedrooms:		107	
		Survey date: WEDNESDAY	21/10/09	Survey Type: MANUAL
4	DV-06-A-03 WILLIAM PRANCE ROAD	FUTURE INN		DEVON
	PLYMOUTH Edge of Town Industrial Zone Total Number of bedrooms:		110	
		Survey date: WEDNESDAY	18/07/12	Survey Type: MANUAL
5	LC-06-A-04 LEYLAND WAY	BEST WESTERN		LANCASHIRE
	LEYLAND Edge of Town Residential Zone Total Number of bedrooms:		93	
		Survey date: FRIDAY	21/10/11	Survey Type: MANUAL
6	NF-06-A-02 IPSWICH ROAD HARFORD PARK NORWICH	HOLIDAY INN		NORFOLK
	Edge of Town No Sub Category Total Number of bedrooms:		119	
		Survey date: THURSDAY	30/09/10	Survey Type: MANUAL
7	NT-06-A-02 LONDON ROAD	PREMIER INN		NOTTINGHAMSHIRE
	NOTTINGHAM Edge of Town Centre Built-Up Zone Total Number of bedrooms:		87	
		Survey date: MONDAY	24/06/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	WR-06-A-02	HOTEL	WREXHAM
	WREXHAM ROAD		
	HOLT		
	NEAR WREXHAM		
	Free Standing (PPS6 Out of Town)		
	Out of Town		
	Total Number of bedrooms:	37	
	Survey date: THURSDAY	06/10/11	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 06 - HOTEL, FOOD & DRINK/A - HOTELS
VEHICLES

Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	93	0.067	8	93	0.152	8	93	0.219
08:00 - 09:00	8	93	0.192	8	93	0.230	8	93	0.422
09:00 - 10:00	8	93	0.180	8	93	0.163	8	93	0.343
10:00 - 11:00	8	93	0.118	8	93	0.151	8	93	0.269
11:00 - 12:00	8	93	0.124	8	93	0.153	8	93	0.277
12:00 - 13:00	8	93	0.153	8	93	0.121	8	93	0.274
13:00 - 14:00	8	93	0.148	8	93	0.152	8	93	0.300
14:00 - 15:00	8	93	0.104	8	93	0.113	8	93	0.217
15:00 - 16:00	8	93	0.135	8	93	0.182	8	93	0.317
16:00 - 17:00	8	93	0.153	8	93	0.147	8	93	0.300
17:00 - 18:00	8	93	0.205	8	93	0.125	8	93	0.330
18:00 - 19:00	8	93	0.166	8	93	0.120	8	93	0.286
19:00 - 20:00	8	93	0.203	8	93	0.135	8	93	0.338
20:00 - 21:00	8	93	0.090	8	93	0.074	8	93	0.164
21:00 - 22:00	8	93	0.069	8	93	0.075	8	93	0.144
22:00 - 23:00	1	103	0.107	1	103	0.136	1	103	0.243
23:00 - 24:00									
Total Rates:			2.214			2.229			4.443

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: 37 - 119 (units:)
 Survey date date range: 01/01/08 - 24/06/13
 Number of weekdays (Monday-Friday): 8
 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 McDonald's TA Extract



4.0 TRAFFIC IMPACT ASSESSMENT

4.1 McDonald's Surveyed Traffic and Trip Types

Methodology

4.1.1 ADL Traffic Engineering commissioned Axiom Traffic Ltd to undertake traffic counts and customer interview surveys at:

- McDonald's Fenton: Victoria Road ST4 2HX:
(close to an Aldi foodstore and Gala Bingo)

4.1.2 Enumerators visited the restaurant on Friday 20 April 2012 between 16:00 – 19:00 hours.

4.1.3 A summary of the traffic count data and customer interview survey is included in Appendix 6.0.

Surveyed Traffic

4.1.4 The surveyed traffic on a Friday 17:00 – 18:00 hours, (coinciding with the network peak hour) was:

- 91 vehicles in
- 86 vehicles out

Trips By Type

4.1.5 Interview surveys were undertaken during the survey period to establish the type of trips visiting a McDonald's Restaurant with a drive thru facility in a retail park location.

