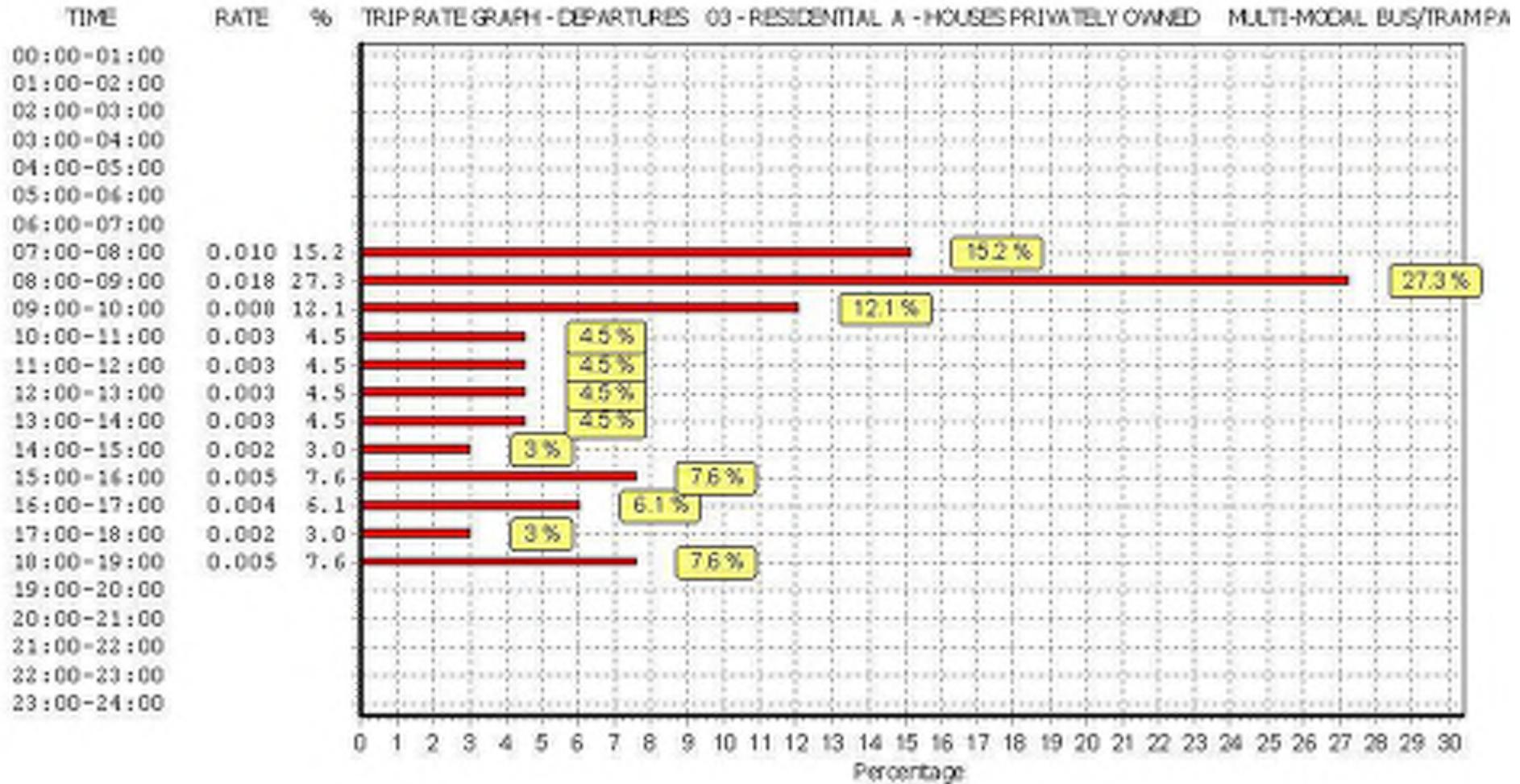
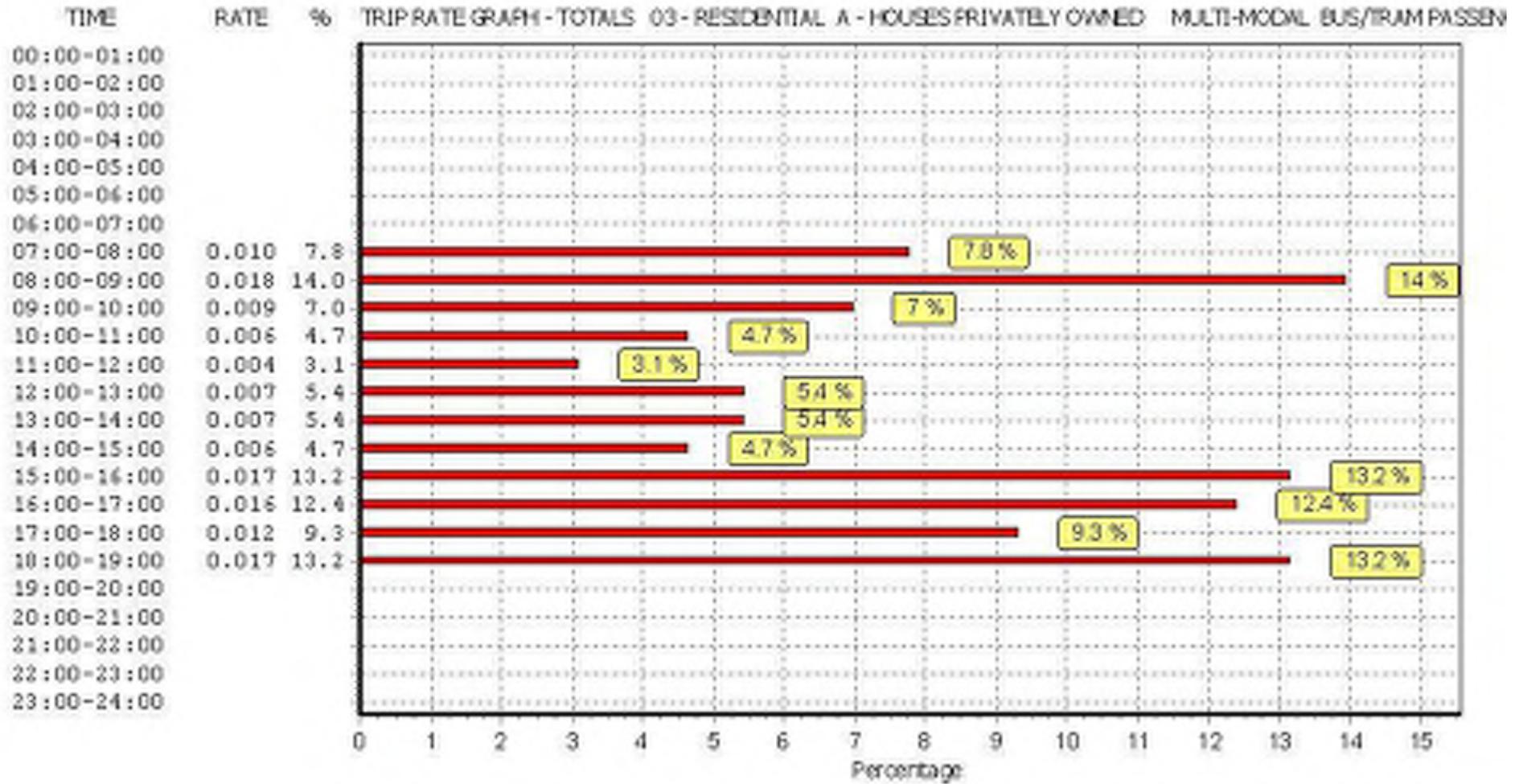


LDP-EBD-STR3B.8.2



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



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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL RAIL PASSENGERS

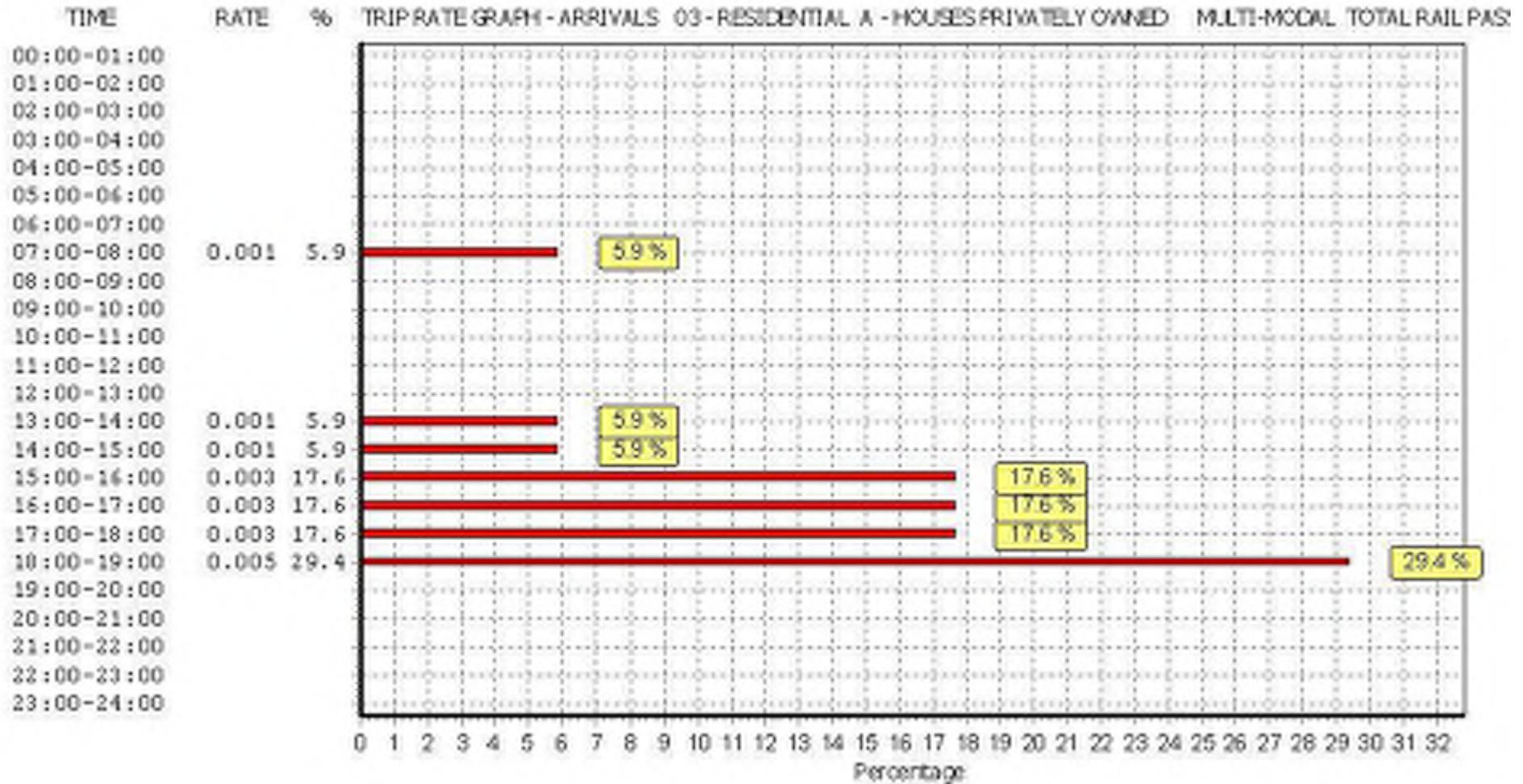
