





Appendix F TRICs outputs

Calculation Reference: AUDIT-231601-200714-0709

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL Category : C - DISCOUNT FOOD STORES VEHICLES

Selected regions and areas:

08 NORTH WEST

CHCHESHIRE2 daysGMGREATER MANCHESTER1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	1800 to 2635 (units: sqm)
Range Selected by User:	700 to 2703 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision: Selection by:

Date Range: 01/01/12 to 23/06/19

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.

3 days

Include all surveys

<u>Selected survey days:</u> Sunday

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 undertaking using machines.

<u>Selected Locations:</u> Edge of Town Centre

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.

<u>Selected Location Sub Categories:</u> Retail Zone

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.

Secondary Filtering selection:

<u>Use Class:</u> A1

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[®]*.*

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Seven House, High Street Longbridge, Birm	ingham	Licence No: 231601
Secondary Filtering selection (Cont.):		
Population within 1 mile:		
10,001 to 15,000	2 days	
25,001 to 50,000	1 days	
This data displays the number of selected sur	rveys within stated 1-mile radii of population.	
Population within 5 miles:		
50,001 to 75,000	2 days	
500,001 or More	1 days	
This data displays the number of selected sur	rveys within stated 5-mile radii of population.	
Car ownership within 5 miles:		
0.6 to 1.0	1 days	
1.1 to 1.5	2 days	
This data displays the number of selected sur within a radius of 5-miles of selected survey s	rveys within stated ranges of average cars owned per r sites.	residential dwelling,
Petrol filling station:		
Included in the survey count	0 days	
Excluded from count or no filling station	3 days	
<i>This data displays the number of surveys with number of surveys that do not.</i>	hin the selected set that include petrol filling station ac	tivity, and the
<u>Travel Plan:</u>		
<u>Travel Plan:</u> Yes	1 days	

<u>PTAL Rating:</u> No PTAL Present

3 days

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

LIST OF SITES relevant to selection parameters

1	CH-01-C-01 ALDI LEICESTER STREET NORTHWICH		CHESHIRE
2	Edge of Town Centre Retail Zone Total Gross floor area: <i>Survey date: SUNDAY</i> CH-01-C-02 LIDL CHESTER WAY NORTHWICH	2010 sqm <i>09/06/19</i>	Survey Type: MANUAL CHESHIRE
3	Edge of Town Centre Retail Zone Total Gross floor area: <i>Survey date: SUNDAY</i> GM-01-C-10 ALDI GREAT ANCOATS STREET MANCHESTER URBAN EXCHANGE Edge of Town Centre Retail Zone	1800 sqm <i>09/06/19</i>	Survey Type: MANUAL GREATER MANCHESTER
	Total Gross floor area: Survey date: SUNDAY	2635 sqm <i>25/09/16</i>	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 01 - RETAIL/C - DISCOUNT FOOD STORES

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

		ARRIVALS		[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	4.278	2	1905	2.808	2	1905	7.086
10:00 - 11:00	2	1905	9.843	2	1905	10.341	2	1905	20.184
11:00 - 12:00	3	2148	9.061	3	2148	8.332	3	2148	17.393
12:00 - 13:00	3	2148	9.046	3	2148	9.465	3	2148	18.511
13:00 - 14:00	3	2148	9.977	3	2148	8.673	3	2148	18.650
14:00 - 15:00	3	2148	7.277	3	2148	8.053	3	2148	15.330
15:00 - 16:00	3	2148	5.213	3	2148	6.191	3	2148	11.404
16:00 - 17:00	2	2323	2.110	2	2323	3.337	2	2323	5.447
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			56.805			57.200			114.005

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.

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Parameter summary

Trip rate parameter range selected:	1800 - 2635 (units: sqm)
Survey date date range:	01/01/12 - 23/06/19
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	0
Number of Sundays:	3
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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

		ARRIVALS		DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
12:00 - 13:00	3	2148	0.031	3	2148	0.031	3	2148	0.062
13:00 - 14:00	3	2148	0.062	3	2148	0.062	3	2148	0.124
14:00 - 15:00	3	2148	0.031	3	2148	0.031	3	2148	0.062
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.124			0.124			0.248

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

		ARRIVALS		DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.026	2	1905	0.026	2	1905	0.052
11:00 - 12:00	3	2148	0.016	3	2148	0.016	3	2148	0.032
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
14:00 - 15:00	3	2148	0.016	3	2148	0.016	3	2148	0.032
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.058			0.058			0.116

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.

Licence No: 231601

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

		ARRIVALS			DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.131	2	1905	0.052	2	1905	0.183
10:00 - 11:00	2	1905	0.105	2	1905	0.184	2	1905	0.289
11:00 - 12:00	3	2148	0.078	3	2148	0.062	3	2148	0.140
12:00 - 13:00	3	2148	0.031	3	2148	0.016	3	2148	0.047
13:00 - 14:00	3	2148	0.031	3	2148	0.031	3	2148	0.062
14:00 - 15:00	3	2148	0.016	3	2148	0.031	3	2148	0.047
15:00 - 16:00	3	2148	0.016	3	2148	0.031	3	2148	0.047
16:00 - 17:00	2	2323	0.065	2	2323	0.129	2	2323	0.194
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.473			0.536			1.009

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

		ARRIVALS		DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	4.226	2	1905	2.782	2	1905	7.008
10:00 - 11:00	2	1905	9.633	2	1905	10.105	2	1905	19.738
11:00 - 12:00	3	2148	8.891	3	2148	8.192	3	2148	17.083
12:00 - 13:00	3	2148	8.798	3	2148	9.263	3	2148	18.061
13:00 - 14:00	3	2148	9.744	3	2148	8.441	3	2148	18.185
14:00 - 15:00	3	2148	7.013	3	2148	7.804	3	2148	14.817
15:00 - 16:00	3	2148	5.089	3	2148	6.005	3	2148	11.094
16:00 - 17:00	2	2323	2.110	2	2323	3.272	2	2323	5.382
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			55.504			55.864			111.368

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

		ARRIVALS		DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.052	2	1905	0.026	2	1905	0.078
10:00 - 11:00	2	1905	0.157	2	1905	0.184	2	1905	0.341
11:00 - 12:00	3	2148	0.124	3	2148	0.109	3	2148	0.233
12:00 - 13:00	3	2148	0.109	3	2148	0.093	3	2148	0.202
13:00 - 14:00	3	2148	0.140	3	2148	0.109	3	2148	0.249
14:00 - 15:00	3	2148	0.155	3	2148	0.155	3	2148	0.310
15:00 - 16:00	3	2148	0.109	3	2148	0.124	3	2148	0.233
16:00 - 17:00	2	2323	0.000	2	2323	0.065	2	2323	0.065
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.846			0.865			1.711

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MOTOR CYCLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.026	2	1905	0.026	2	1905	0.052
11:00 - 12:00	3	2148	0.031	3	2148	0.016	3	2148	0.047
12:00 - 13:00	3	2148	0.109	3	2148	0.078	3	2148	0.187
13:00 - 14:00	3	2148	0.031	3	2148	0.062	3	2148	0.093
14:00 - 15:00	3	2148	0.062	3	2148	0.047	3	2148	0.109
15:00 - 16:00	3	2148	0.016	3	2148	0.062	3	2148	0.078
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.275			0.291			0.566

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.

Licence No: 231601

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

Light Vehicles (LV) Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
14:00 - 15:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES **Rigid Trucks - No Trailer (OGV1) Calculation factor: 100 sqm BOLD print indicates peak (busiest) period**

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
14:00 - 15:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES Trucks Towing Trailers (OGV2) Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
14:00 - 15:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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.