4.1.6 Four primary trip types are referred to throughout this report as follows:

- Additional Trips
 - These are specific car journeys to visit the McDonald's whereby customers return to their original location immediately after completing their visit:

e.g. Home → McDonald's → Home

- Diverted Trips
 - These are trips where a driver is already on the road network and alter their route to visit McDonald's:
 - e.g. Home → McDonald's → Other → Home
 - e.g. Work → McDonald's → Home

- Pass By Trips
 - These are also trips which are on the network in any event

- Shared Trips
 - These are existing trips on the network which are shared with adjacent uses in this case:
 - Shared with the Aldi foodstore on the retail park
 - Shared with Asda on Handsworth Road

4.1.7 Additional trips may not necessarily be new trips as those customers may previously have undertaken trips to other hot food takeaways. Collectively pass by, diverted and shared trips can be referred to as 'existing trips' as they represent all existing vehicles on the network.

4.1.8 The data from the customer interview surveys has been analysed and a summary is included in Table 4A below.

Table 4A Interview Surveys: Summary of Trips By Type: Friday

Trip Type	Definition	No	%	%
Additional Trips	Same origin/destination McDonald's sole purpose of trip	7	11%	11%
Existing Trips	Different origin/destination	17	28%	89%
	Same origin/destination McDonald's not sole purpose of trip	23	38%	
	Shared with food retail, visit Asda before or after McDonald's	9	15%	
Shared Trips (with site)	Visit Aldi before or after McDonald's	5	8%	
Total		61	100%	100%

4.1.9 Table 4A demonstrates that on a Friday 89% of trips to the proposed McDonald's could be expected to be existing on the road network and 11% of trips would be additional trips to the McDonald's.

4.1.10 As a check, customers were also asked what the main purpose of their journey was. Table 4B demonstrates that 'visit McDonald's' only accounted for 11% of responses.

Table 4B Main Purpose of Customer Journey: Friday

Main Purpose	No	%
Going Home	20	33%
Visit McDonald's	7	11%
Go Shopping	16	26%
Go to Work	1	2%
Other	17	28%
Total	61	100%

4.2 Proposed McDonald's Traffic Net Trips and Trips By Type

Methodology

4.2.1 McDonald's Restaurants Ltd operate around 1200 fast service restaurants throughout the UK. Using experience obtained from operating these restaurants, models have been constructed to predict the potential sales (viability) of proposed restaurants. The model includes the utilisation of data including:

- Number of surrounding McDonald's restaurants;
- Number of surrounding competitor fast service restaurants;
- Population within 5km;
- Traffic flow information.

4.2.2 Therefore, the predicted level of trade for the proposed Handsworth Retail Park restaurant has been calculated by McDonald's Restaurants Ltd on a researched and methodical basis, however trade information is commercially sensitive and cannot be released into the public domain.

4.2.3 The methodology of calculating McDonald's trips on predicted turnover has recently been examined at Public Inquiry. A copy of the Inspector's October 2011 Decision Letter for McDonald's Broomwood Road, Orpington (ref. APP/G5180/A/11/2150362) is included in Appendix 7.0. The Inspector concluded:

- “8. *The appellant’s Transport Assessment (TA) provides the predicted levels of vehicle trips to the proposed restaurant and drive through. This informed the Environmental Noise Assessment. The level of vehicle trips were calculated based on traffic surveys undertaken at the McDonald’s restaurant in Wickham Road using information provided by McDonald’s including the anticipated level of trading based on analysis of turnover at existing restaurants, the relative location of existing stores, population and the amount of passing traffic on the highway.*
10. *McDonald’s representative says that the company has extensive experience in predicting the expected trading level of potential restaurants. The restaurant would be managed by a franchisee whereby the rent payable to McDonald’s would be based on a percentage of sales and fixed for a 20 year term. Whilst the turnover figures of other restaurants were not supplied due to commercial sensitivity, on that basis and taking into account the sensitivity analysis, I consider it unlikely that the level of trading or customer numbers would differ substantially to that predicted.”*

4.2.4 McDonald’s have advised that the Handsworth Retail Park restaurant is expected to trade at 68% of the level of trade at McDonald’s Fenton. However, McDonald’s Fenton operates 24 hours and the proposed restaurant may be subject to shorter opening hours (06:00 – 23:00 hours). In this instance, ADL have made no adjustment to the surveyed level of traffic generation.