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

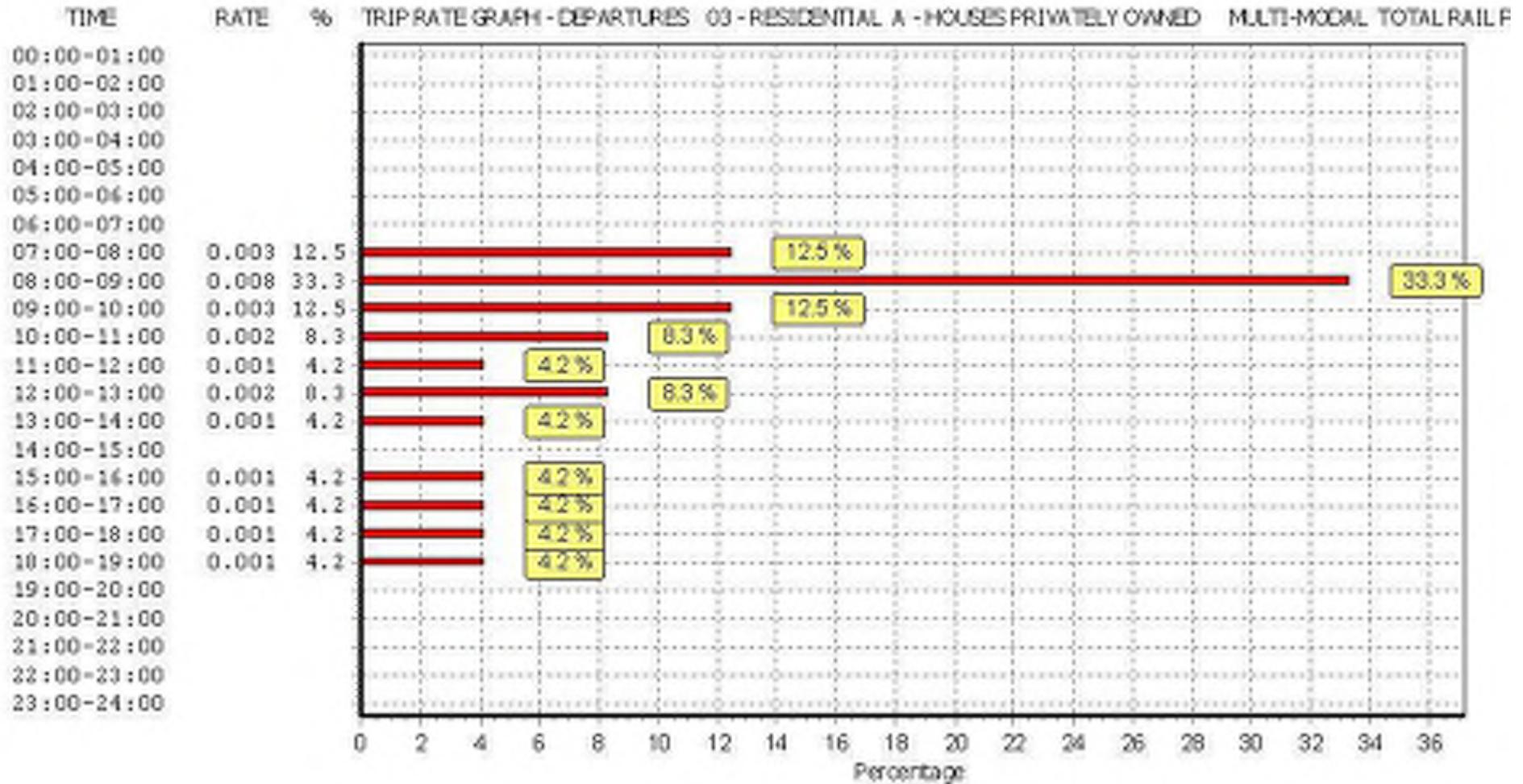
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	120	0.001	29	120	0.003	29	120	0.004
08:00 - 09:00	29	120	0.000	29	120	0.008	29	120	0.008
09:00 - 10:00	29	120	0.000	29	120	0.003	29	120	0.003
10:00 - 11:00	29	120	0.000	29	120	0.002	29	120	0.002