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TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
14:00 - 15:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES Non-Motorised Vehicles (NMV) Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000	
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000	
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000	
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000	
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000	
14:00 - 15:00	3	2148	0.000	3	2148	0.000	3	2148	0.000	
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000	
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000	
17:00 - 18:00										
18:00 - 19:00										
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.000			0.000			0.000	

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
14:00 - 15:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
14:00 - 15:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES Non-Vehicular People Movements (NVPM) Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1905	0.000	2	1905	0.000	2	1905	0.000
10:00 - 11:00	2	1905	0.000	2	1905	0.000	2	1905	0.000
11:00 - 12:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
12:00 - 13:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
13:00 - 14:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
14:00 - 15:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
15:00 - 16:00	3	2148	0.000	3	2148	0.000	3	2148	0.000
16:00 - 17:00	2	2323	0.000	2	2323	0.000	2	2323	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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.

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TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Categ VEH	Use ory ICLES	: 01 - RETAIL : C - DISCOUNT FOOD STORES	
Select	ted reg	ions and areas:	
02	SOUT	H EAST	
	KC	KENT	1 days
05	EAST	MIDLANDS	
	LN	LINCOLNSHIRE	1 days
	NR	NORTHAMPTONSHIRE	1 days
06	WEST	MIDLANDS	
	WO	WORCESTERSHIRE	1 days
07	YORK	SHIRE & NORTH LINCOLNSHIRE	
	NY	NORTH YORKSHIRE	1 days
09	NORT	Ή	
	NB	NORTHUMBERLAND	1 days

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

Secondary Filtering selection:

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

Include all surveys

Parameter:	Gross floor area
Actual Range:	1407 to 2624 (units: sqm)
Range Selected by User:	700 to 2635 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision: Selection by:

Date Range: 01/01/11 to 30/04/19

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	1 days
Tuesday	5 days

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

Selected survey types:	
Manual count	6 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 undertaking using machines.

Selected Locations: Edge of Town Centre

6

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
Built-Up Zone	2
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.

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nes Associates	The Innovation Centre	Longbridge Technology Park	Licence No: 2
Secondary Fi	tering selection:		
<u>Use Class:</u>			
A1		6 days	
This data displ has been used	ays the number of surveys for this purpose, which ca	s per Use Class classification within the selected set. Than be found within the Library module of TRICS®.	he Use Classes Order 2005
Population with	<u>nin 1 mile:</u>		
5,001 to 10,00	00	1 days	
10,001 to 15,0	00	3 days	
20,001 to 25,0	00	1 days	
25,001 to 50,0	00	1 days	
This data displ	ays the number of selecte	d surveys within stated 1-mile radii of population.	
Population with	nin 5 miles:		
5,001 to 25,0	00	1 days	
25,001 to 50,0	000	1 days	
50,001 to 75,0	000	1 days	
75,001 to 100	,000	1 days	
125,001 to 250	0,000	2 days	
<u>Car ownership</u> 1.1 to 1.5	within 5 miles:	6 days	
This data displa within a radius	ays the number of selecte of 5-miles of selected sur	d surveys within stated ranges of average cars owned vey sites.	per residential dwelling,
Petrol filling sta	ation:		
Included in the	survey count	0 days	
Excluded from	count or no filling station	6 days	
This data displo number of surv	ays the number of survey. veys that do not.	s within the selected set that include petrol filling station	on activity, and the
Travel Plan:			
Yes		2 days	
No		4 days	
This data displ and the numbe	ays the number of survey. er of surveys that were un	s within the selected set that were undertaken at sites dertaken at sites without Travel Plans.	with Travel Plans in place,
<u>PTAL_Rating:</u>	at	6 days	
<u>PTAL Rating:</u> No PTAL Prese	it.		
<u>PTAL Rating:</u> No PTAL Prese This data displa	ays the number of selecte	d surveys with PTAL Ratings.	

LIST OF SITES relevant to selection parameters

1	KC-01-C-02 A WELL ROAD MAIDSTONE	ALDI		KENT
2	Edge of Town Centre Built-Up Zone Total Gross floor area: Survey date: To LN-01-C-01 L RICHMOND DRIVE SKEGNESS	UESDAY IDL	1407 sqm <i>27/11/12</i>	Survey Type: MANUAL LINCOLNSHIRE
3	Edge of Town Centre Built-Up Zone Total Gross floor area: Survey date: To NB-01-C-01 L SCHALKSMUHLE ROAD BEDLINGTON	UESDAY I DL)	2398 sqm <i>19/07/16</i>	Survey Type: MANUAL NORTHUMBERLAND
4	Edge of Town Centre No Sub Category Total Gross floor area: <i>Survey date: M</i> NR-01-C-02 NEWTON ROAD RUSHDEN	ONDAY IDL	2450 sqm <i>12/06/17</i>	Survey Type: MANUAL NORTHAMPTONSHIRE
5	Edge of Town Centre Residential Zone Total Gross floor area: Survey date: TO NY-01-C-02 STATION ROAD THIRSK	UESDAY I DL	2624 sqm <i>19/07/16</i>	Survey Type: MANUAL NORTH YORKSHIRE
6	Edge of Town Centre No Sub Category Total Gross floor area: Survey date: TO WO-01-C-02 WORCESTER ROAD MALVERN	UESDAY I DL	1527 sqm <i>11/10/11</i>	Survey Type: MANUAL WORCESTERSHIRE
	Edge of Town Centre Residential Zone Total Gross floor area: Survey date: To	UESDAY	1471 sqm <i>26/06/18</i>	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.

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Longbridge Technology Park

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

The Innovation Centre

Phil Jones Associates

		ARRIVALS			DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2511	0.159	2	2511	0.040	2	2511	0.199	
07:00 - 08:00	5	2070	0.570	5	2070	0.222	5	2070	0.792	
08:00 - 09:00	6	1980	2.290	6	1980	1.532	6	1980	3.822	
09:00 - 10:00	6	1980	3.275	6	1980	2.896	6	1980	6.171	
10:00 - 11:00	6	1980	3.696	6	1980	3.073	6	1980	6.769	
11:00 - 12:00	6	1980	3.873	6	1980	3.848	6	1980	7.721	
12:00 - 13:00	6	1980	3.528	6	1980	3.949	6	1980	7.477	
13:00 - 14:00	6	1980	3.435	6	1980	3.999	6	1980	7.434	
14:00 - 15:00	6	1980	4.446	6	1980	3.974	6	1980	8.420	
15:00 - 16:00	6	1980	4.277	6	1980	4.067	6	1980	8.344	
16:00 - 17:00	6	1980	4.395	6	1980	4.782	6	1980	9.177	
17:00 - 18:00	6	1980	3.974	6	1980	4.201	6	1980	8.175	
18:00 - 19:00	6	1980	3.098	6	1980	3.132	6	1980	6.230	
19:00 - 20:00	6	1980	2.113	6	1980	2.383	6	1980	4.496	
20:00 - 21:00	6	1980	1.347	6	1980	1.878	6	1980	3.225	
21:00 - 22:00	5	2070	0.831	5	2070	1.217	5	2070	2.048	
22:00 - 23:00	3	2491	0.027	3	2491	0.321	3	2491	0.348	
23:00 - 24:00										
Total Rates:			45.334			45.514			90.848	

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.