Proposed Traffic Generation

4.2.5 The proposed traffic generated by the McDonald’s during the Friday PM network peak is therefore expected to be:

- 91 vehicles in
- 86 vehicles out

Proposed Net Traffic Generation

4.2.6 The proposed net traffic generation discounting the permitted use of the site (calculated in Table 2A) is expected to be:

- +89 vehicles in ($91 - 2 = 89$)
- +71 vehicles out ($86 - 15 = 71$)

Proposed Trips By Type

4.2.7 In the context of the proposed development site, the primary trip types identified in paragraph 4.1.6 would be:

- Additional Trips:
Specific car journeys to visit the McDonald's.
- Pass By/Diverted:
These would be trips already on Handsworth Road or shared with Asda passing the site in any event.
- Shared:
These would be trips shared with the Aldi foodstore on the Retail Park.

Proposed Net Trips By Type

4.2.8 The proportion of net trips by type on a Friday have been calculated as shown in Table 4C below.

Table 4C Proposed Net Trips By Type: Friday PM Peak

Trip Type		%	No	
			In	Out
Additional	-	11%	10	8
Existing	Pass By/Diverted	65%	58	46
	Shared with Asda	15%	14	11
Shared	Shared with Aldi/ Retail Park	8%	7	6
Total		100%	89	71

4.3 Proposed Net Trip Distribution

4.3.1 For consistency the proposed net trip distribution has been calculated based on the same proportional distribution as the permitted Retail Park, taken from Mayer Brown's 2010 TA as follows:

- Richmond Park Road 40%
- Handsworth Road South 40%
- Handsworth Road North 20%

4.3.2 The proposed net distribution is summarised in Table 4D below.

Table 4D Proposed Trip Distribution

Road	%	Proposed Additional Trips		Proposed Trips Shared with Aldi		Proposed Existing Trips (Pass-by/ Diverted & Trips Shared with Asda)	
		In	Out	In	Out	In	Out
Richmond Park Rd	40%	4	3	3	2	29	23
Handsworth Rd South	40%	4	3	3	2	29	23
Handsworth Rd North	20%	2	2	1	2	14	11
Total	100%	10	8	7	6	72	57

4.3.3 The proposed McDonald's net traffic flows are shown on the diagrams in Appendix 8.0.

4.4 Traffic Impact Assessment

Additional Trips to Network

4.4.1 The proposed McDonald's would generate the following additional net trips to the network during the Friday PM peak:

- 10 trips in
- 8 trips out

4.4.2 The proposal would therefore have no material overall impact on the local road network.

Richmond Road/Handsworth Road Junction

4.4.3 Section 4.3 has demonstrated that the majority of trips would be pass-by trips on Handsworth Road or shared with the Asda foodstore. Although these trips would be existing on the road network it is expected that the proposal would generate some 'new' movements at the Richmond Park/Handsworth Road Junction. The traffic impact at the junction is shown in Table 4E below.

Table 4E Traffic Impact Handsworth Road/Richmond Park Road

		Permitted 2015 Flows	Proposed 2015 Flows	Impact
Richmond Park Rd	Left	212	219	+7
Handsworth Rd South	Left	46	46	0
	Ahead	813	822	+9
Handsworth Rd North	Ahead	1329	1331	+2
	Right	389	405	+16
Total		2789	2823	+34

4.4.4 Table 4E demonstrates that the proposal would result in an additional 34 movements at the junction which is equivalent to only a 1.2% increase in trips. The critical movements identified from the LINSIG analysis in the MB TA are on Handsworth Road North. Table 4E demonstrates that the proposal would generate 2 additional movements ahead and 16 movements turning right. It is considered that 1 additional movement turning right every 4 minutes would have no material impact on the permitted situation at this junction.

Appendix K Capacity Outputs



Junctions 8
ARCADY 8 - Roundabout Module
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Filename: (new file)
 Path:
 Report generation date: 04/09/2014 09:29:37

- « (Default Analysis Set) - AM 2014 Count, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - AM 2014 Count				
A6195 (South)	1.05	2.99	0.51	A
Site Access	0.00	0.00	0.00	A
A6195 (North)	0.96	2.91	0.49	A
Unnamed East	0.00	0.00	0.00	A

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

- "D1 - AM 2014 Count, AM" model duration: 07:30 - 09:00
- "D2 - PM 2014 Count, PM" model duration: 16:15 - 17:45
- "D3 - AM 2014 Design, AM" model duration: 07:30 - 09:00
- "D4 - PM 2014 Design, PM" model duration: 16:15 - 17:45
- "D5 - AM 2019 Count, AM" model duration: 07:30 - 09:00
- "D6 - PM 2019 Count, PM" model duration: 16:15 - 17:45
- "D7 - AM 2019 Design, AM" model duration: 07:30 - 09:00
- "D8 - PM 2019 Design, PM" model duration: 16:15 - 17:45