11:00 - 12:00	29	120	0.000	29	120	0.001	29	120	0.001
12:00 - 13:00	29	120	0.000	29	120	0.002	29	120	0.002
13:00 - 14:00	29	120	0.001	29	120	0.001	29	120	0.002
14:00 - 15:00	29	120	0.001	29	120	0.000	29	120	0.001
15:00 - 16:00	29	120	0.003	29	120	0.001	29	120	0.004
16:00 - 17:00	29	120	0.003	29	120	0.001	29	120	0.004
17:00 - 18:00	29	120	0.003	29	120	0.001	29	120	0.004
18:00 - 19:00	29	120	0.005	29	120	0.001	29	120	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.017			0.024			0.041

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

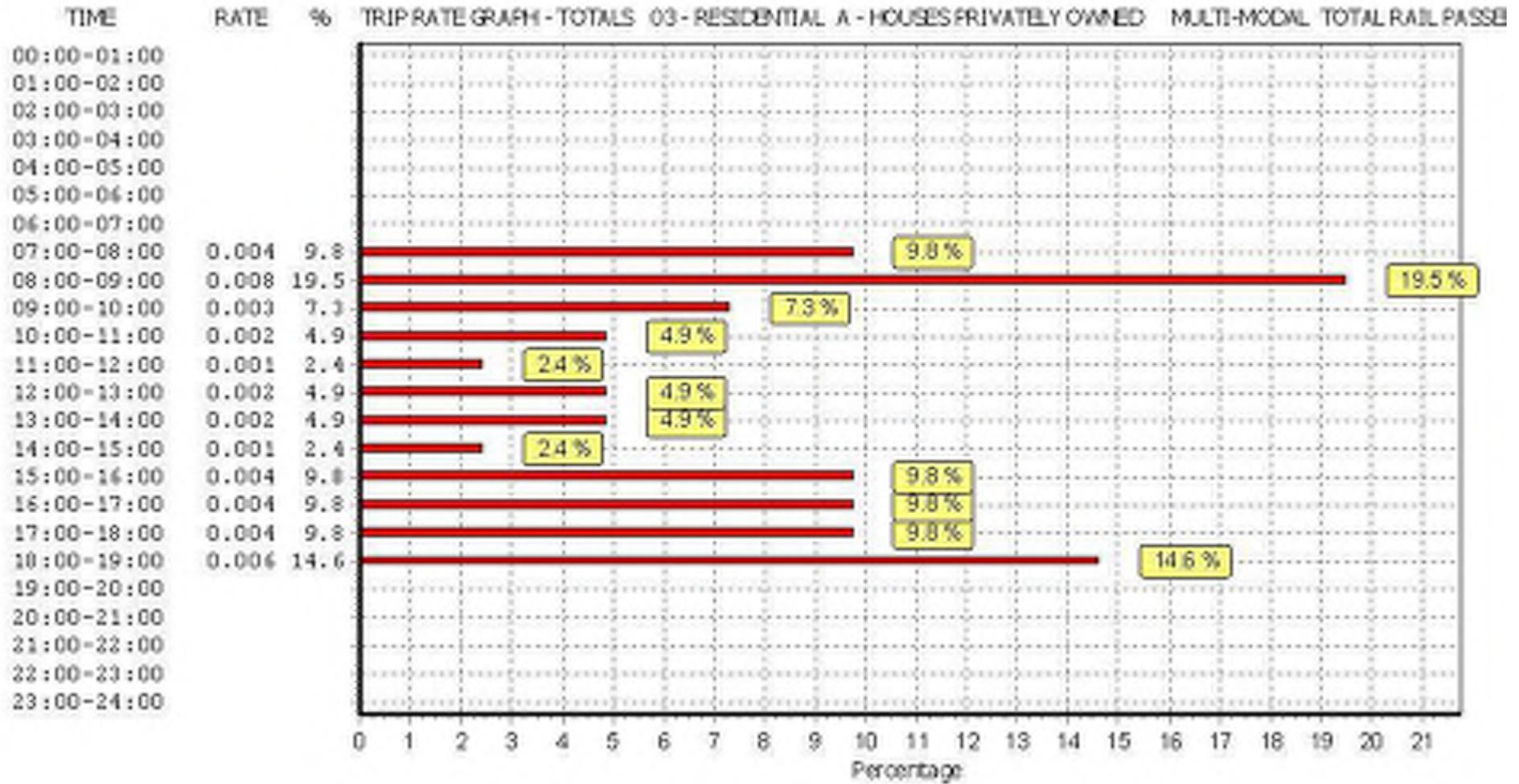
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