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Parameter summary

Trip rate parameter range selected:1407 - 2624 (units: sqm)Survey date date range:01/01/11 - 30/04/19Number of weekdays (Monday-Friday):6Number of Saturdays:0Number of Sundays:0Surveys automatically removed from selection:0Surveys 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.

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RATE TRIP RATE GRAPH - DEPARTURES 01 - RETAIL C - DISCOUNT FOOD STORES VEHICLES 96

Licence No: 231601





TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

The Innovation Centre

Phil Jones Associates

		ARRIVALS		[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2511	0.000	2	2511	0.000	2	2511	0.000	
07:00 - 08:00	5	2070	0.000	5	2070	0.000	5	2070	0.000	
08:00 - 09:00	6	1980	0.008	6	1980	0.008	6	1980	0.016	
09:00 - 10:00	6	1980	0.034	6	1980	0.025	6	1980	0.059	
10:00 - 11:00	6	1980	0.017	6	1980	0.008	6	1980	0.025	
11:00 - 12:00	6	1980	0.017	6	1980	0.025	6	1980	0.042	
12:00 - 13:00	6	1980	0.025	6	1980	0.025	6	1980	0.050	
13:00 - 14:00	6	1980	0.051	6	1980	0.051	6	1980	0.102	
14:00 - 15:00	6	1980	0.008	6	1980	0.017	6	1980	0.025	
15:00 - 16:00	6	1980	0.008	6	1980	0.008	6	1980	0.016	
16:00 - 17:00	6	1980	0.017	6	1980	0.008	6	1980	0.025	
17:00 - 18:00	6	1980	0.034	6	1980	0.034	6	1980	0.068	
18:00 - 19:00	6	1980	0.017	6	1980	0.025	6	1980	0.042	
19:00 - 20:00	6	1980	0.017	6	1980	0.017	6	1980	0.034	
20:00 - 21:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
21:00 - 22:00	5	2070	0.019	5	2070	0.010	5	2070	0.029	
22:00 - 23:00	3	2491	0.000	3	2491	0.000	3	2491	0.000	
23:00 - 24:00										
Total Rates:			0.272			0.261			0.533	

Longbridge Technology Park

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.

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TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

The Innovation Centre

Phil Jones Associates

		ARRIVALS			DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2511	0.020	2	2511	0.000	2	2511	0.020	
07:00 - 08:00	5	2070	0.019	5	2070	0.010	5	2070	0.029	
08:00 - 09:00	6	1980	0.017	6	1980	0.025	6	1980	0.042	
09:00 - 10:00	6	1980	0.067	6	1980	0.034	6	1980	0.101	
10:00 - 11:00	6	1980	0.017	6	1980	0.042	6	1980	0.059	
11:00 - 12:00	6	1980	0.017	6	1980	0.025	6	1980	0.042	
12:00 - 13:00	6	1980	0.000	6	1980	0.008	6	1980	0.008	
13:00 - 14:00	6	1980	0.008	6	1980	0.000	6	1980	0.008	
14:00 - 15:00	6	1980	0.025	6	1980	0.025	6	1980	0.050	
15:00 - 16:00	6	1980	0.017	6	1980	0.008	6	1980	0.025	
16:00 - 17:00	6	1980	0.017	6	1980	0.034	6	1980	0.051	
17:00 - 18:00	6	1980	0.025	6	1980	0.008	6	1980	0.033	
18:00 - 19:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
19:00 - 20:00	6	1980	0.008	6	1980	0.008	6	1980	0.016	
20:00 - 21:00	6	1980	0.008	6	1980	0.000	6	1980	0.008	
21:00 - 22:00	5	2070	0.000	5	2070	0.019	5	2070	0.019	
22:00 - 23:00	3	2491	0.000	3	2491	0.013	3	2491	0.013	
23:00 - 24:00										
Total Rates:			0.265			0.259			0.524	

Longbridge Technology Park

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.

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RATE TRIP RATE GRAPH - TOTALS 01 - RETAIL C - DISCOUNT FOOD STORES OGVS 96

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

The Innovation Centre

Phil Jones Associates

		ARRIVALS		[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2511	0.000	2	2511	0.000	2	2511	0.000	
07:00 - 08:00	5	2070	0.010	5	2070	0.000	5	2070	0.010	
08:00 - 09:00	6	1980	0.000	6	1980	0.008	6	1980	0.008	
09:00 - 10:00	6	1980	0.008	6	1980	0.000	6	1980	0.008	
10:00 - 11:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
11:00 - 12:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
12:00 - 13:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
13:00 - 14:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
14:00 - 15:00	6	1980	0.008	6	1980	0.017	6	1980	0.025	
15:00 - 16:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
16:00 - 17:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
17:00 - 18:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
18:00 - 19:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
19:00 - 20:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
20:00 - 21:00	6	1980	0.000	6	1980	0.000	6	1980	0.000	
21:00 - 22:00	5	2070	0.000	5	2070	0.000	5	2070	0.000	
22:00 - 23:00	3	2491	0.000	3	2491	0.000	3	2491	0.000	
23:00 - 24:00										
Total Rates:			0.026			0.025			0.051	

Longbridge Technology Park

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.

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TIME RATE % TRIP RATE GRAPH - TOTALS 01 - RETAIL C - DISCOUNT FOOD STORES PSVS



TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

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

The Innovation Centre

Phil Jones Associates

		ARRIVALS		[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2511	0.020	2	2511	0.000	2	2511	0.020	
07:00 - 08:00	5	2070	0.000	5	2070	0.010	5	2070	0.010	
08:00 - 09:00	6	1980	0.067	6	1980	0.025	6	1980	0.092	
09:00 - 10:00	6	1980	0.034	6	1980	0.034	6	1980	0.068	
10:00 - 11:00	6	1980	0.042	6	1980	0.051	6	1980	0.093	
11:00 - 12:00	6	1980	0.008	6	1980	0.025	6	1980	0.033	
12:00 - 13:00	6	1980	0.051	6	1980	0.034	6	1980	0.085	
13:00 - 14:00	6	1980	0.067	6	1980	0.034	6	1980	0.101	
14:00 - 15:00	6	1980	0.051	6	1980	0.059	6	1980	0.110	
15:00 - 16:00	6	1980	0.118	6	1980	0.076	6	1980	0.194	
16:00 - 17:00	6	1980	0.067	6	1980	0.067	6	1980	0.134	
17:00 - 18:00	6	1980	0.076	6	1980	0.093	6	1980	0.169	
18:00 - 19:00	6	1980	0.059	6	1980	0.034	6	1980	0.093	
19:00 - 20:00	6	1980	0.025	6	1980	0.059	6	1980	0.084	
20:00 - 21:00	6	1980	0.017	6	1980	0.042	6	1980	0.059	
21:00 - 22:00	5	2070	0.000	5	2070	0.039	5	2070	0.039	
22:00 - 23:00	3	2491	0.000	3	2491	0.013	3	2491	0.013	
23:00 - 24:00										
Total Rates:			0.702			0.695			1.397	

Longbridge Technology Park

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.