Run using Junctions 8.0.1.305 at 04/09/2014 09:29:36

File summary

File Description

Title	Rockingham Roundabout
Location	Barnsley
Site Number	
Date	15/07/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	

Enumerator	OPTIMA\tom.pritchard
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - AM 2014 Count, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	DemandSets	D1 - AM 2014 Count, AM	Demand Set 1: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D2 - PM 2014 Count, PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D3 - AM 2014 Design, AM	Demand Set 3: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D4 - PM 2014 Design, PM	Demand Set 4: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D5 - AM 2019 Count, AM	Demand Set 5: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D6 - PM 2019 Count, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D7 - AM 2019 Design, AM	Demand Set 7: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D8 - PM 2019 Design, PM	Demand Set 8: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
AM 2014 Count, AM	AM 2014 Count	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
Rockingham Rounabout	Roundabout	1,2,3,4			2.95	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
A6195 (South)	A6195 (South)	
Site Access	Site Access	
A6195 (North)	A6195 (North)	
Unnamed East	Unnamed East	

Roundabout Geometry

Name	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
A6195 (South)	7.43	8.05	3.14	24.70	60.00	20.00	
Site Access	4.75	7.60	43.40	23.00	60.00	16.00	
A6195 (North)	7.50	8.10	3.00	23.00	60.00	26.00	
Unnamed East	3.97	7.40	5.85	29.20	60.00	16.00	

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

Pedestrian Crossings

Name	Crossing Type
A6195 (South)	None
Site Access	None
A6195 (North)	None
Unnamed East	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A6195 (South)		(calculated)	(calculated)	0.702	2470.470
Site Access		(calculated)	(calculated)	0.670	2271.163
A6195 (North)		(calculated)	(calculated)	0.689	2431.636
Unnamed East		(calculated)	(calculated)	0.568	1664.338

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A6195 (South)	ONE HOUR	✓	1150.00	100.000
Site Access	ONE HOUR	✓	0.00	100.000
A6195 (North)	ONE HOUR	✓	1085.00	100.000
Unnamed East	ONE HOUR	✓	1.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Rockingham Roundabout (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	1150.000	0.000
	2	0.000	0.000	0.000	0.000
	3	1084.000	0.000	0.000	1.000
	4	1.000	0.000	0.000	0.000

Turning Proportions (PCU) - Rockingham Roundabout (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.00	1.00	0.00
	2	0.25	0.25	0.25	0.25
	3	1.00	0.00	0.00	0.00
	4	1.00	0.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Rockingham Roundabout (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Rockingham Roundabout (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A6195 (South)	0.51	2.99	1.05	A
Site Access	0.00	0.00	0.00	A
A6195 (North)	0.49	2.91	0.96	A
Unnamed East	0.00	0.00	0.00	A

Main Results for each time segment

Main results: (07:30-07:45)

Name	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
A6195 (South)	865.78	863.63	0.00	0.00	2470.47	0.350	0.54	2.237	A
Site Access	0.00	0.00	863.63	0.00	1692.15	0.000	0.00	0.000	A
A6195 (North)	816.84	814.83	0.00	0.00	2431.64	0.336	0.50	2.223	A
Unnamed East	0.00	0.00	814.08	0.00	1202.21	0.000	0.00	0.000	A

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
A6195 (South)	1033.83	1033.11	0.00	0.00	2470.47	0.418	0.72	2.503	A
Site Access	0.00	0.00	1033.11	0.00	1578.52	0.000	0.00	0.000	A
A6195 (North)	975.39	974.74	0.00	0.00	2431.64	0.401	0.67	2.469	A
Unnamed East	0.00	0.00	973.84	0.00	1111.52	0.000	0.00	0.000	A

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
A6195 (South)	1266.17	1264.86	0.00	0.00	2470.47	0.513	1.04	2.983	A
Site Access	0.00	0.00	1264.86	0.00	1423.15	0.000	0.00	0.000	A
A6195 (North)	1194.61	1193.44	0.00	0.00	2431.64	0.491	0.96	2.905	A
Unnamed East	0.00	0.00	1192.34	0.00	987.48	0.000	0.00	0.000	A