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Licence No: 231601



RATE TRIP RATE GRAPH - TOTALS 01 - RETAIL C - DISCOUNT FOOD STORES CYCLISTS %



Appendix G Trip Distribution and Assignment Calculations



File Name: 05003_Trip Generation, Distribution and Assignment.xlsm

Worksheet: New Trips

Area Name	Area Code	Travel Time (minutes)	2018 Population (LSOA)	Pop/Time	Percentage Draw	Pop/Time Weighted	Percentage Draw (Weighted)
Coventry 011C	E01009625	4.8	2,492	518	2%	518	2%
Coventry 012A	E01009622	4.4	1,972	449	2%	449	2%
Coventry 012C	E01009627	4.9	1,839	375	1%	375	1%
Coventry 012D	E01009628	2.9	1,734	601	2%	601	2%
Coventry 014A	E01009522	3.4	1,464	434	2%	434	2%
Coventry 014B	E01009529	4.9	1,601	329	1%	329	1%
Coventry 014C	E01009530	5.1	1,482	293	1%	293	1%
Coventry 014D	E01009645	2.9	1,586	538	2%	538	2%
Coventry 015E	E01009573	4.4	1,650	373	1%	373	1%
Coventry 015F	E01009574	4.6	1,740	374	1%	374	1%
Coventry 017A	E01009643	2.5	1,530	620	2%	620	2%
Coventry 017B	E01009644	3.2	1,800	561	2%	561	2%
Coventry 017C	E01009647	1.0	1,875	1,845	7%	1,845	7%
Coventry 017D	E01009648	1.6	1,567	1,010	4%	1,010	4%
Coventry 017E	E01009652	4.3	1,453	336	1%	336	1%
Coventry 017F	E01009653	3.9	1,603	416	2%	416	2%
Coventry 020A	E01009629	4.8	3,586	749	3%	749	3%
Coventry 020B	E01009630	3.0	1,913	647	3%	647	3%
Coventry 020C	E01009631	3.0	1,538	521	2%	521	2%
Coventry 020D	E01009632	3.4	2,367	695	3%	695	3%
Coventry 020E	E01009650	2.4	2,280	948	4%	948	4%
Coventry 022A	E01009646	4.2	1,580	373	1%	373	1%
Coventry 022D	E01009694	4.8	1,545	319	1%	319	1%
Coventry 023C	E01009635	5.2	5,198	995	4%	995	4%
Coventry 024C	E01009638	5.2	1,906	365	1%	365	1%
Coventry 024F	E01009641	5.2	4,791	917	4%	917	4%
Coventry 026A	E01009649	2.5	1,509	598	2%	598	2%
Coventry 026B	E01009684	5.8	1,566	270	1%	270	1%
Coventry 026C	E01009685	4.4	1,714	392	2%	392	2%
Coventry 026D	E01009686	5.0	1,812	366	1%	366	1%
Coventry 026E	E01009687	3.6	1,473	410	2%	410	2%
Coventry 028B	E01009634	5.2	2,612	500	2%	500	2%
Coventry 030A	E01009688	2.3	1,747	746	3%	746	3%
Coventry 030B	E01009689	3.8	2,032	538	2%	538	2%
Coventry 030C	E01009690	3.5	1,763	508	2%	508	2%
Coventry 030D	E01009691	4.0	1,585	395	2%	395	2%
Coventry 031A	E01009548	4.6	3,028	653	3%	653	3%
Coventry 031B	E01009553	4.0	2,837	705	3%	705	3%
Coventry 031C	E01009642	5.5	7,466	1,348	5%	1,348	5%
Coventry 031D	E01009651	2.3	2,144	924	4%	924	4%
Coventry 034A	E01009554	5.8	1,425	245	1%	245	1%
Coventry 034C	E01009556	5.2	1,676	321	1%	321	1%
Coventry 034E	E01009558	4.7	1,520	323	1%	323	1%
Coventry 037B	E01009549	5.1	1,915	376	1%	376	1%
Coventry 037C	E01009550	5.2	2,071	400	2%	400	2%
TOTAL			95,987	25,619	100%	25,619	100%

Pouto	% Distribution		AIVI	PIVI				
Noute	/aDistribution	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way	
A	27%	7	5	11	12	13	24	
В	16%	4	3	7	7	7	14	
С	16%	4	3	7	7	7	14	
D	18%	5	3	8	8	8	16	
E	17%	4	3	7	7	8	15	
F	5%	1	1	2	2	2	5	
Total	100%	25	17	42	43	46	89	



File Name: 05003_Trip Generation, Distribution and Assignment.xlsm

Worksheet: Pass-By Trips

Northbound	531	38%
Southbound	854	62%
Northbound	976	56%
Southbound	760	44%
Northbound	731	47%
Southbound	839	53%
	Northbound Southbound Northbound Southbound Northbound Southbound	Northbound531Southbound854Northbound976Southbound760Northbound731Southbound839

		AM				PM				Saturday		
Route	%Distribution	Arrivals	Departures	Two-Way	%Distribution	Arrivals	Departures	Two-Way	%Distribution	Arrivals	Departures	Two-Way
Northbound	38%	7	4	11	56%	17	18	35	47%	21	21	42
Southbound	62%	11	7	18	44%	13	14	27	53%	24	24	49
Total	100%	17	12	29	100%	30	32	62	100%	45	46	91



Previous Route*	New Arrival Route	Departure Route (back to original route)
Moseley Avenue (Ahead)	Moseley Avenue (Left)	Left
Moseley Avenue (Right)	Moseley Avenue (Left)	Ahead
our Pounds Avenue (Ahead)	Four Pounds Avenue (Right)	Right
our Pounds Avenue (Left)	Four Pounds Avenue (Right)	Ahead
4114 Holyhead Road (E) (Left)	A4114 Holyhead Road (E) (Ahead)	Right
4114 Holyhead Road (E) (Right)	A4114 Holyhead Road (E) (Ahead)	Left

at site access are all "new trips" beyond this iunction are not new trips.



























Appendix H Junction Capacity Modelling Outputs



Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: Holyhead Road - Site Access Roundabout Junction - Lane SIm.j9 **Path:** C:\PJA\Phil Jones Associates\SharedData - 05003 Lidl, Holyhead Road\3. Technical\3.2 Modelling **Report generation date:** 12/08/2020 09:24:45

»Proposed Roundabout Arrangement - 2022 Existing , PM »Proposed Roundabout Arrangement - 2022 Opening Year , PM »Proposed Roundabout Arrangement - 2027 Future Year , PM »Proposed Roundabout Arrangement - 2027 Sensitivity, PM

Summary of junction performance

		PM		
	Queue (PCU)	Delay (s)	RFC	LOS
	Proposed Roundabout Arr	angement [Lane Simu	lation] - 2022	Existing
Arm 1	0.1	6.00		A
Arm 2	7.7	25.24		D
Arm 3	0.4	4.98		A
Arm 4	5.8	25.62		D
	Proposed Roundabout Arran	gement [Lane Simulat	ion] - 2022 Op	pening Year
Arm 1	0.2	6.64		A
Arm 2	10.0	31.13		D
Arm 3	0.4	5.14		А
Arm 4	9.8	38.71		E
	Proposed Roundabout Arran	ngement [Lane Simula	tion] - 2027 F	uture Year
Arm 1	0.2	6.55		A
Arm 2	16.9	51.76		F
Arm 3	0.4	5.29		A
Arm 4	15.7	59.58		F
	Proposed Roundabout Arra	ngement [Lane Simula	ation] - 2027 S	Sensitivity
Arm 1	0.3	6.91		A
Arm 2	19.7	57.59		F
Arm 3	0.4	5.37		А
Arm 4	19.3	71.66		F

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. Arm and junction delays are averages for all movements, including movements with zero delay.



File summary

File Description

Title	Holyhead Road/Site Access Roundabout
Location	Holyhead Road, Coventry
Site number	05003
Date	10/08/2020
Version	
Status	(new file)
Identifier	
Client	Lidl
Jobnumber	05003
Enumerator	PJA\Lianne Brook
Description	

Units

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

Analysis Options

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

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			154518264	272	23.62

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Existing	PM	FLAT	17:00	18:00	60	15	✓
D2	2022 Opening Year	PM	FLAT	17:00	18:00	60	15	✓
D3	2027 Future Year	PM	FLAT	17:00	18:00	60	15	✓
D4	2027 Sensitivity	PM	FLAT	17:00	18:00	60	15	~

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Proposed Roundabout Arrangement	✓	~	100.000	100.000



Proposed Roundabout Arrangement - 2022 Existing , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - Proposed Roundabout Arrangement [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Holyhead Road/Site Access	Standard Roundabout		1, 2, 3, 4	22.87	С

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Site Access	
2	Holyhead Road East	
3	Four Pounds Avenue	
4	Holyhead Road West	

Roundabout Geometry

Arm	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.25	6.00	2.6	15.0	42.0	33.5	
2	3.80	9.00	24.0	80.0	42.0	15.0	
3	6.00	8.50	10.0	65.0	42.0	14.0	
4	3.80	6.80	32.0	13.5	42.0	33.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.518	1141
2	0.776	2267
3	0.810	2439
4	0.643	1785

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



Lane Simulation: Arm options

	Arm	Lane capacity source	Traffic considering secondary lanes (%)
	1	Evenly split	10.00
	2	Evenly split	10.00
ľ	3	Evenly split	10.00
ſ	4	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
	Entry	1	1	1, 2, 3, 4		Infinity		0	99999	
' [Exit	1	1			Infinity				
		4	1	3	~	4.00		0	99999	
2	Entry	1	2	1, 2, 4	~	4.00		0	99999	
2		2	1	(1, 2, 3, 4)		Infinity				
	Exit	1	1			Infinity				
	Enter		1	4		Infinity		0	99999	
3	Entry		2	2		Infinity		0	99999	
	Exit	1	1			Infinity				
			1	1, 2	~	4.00		0	99999	
	Entry		2	3	~	4.00		0	99999	
4		2	1	(1, 2, 3, 4)		Infinity				
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1	Entry	1	1	0.518	1141
2	Entry	4	1	0.388	1133
2	Entry	•	2	0.388	1133
-	Enter		1	0.405	1219
3	Entry	1	2	0.405	1219
4	Entry	4	1	0.321	892
4	Entry	Entry 1		0.321	892

Summary of Entry Lane allowed movements

A		Lana	Destination arm				
Ann	Lane Lever	Lane	1	2	3	4	
1	1	1	~	~	✓	1	
	4	1			~		
2	1	2	~	~		✓	
	2	1	~	~	~	~	
•	4	1				~	
3	1	2		~			
	4	1	~	~			
4	1	2			~		
	2	1	✓	✓	~	~	

Traffic Demand

Demand Set Details

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time period length	Time segment length	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	(min)	automatically
D1	2022 Existing	PM	FLAT	17:00	18:00	60	15	✓



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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		FLAT	✓	63	100.000
2		FLAT	✓	1036	100.000
3		FLAT	✓	200	100.000
4		FLAT	✓	812	100.000

Origin-Destination Data

Demand (PCU/hr)

	То						
		1	2	3	4		
	1	0	29	0	34		
From	2	12	0	100	924		
	3	0	100	0	100		
	4	12	700	100	0		

Vehicle Mix

Heavy Vehicle Percentages

	То					
		1	2	3	4	
	1	0	0	0	0	
From	2	0	0	0	4	
	3	0	0	0	0	
	4	0	4	0	0	

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	6.00	0.1	А	63	63
2	25.24	7.7	D	1037	1037
3	4.98	0.4	А	203	203
4	25.62	5.8	D	815	815

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	63	16	910	63	64	25	0.0	0.1	5.699	A
2	1032	258	135	1024	1011	838	0.0	6.8	20.577	С
3	209	52	960	210	202	200	0.0	0.3	4.975	A
4	818	205	119	817	796	1051	0.0	5.8	22.808	С



17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	65	16	900	65	63	24	0.1	0.1	5.997	A
2	1050	263	136	1042	1033	829	6.8	7.7	25.239	D
3	201	50	978	201	200	200	0.3	0.4	4.977	A
4	807	202	111	813	817	1067	5.8	5.1	24.712	С

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	61	15	913	61	65	24	0.1	0.1	5.837	А
2	1035	259	137	1036	1036	838	7.7	6.6	24.116	С
3	204	51	967	204	202	206	0.4	0.2	4.946	А
4	825	206	113	824	812	1058	5.1	5.8	25.620	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	65	16	898	64	63	23	0.1	0.1	5.935	A
2	1033	258	136	1036	1032	826	6.6	7.0	24.158	С
3	197	49	972	198	201	200	0.2	0.3	4.974	A
4	810	203	110	811	812	1060	5.8	5.7	25.205	D

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	63	670	0.094	63	64	0.0	0.1	5.699	А
	Exit	1	1		25			25	24	0.0	0.0	0.000	А
		4	1	3	100	1081	0.093	100	98	0.0	0.1	3.825	A
2	Entry		2	1, 2, 4	923	1081	0.854	924	913	0.0	2.7	10.445	В
2		2	1	(1, 2, 3, 4)	1032			1023	1022	0.0	4.0	10.758	В
	Exit	1	1		838			838	814	0.0	0.0	0.000	А
	Enter	4	1	4	104	831	0.125	104	102	0.0	0.1	4.909	А
3	Enuy		2	2	106	831	0.127	106	100	0.0	0.1	5.042	А
	Exit	1	1		200			200	197	0.0	0.0	0.000	А
		4	1	1, 2	717	854	0.840	717	696	0.0	2.6	12.838	В
	Entry	1	2	3	100	854	0.117	100	99	0.0	0.1	4.757	А
4		2	1	(1, 2, 3, 4)	818			817	807	0.0	3.1	10.950	В
	Exit	1	1		1051			1051	1038	0.0	0.0	0.000	A



17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	65	675	0.096	65	63	0.1	0.1	5.997	А
	Exit	1	1		24			24	24	0.0	0.0	0.000	А
		4	1	3	99	1081	0.091	99	98	0.1	0.1	3.797	А
	Entry	1	2	1, 2, 4	944	1081	0.874	943	935	2.7	2.8	10.813	В
2		2	1	(1, 2, 3, 4)	1050			1043	1034	4.0	4.7	15.101	С
	Exit	1	1		829			829	833	0.0	0.0	0.000	А
	Entra		1	4	101	823	0.123	101	100	0.1	0.2	5.003	А
3	Entry	1	2	2	100	823	0.122	100	101	0.1	0.2	4.950	А
	Exit	1	1		200			200	200	0.0	0.0	0.000	А
			1	1, 2	711	856	0.830	712	715	2.6	2.5	13.118	В
	Entry	1	2	3	102	856	0.119	101	102	0.1	0.1	4.911	А
4	4	2	1	(1, 2, 3, 4)	807			813	817	3.1	2.4	12.665	В
	Exit	1	1		1067			1067	1056	0.0	0.0	0.000	А