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
A6195 (South)	1266.17	1266.16	0.00	0.00	2470.47	0.513	1.05	2.988	A
Site Access	0.00	0.00	1266.16	0.00	1422.28	0.000	0.00	0.000	A
A6195 (North)	1194.61	1194.60	0.00	0.00	2431.64	0.491	0.96	2.909	A
Unnamed East	0.00	0.00	1193.49	0.00	986.83	0.000	0.00	0.000	A

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
A6195 (South)	1033.83	1035.13	0.00	0.00	2470.47	0.418	0.72	2.509	A
Site Access	0.00	0.00	1035.13	0.00	1577.17	0.000	0.00	0.000	A
A6195 (North)	975.39	976.55	0.00	0.00	2431.64	0.401	0.67	2.477	A
Unnamed East	0.00	0.00	975.65	0.00	1110.49	0.000	0.00	0.000	A

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
A6195 (South)	865.78	866.51	0.00	0.00	2470.47	0.350	0.54	2.245	A
Site Access	0.00	0.00	866.51	0.00	1690.22	0.000	0.00	0.000	A
A6195 (North)	816.84	817.51	0.00	0.00	2431.64	0.336	0.51	2.232	A
Unnamed East	0.00	0.00	816.75	0.00	1200.69	0.000	0.00	0.000	A

Junctions 8
ARCADY 8 - Roundabout Module
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Filename: (new file)

Path:

Report generation date: 04/09/2014 09:31:33

- « (Default Analysis Set) - PM 2014 Count, PM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - PM 2014 Count				
A6195 (South)	1.19	3.20	0.54	A
Site Access	0.00	0.00	0.00	A
A6195 (North)	0.81	2.68	0.45	A
Unnamed East	0.00	0.00	0.00	A

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

- "D1 - AM 2014 Count, AM" model duration: 07:30 - 09:00
- "D2 - PM 2014 Count, PM " model duration: 16:15 - 17:45
- "D3 - AM 2014 Design, AM" model duration: 07:30 - 09:00
- "D4 - PM 2014 Design, PM" model duration: 16:15 - 17:45
- "D5 - AM 2019 Count, AM" model duration: 07:30 - 09:00
- "D6 - PM 2019 Count, PM" model duration: 16:15 - 17:45
- "D7 - AM 2019 Design, AM" model duration: 07:30 - 09:00
- "D8 - PM 2019 Design, PM" model duration: 16:15 - 17:45

Run using Junctions 8.0.1.305 at 04/09/2014 09:31:32

File summary

File Description

Title	Rockingham Roundabout
Location	Barnsley
Site Number	
Date	15/07/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	

Enumerator	OPTIMA\tom.pritchard
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - PM 2014 Count, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Site Access - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	DemandSets	D1 - AM 2014 Count, AM	Demand Set 1: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D2 - PM 2014 Count, PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D3 - AM 2014 Design, AM	Demand Set 3: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D4 - PM 2014 Design, PM	Demand Set 4: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D5 - AM 2019 Count, AM	Demand Set 5: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D6 - PM 2019 Count, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D7 - AM 2019 Design, AM	Demand Set 7: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D8 - PM 2019 Design, PM	Demand Set 8: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
PM 2014 Count, PM	PM 2014 Count	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
Rockingham Rounabout	Roundabout	1,2,3,4			2.97	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
A6195 (South)	A6195 (South)	
Site Access	Site Access	
A6195 (North)	A6195 (North)	
Unnamed East	Unnamed East	

Roundabout Geometry

Name	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
A6195 (South)	7.43	8.05	3.14	24.70	60.00	20.00	
Site Access	4.75	7.60	43.40	23.00	60.00	16.00	
A6195 (North)	7.50	8.10	3.00	23.00	60.00	26.00	
Unnamed East	3.97	7.40	5.85	29.20	60.00	16.00	

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

Pedestrian Crossings

Name	Crossing Type
A6195 (South)	None
Site Access	None
A6195 (North)	None
Unnamed East	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A6195 (South)		(calculated)	(calculated)	0.702	2470.470
Site Access		(calculated)	(calculated)	0.670	2271.163
A6195 (North)		(calculated)	(calculated)	0.689	2431.636
Unnamed East		(calculated)	(calculated)	0.568	1664.338

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