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
	Entry	1	1	1, 2, 3, 4	61	669	0.091	61	65	0.1	0.1	5.837	A
1	Exit	1	1		24			24	24	0.0	0.0	0.000	A
		4	1	3	101	1080	0.093	101	101	0.1	0.1	3.717	А
_	Entry	1	2	1, 2, 4	935	1080	0.865	935	936	2.8	2.8	10.829	В
2		2	1	(1, 2, 3, 4)	1035			1035	1036	4.7	3.7	14.020	В
	Exit	1	1		838			838	830	0.0	0.0	0.000	А
	Enter		1	4	102	828	0.124	102	100	0.2	0.1	4.973	A
3	Entry	1	2	2	102	828	0.123	102	102	0.2	0.1	4.919	A
	Exit	1	1		206			206	202	0.0	0.0	0.000	А
			1	1, 2	720	856	0.841	719	710	2.5	2.5	13.005	В
	Entry	1	2	3	105	856	0.122	105	101	0.1	0.1	4.914	A
4		2	1	(1, 2, 3, 4)	825			824	812	2.4	3.1	13.645	В
	Exit	1	1		1058			1058	1059	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	65	676	0.095	64	63	0.1	0.1	5.935	А
•	Exit	1	1		23			23	24	0.0	0.0	0.000	А
		4	1	3	99	1080	0.092	99	100	0.1	0.1	3.684	А
2	Entry		2	1, 2, 4	937	1080	0.867	937	932	2.8	2.8	10.798	В
2		2	1	(1, 2, 3, 4)	1033			1036	1032	3.7	4.1	14.120	В
	Exit	1	1		826			826	829	0.0	0.0	0.000	А
	Entry	4	1	4	99	826	0.120	99	101	0.1	0.2	4.885	А
3	Entry		2	2	98	826	0.119	98	100	0.1	0.1	5.065	А
	Exit	1	1		200			200	200	0.0	0.0	0.000	А
		4	1	1, 2	711	857	0.830	710	712	2.5	2.7	13.022	В
4	Entry		2	3	102	857	0.118	101	101	0.1	0.2	4.873	А
4		2	1	(1, 2, 3, 4)	810			813	813	3.1	2.8	13.298	В
	Exit	1	1		1060			1060	1055	0.0	0.0	0.000	A



Proposed Roundabout Arrangement - 2022 Opening Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - Proposed Roundabout Arrangement [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Holyhead Road/Site Access	Standard Roundabout		1, 2, 3, 4	30.47	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Start time Finish time (HH:mm) (HH:mm)		Time segment length (min)	Run automatically
D2	2022 Opening Year	PM	FLAT	17:00	18:00	60	15	~

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		FLAT	~	115	100.000
2		FLAT	~	1052	100.000
3		FLAT	✓	200	100.000
4		FLAT	~	852	100.000

Origin-Destination Data

Demand (PCU/hr)

	То								
		1	2	3	4				
	1	0	43	0	72				
From	2	45	0	100	907				
	3	0	100	0	100				
	4	65	687	100	0				

Vehicle Mix



Heavy Vehicle Percentages

		То									
		1	2	3	4						
	1	0	0	0	0						
From	2	0	0	0	4						
	3	0	0	0	0						
	4	0	4	0	0						

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)		
1	6.64	0.2	А	114	114		
2	31.13	10.0	D	1052	1052		
3	5.14	0.4	А	198	198		
4	38.71	9.8	E	858	858		

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	115	29	881	115	119	113	0.0	0.2	6.163	А
2	1053	263	171	1046	1022	826	0.0	8.8	24.776	С
3	198	49	1020	197	200	196	0.0	0.3	4.970	A
4	864	216	146	848	819	1072	0.0	8.3	28.624	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	116	29	886	116	115	112	0.2	0.2	6.644	A
2	1059	265	171	1054	1046	831	8.8	10.0	31.126	D
3	194	49	1026	195	199	198	0.3	0.3	5.142	A
4	866	217	144	855	853	1077	8.3	9.8	38.710	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	115	29	874	116	114	110	0.2	0.2	6.392	A
2	1048	262	167	1046	1051	822	10.0	8.3	28.248	D
3	204	51	1020	203	200	194	0.3	0.4	5.012	A
4	838	210	145	839	856	1078	9.8	8.1	37.290	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	110	28	889	110	111	111	0.2	0.2	6.253	А
2	1046	261	169	1040	1042	831	8.3	8.7	28.007	D
3	198	49	1009	199	203	200	0.4	0.3	5.059	А
4	863	216	148	853	852	1060	8.1	8.5	34.918	D



Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	115	685	0.168	115	119	0.0	0.2	6.163	А
	Exit	1	1		113			113	107	0.0	0.0	0.000	А
		4	1	3	97	1067	0.091	97	99	0.0	0.1	3.773	А
2	Entry		2	1, 2, 4	950	1067	0.890	948	923	0.0	3.2	11.069	В
		2	1	(1, 2, 3, 4)	1053			1047	1035	0.0	5.6	14.380	В
	Exit	1	1		826			826	806	0.0	0.0	0.000	А
		1	1	4	100	806	0.123	99	100	0.0	0.1	4.987	А
3	Entry	1	2	2	98	806	0.122	98	100	0.0	0.2	4.952	А
	Exit	1	1		196			196	194	0.0	0.0	0.000	А
			1	1, 2	749	845	0.886	749	724	0.0	2.9	13.691	В
4	Entry	1	2	3	100	845	0.118	99	95	0.0	0.2	5.007	А
		2	1	(1, 2, 3, 4)	864			848	831	0.0	5.3	15.882	С
	Exit	1	1		1072			1072	1052	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service	
	Entry	1	1	1, 2, 3, 4	116	683	0.170	116	115	0.2	0.2	6.644	А	
1	Exit	1	1		112			112	108	0.0	0.0	0.000	А	
		4	1	3	99	1067	0.093	98	99	0.1	0.2	3.771	А	
2	Entry		2	1, 2, 4	956	1067	0.895	955	947	3.2	3.1	11.400	В	
		2	1	(1, 2, 3, 4)	1059			1054	1046	5.6	6.7	20.482	С	
	Exit	1	1		831			831	832	0.0	0.0	0.000	А	
		4	1	4	96	804	0.120	97	98	0.1	0.1	5.238	А	
3	Entry	1	2	2	98	804	0.122	98	101	0.2	0.2	5.049	А	
	Exit	1	1		198			198	200	0.0	0.0	0.000	А	
				1	1, 2	756	846	0.893	755	752	2.9	3.1	14.504	В
4	Entry	1	2	3	99	846	0.117	100	101	0.2	0.1	5.149	А	
	, -	2	1	(1, 2, 3, 4)	866			855	854	5.3	6.6	25.350	D	
	Exit	1	1		1077			1077	1073	0.0	0.0	0.000	A	

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1, 2, 3, 4	115	689	0.167	116	114	0.2	0.2	6.392	А
	Exit	1	1		110			110	112	0.0	0.0	0.000	А
		4	1	3	97	1068	0.090	97	99	0.2	0.1	3.864	А
	Entry		2	1, 2, 4	948	1068	0.888	949	952	3.1	3.0	11.275	В
2		2	1	(1, 2, 3, 4)	1048			1045	1050	6.7	5.2	17.699	С
	Exit	1	1		822			822	831	0.0	0.0	0.000	А
	=	1	1	4	103	806	0.128	102	100	0.1	0.2	4.960	А
3	Entry		1	2	2	101	806	0.125	100	100	0.2	0.2	5.064
	Exit	1	1		194			194	201	0.0	0.0	0.000	А
			1	1, 2	742	846	0.877	742	754	3.1	3.0	14.492	В
4	Entry		2	3	97	846	0.115	97	102	0.1	0.1	5.000	A
		2	1	(1, 2, 3, 4)	838			839	856	6.6	5.0	23.965	С
	Exit	1	1		1078			1078	1077	0.0	0.0	0.000	A



17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1, 2, 3, 4	110	681	0.162	110	111	0.2	0.2	6.253	А
	Exit	1	1		111			111	111	0.0	0.0	0.000	А
			1	3	99	1068	0.093	98	99	0.1	0.1	3.751	А
_	Entry	1	2	1, 2, 4	942	1068	0.882	942	943	3.0	3.0	11.209	В
2		2	1	(1, 2, 3, 4)	1046			1041	1042	5.2	5.6	17.611	С
	Exit	1	1		831			831	833	0.0	0.0	0.000	А
			1	4	96	811	0.118	96	100	0.2	0.1	5.043	А
3	Entry	1	2	2	102	811	0.126	103	103	0.2	0.1	5.074	А
	Exit	1	1		200			200	199	0.0	0.0	0.000	А
		4	1	1, 2	751	845	0.889	751	752	3.0	3.0	14.406	В
4	Entry		2	3	102	845	0.120	102	100	0.1	0.1	5.049	А
		2	1	(1, 2, 3, 4)	863			853	852	5.0	5.3	21.763	С
	Exit	1	1		1060			1060	1064	0.0	0.0	0.000	A



Proposed Roundabout Arrangement - 2027 Future Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - Proposed Roundabout Arrangement [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Arm 2 - Lane Simulation	Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Arm 4 - Lane Simulation	Arm 4: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Holyhead Road/Site Access	Standard Roundabout		1, 2, 3, 4	48.57	E

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 period length (min)	Time segment length (min)	Run automatically
D3	2027 Future Year	PM	FLAT	17:00	18:00	60	15	~

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		FLAT	~	115	100.000
2		FLAT	~	1104	100.000
3		FLAT	✓	200	100.000
4		FLAT	✓	892	100.000

Origin-Destination Data

Demand (PCU/hr)

		То								
		1	2	3	4					
	1	0	43	0	72					
From	2	45	0	100	959					
	3	0	100	0	100					
	4	65	727	100	0					



Vehicle Mix

Heavy Vehicle Percentages

		То									
		1	2	3	4						
	1	0	0	0	0						
From	2	0	0	0	4						
	3	0	0	0	0						
	4	0	4	0	0						

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	
1	6.55	0.2	А	115	115	
2	51.76	16.9	F	1096	1096	
3	5.29	0.4	A	197	197	
4	59.58	15.7	F	894	894	

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	114	29	919	114	115	107	0.0	0.1	6.103	A
2	1089	272	170	1091	1062	863	0.0	11.2	30.692	D
3	199	50	1065	198	201	196	0.0	0.4	5.159	A
4	896	224	144	883	853	1119	0.0	10.9	35.254	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	115	29	921	116	115	109	0.1	0.2	6.465	A
2	1095	274	172	1102	1089	864	11.2	13.9	44.263	E
3	199	50	1075	198	203	200	0.4	0.3	5.291	A
4	898	225	145	885	878	1128	10.9	14.8	53.555	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	115	29	923	115	115	104	0.2	0.2	6.549	А
2	1106	277	168	1090	1095	871	13.9	16.9	50.900	F
3	193	48	1063	193	201	195	0.3	0.3	5.232	A
4	887	222	142	885	889	1114	14.8	15.0	59.576	F



17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	115	29	921	115	114	110	0.2	0.2	6.466	А
2	1093	273	170	1103	1105	866	16.9	15.5	51.765	F
3	197	49	1077	197	196	196	0.3	0.3	5.227	А
4	895	224	143	888	886	1131	15.0	15.7	58.018	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	114	666	0.172	114	115	0.0	0.1	6.103	А
1	Exit	1	1		107			107	106	0.0	0.0	0.000	A
			1	3	97	1067	0.091	97	98	0.0	0.1	3.896	А
_	Entry	1	2	1, 2, 4	992	1067	0.929	994	964	0.0	3.2	11.472	В
2		2	1	(1, 2, 3, 4)	1089			1089	1075	0.0	7.9	19.879	С
	Exit	1	1		863			863	835	0.0	0.0	0.000	А
	Frateria	1	1	4	98	788	0.124	97	101	0.0	0.2	5.185	A
3	Entry	1	2	2	101	788	0.129	101	99	0.0	0.2	5.133	A
	Exit	1	1		196			196	194	0.0	0.0	0.000	A
4			1	1, 2	784	846	0.927	784	756	0.0	3.2	14.259	В
	Entry	1	2	3	99	846	0.117	99	96	0.0	0.1	4.984	A
		2	1	(1, 2, 3, 4)	896			884	866	0.0	7.6	21.964	С
	Exit	1	1		1119			1119	1095	0.0	0.0	0.000	А

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1, 2, 3, 4	115	665	0.174	116	115	0.1	0.2	6.465	А
•	Exit	1	1		109			109	110	0.0	0.0	0.000	A
		4	1	3	101	1066	0.095	101	99	0.1	0.1	3.732	A
2	Entry		2	1, 2, 4	1001	1066	0.938	1001	990	3.2	3.4	12.110	В
2		2	1	(1, 2, 3, 4)	1095			1102	1090	7.9	10.3	32.942	D
	Exit	1	1		864			864	859	0.0	0.0	0.000	А
	Entry	1	1	4	100	784	0.128	100	102	0.2	0.1	5.351	А
3	Linuy		2	2	98	784	0.126	99	101	0.2	0.1	5.230	A
	Exit	1	1		200			200	196	0.0	0.0	0.000	А
		4	1	1, 2	788	846	0.931	787	781	3.2	3.4	15.265	С
4	Entry		2	3	97	846	0.115	98	97	0.1	0.1	5.108	A
		2	1	(1, 2, 3, 4)	898			885	879	7.6	11.3	39.471	E
	Exit	1	1		1128			1128	1119	0.0	0.0	0.000	A



17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	115	663	0.173	115	115	0.2	0.2	6.549	А
1	Exit	1	1		104			104	110	0.0	0.0	0.000	А
		4	1	3	99	1068	0.093	99	100	0.1	0.1	3.906	А
_	Entry	1	2	1, 2, 4	995	1068	0.931	992	995	3.4	3.5	12.220	В
2		2	1	(1, 2, 3, 4)	1106			1093	1095	10.3	13.3	39.437	E
	Exit	1	1		871			871	871	0.0	0.0	0.000	А
	Entry	1	1	4	94	789	0.119	94	99	0.1	0.1	5.170	А
3	Entry	1	2	2	99	789	0.125	99	102	0.1	0.1	5.293	А
	Exit	1	1		195			195	199	0.0	0.0	0.000	А
			1	1, 2	788	847	0.931	789	790	3.4	3.2	15.342	С
4	Entry	1	2	3	96	847	0.114	96	99	0.1	0.1	5.079	А
		2	1	(1, 2, 3, 4)	887			884	889	11.3	11.6	45.390	E
	Exit	1	1		1114			1114	1121	0.0	0.0	0.000	А

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
	Entry	1	1	1, 2, 3, 4	115	665	0.174	115	114	0.2	0.2	6.466	A
1	Exit	1	1		110			110	110	0.0	0.0	0.000	A
			1	3	99	1067	0.092	99	98	0.1	0.1	3.846	А
_	Entry	1	2	1, 2, 4	1003	1067	0.940	1004	1006	3.5	3.3	12.210	В
2		2	1	(1, 2, 3, 4)	1093			1101	1104	13.3	12.1	40.444	E
	Exit	1	1		866			866	865	0.0	0.0	0.000	А
	Entra	1	1	4	100	783	0.128	100	98	0.1	0.2	5.157	A
3	Entry	1	2	2	97	783	0.124	97	98	0.1	0.2	5.296	A
	Exit	1	1		196			196	196	0.0	0.0	0.000	A
			1	1, 2	789	846	0.933	790	789	3.2	3.3	15.228	С
4	Entry	1	2	3	98	846	0.116	97	98	0.1	0.2	5.142	A
		2	1	(1, 2, 3, 4)	895			887	887	11.6	12.2	44.176	E
	Exit	1	1		1131			1131	1131	0.0	0.0	0.000	A



Proposed Roundabout Arrangement - 2027 Sensitivity, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - Proposed Roundabout Arrangement [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Arm 2 - Lane Simulation	Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Arm 4 - Lane Simulation	Arm 4: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Holyhead Road/Site Access	Standard Roundabout		1, 2, 3, 4	55.80	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2027 Sensitivity	PM	FLAT	17:00	18:00	60	15	~

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		FLAT	~	129	100.000
2		FLAT	~	1112	100.000
3		FLAT	✓	200	100.000
4		FLAT	✓	905	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1	2	3	4
	1	0	48	0	81
From	2	53	0	100	959
	3	0	100	0	100
	4	78	727	100	0



Vehicle Mix

Heavy Vehicle Percentages

			То		
		1	2	3	4
	1	0	0	0	0
From	2	0	0	0	4
	3	0	0	0	0
	4	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	6.91	0.3	А	129	129
2	57.59	19.7	F	1114	1114
3	5.37	0.4	A	198	198
4	71.66	19.3	F	903	903

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	129	32	909	128	133	133	0.0	0.2	6.488	A
2	1117	279	180	1096	1056	857	0.0	13.1	32.067	D
3	191	48	1080	190	199	197	0.0	0.4	5.207	A
4	912	228	145	897	853	1125	0.0	12.5	37.634	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	129	32	917	130	129	128	0.2	0.2	6.889	A
2	1112	278	181	1110	1101	866	13.1	15.9	49.180	E
3	203	51	1087	201	201	204	0.4	0.4	5.324	A
4	899	225	154	891	893	1134	12.5	16.2	59.777	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	33	915	130	128	131	0.2	0.3	6.905	А
2	1109	277	181	1103	1097	864	15.9	17.4	54.918	F
3	205	51	1086	206	206	198	0.4	0.3	5.369	A
4	911	228	153	894	899	1140	16.2	17.5	66.439	F



17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	128	32	906	128	129	128	0.3	0.3	6.741	А
2	1119	280	175	1102	1102	859	17.4	19.7	57.586	F
3	195	49	1077	195	202	200	0.3	0.3	5.285	А
4	891	223	148	886	890	1123	17.5	19.3	71.665	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	129	671	0.192	128	133	0.0	0.2	6.488	A
1	Exit	1	1		133			133	126	0.0	0.0	0.000	A
			1	3	98	1063	0.092	99	96	0.0	0.1	3.807	A
_	Entry	1	2	1, 2, 4	998	1063	0.939	998	960	0.0	3.4	11.481	В
2		2	1	(1, 2, 3, 4)	1117			1097	1070	0.0	9.7	21.228	С
	Exit	1	1		857			857	832	0.0	0.0	0.000	A
	Enter		1	4	98	782	0.125	98	99	0.0	0.2	5.229	A
3	Entry	1	2	2	93	782	0.119	92	100	0.0	0.2	5.185	A
	Exit	1	1		197			197	191	0.0	0.0	0.000	A
			1	1, 2	800	846	0.946	799	758	0.0	3.5	14.513	В
	Entry	1	2	3	97	846	0.115	98	95	0.0	0.1	4.944	A
4		2	1	(1, 2, 3, 4)	912			897	867	0.0	8.9	24.145	С
-	Exit	1	1		1125			1125	1092	0.0	0.0	0.000	А

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	129	667	0.193	130	129	0.2	0.2	6.889	А
•	Exit	1	1		128			128	131	0.0	0.0	0.000	A
		4	1	3	105	1063	0.098	103	100	0.1	0.2	3.863	A
2	Entry	1	2	1, 2, 4	1007	1063	0.947	1007	1000	3.4	3.5	12.330	В
2		2	1	(1, 2, 3, 4)	1112			1111	1102	9.7	12.1	37.631	E
	Exit	1	1		866			866	866	0.0	0.0	0.000	А
	Entry	1	1	4	101	779	0.130	100	101	0.2	0.2	5.209	A
3	Linuy		2	2	102	779	0.130	100	100	0.2	0.2	5.439	A
	Exit	1	1		204			204	198	0.0	0.0	0.000	А
		4	1	1, 2	790	843	0.937	790	795	3.5	3.5	15.545	С
	Entry	1	2	3	102	843	0.121	101	97	0.1	0.2	5.148	А
4		2	1	(1, 2, 3, 4)	899			892	893	8.9	12.5	45.363	E
	Exit	1	1		1134			1134	1129	0.0	0.0	0.000	A



17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
4	Entry	1	1	1, 2, 3, 4	131	668	0.196	130	128	0.2	0.3	6.905	А
1	Exit	1	1		131			131	129	0.0	0.0	0.000	А
		4	1	3	100	1063	0.094	99	99	0.2	0.1	3.974	А
_	Entry	1	2	1, 2, 4	1004	1063	0.944	1004	997	3.5	3.3	12.152	В
2		2	1	(1, 2, 3, 4)	1109			1104	1096	12.1	13.9	43.539	E
	Exit	1	1		864			864	873	0.0	0.0	0.000	А
	Entry	4	1	4	105	779	0.135	105	103	0.2	0.1	5.367	А
3	Entry	1	2	2	100	779	0.129	101	103	0.2	0.1	5.372	А
	Exit	1	1		198			198	198	0.0	0.0	0.000	A
			1	1, 2	796	843	0.944	795	800	3.5	3.5	15.736	С
	Entry	1	2	3	98	843	0.117	98	99	0.2	0.1	5.113	А
4		2	1	(1, 2, 3, 4)	911			894	898	12.5	14.0	51.898	F
	Exit	1	1		1140			1140	1130	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
	Entry	1	1	1, 2, 3, 4	128	672	0.191	128	129	0.3	0.3	6.741	A
1	Exit	1	1		128			128	130	0.0	0.0	0.000	A
			1	3	104	1065	0.097	104	100	0.1	0.1	3.804	А
_	Entry	1	2	1, 2, 4	999	1065	0.938	998	1002	3.3	3.5	12.436	В
2		2	1	(1, 2, 3, 4)	1119			1103	1103	13.9	16.1	46.123	E
	Exit	1	1		859			859	863	0.0	0.0	0.000	А
	Entry		1	4	99	783	0.126	99	104	0.1	0.1	5.203	A
3	Entry	1	2	2	96	783	0.123	96	98	0.1	0.2	5.373	A
	Exit	1	1		200			200	197	0.0	0.0	0.000	A
			1	1, 2	790	845	0.935	790	794	3.5	3.5	15.874	С
	Entry	1	2	3	97	845	0.115	96	96	0.1	0.1	4.895	A
4		2	1	(1, 2, 3, 4)	891			887	890	14.0	15.6	57.247	F
	Exit	1	1		1123			1123	1133	0.0	0.0	0.000	A