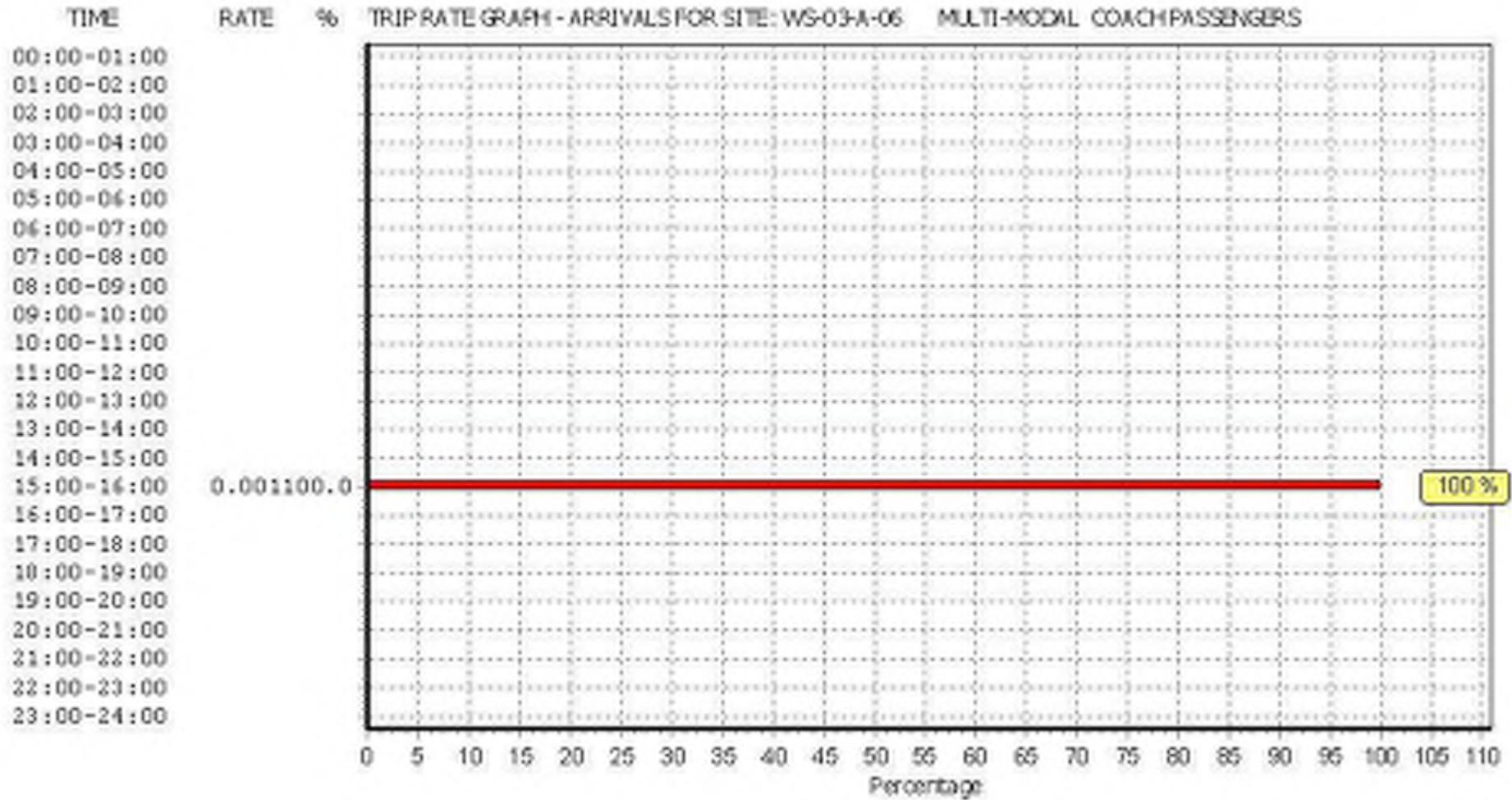
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL COACH PASSENGERS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

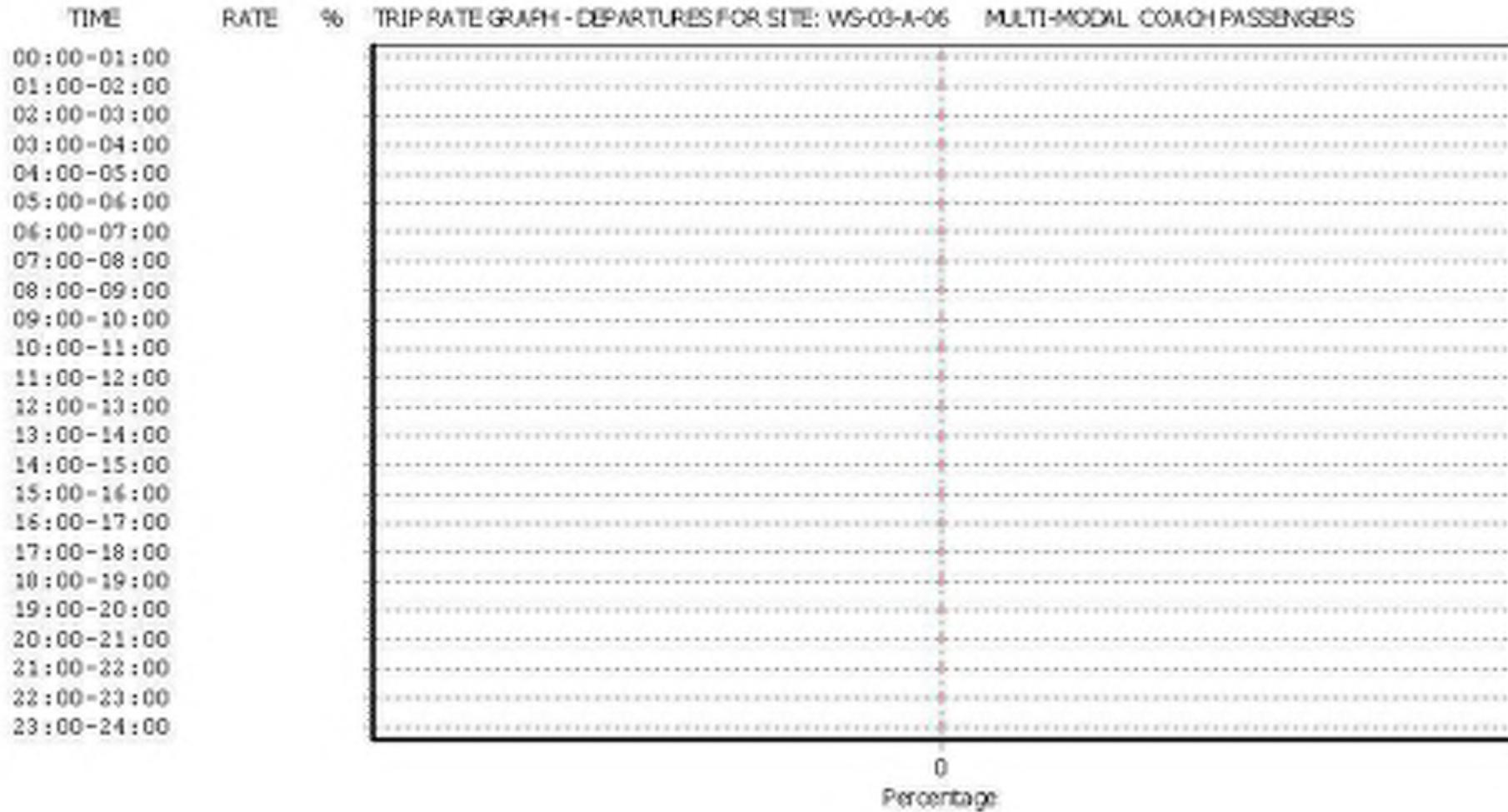
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	120	0.000	29	120	0.000	29	120	0.000
08:00 - 09:00	29	120	0.000	29	120	0.000	29	120	0.000
09:00 - 10:00	29	120	0.000	29	120	0.000	29	120	0.000
10:00 - 11:00	29	120	0.000	29	120	0.000	29	120	0.000
11:00 - 12:00	29	120	0.000	29	120	0.000	29	120	0.000
12:00 - 13:00	29	120	0.000	29	120	0.000	29	120	0.000
13:00 - 14:00	29	120	0.000	29	120	0.000	29	120	0.000
14:00 - 15:00	29	120	0.000	29	120	0.000	29	120	0.000
15:00 - 16:00	29	120	0.001	29	120	0.000	29	120	0.001
16:00 - 17:00	29	120	0.000	29	120	0.000	29	120	0.000
17:00 - 18:00	29	120	0.000	29	120	0.000	29	120	0.000
18:00 - 19:00	29	120	0.000	29	120	0.000	29	120	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.000			0.001

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

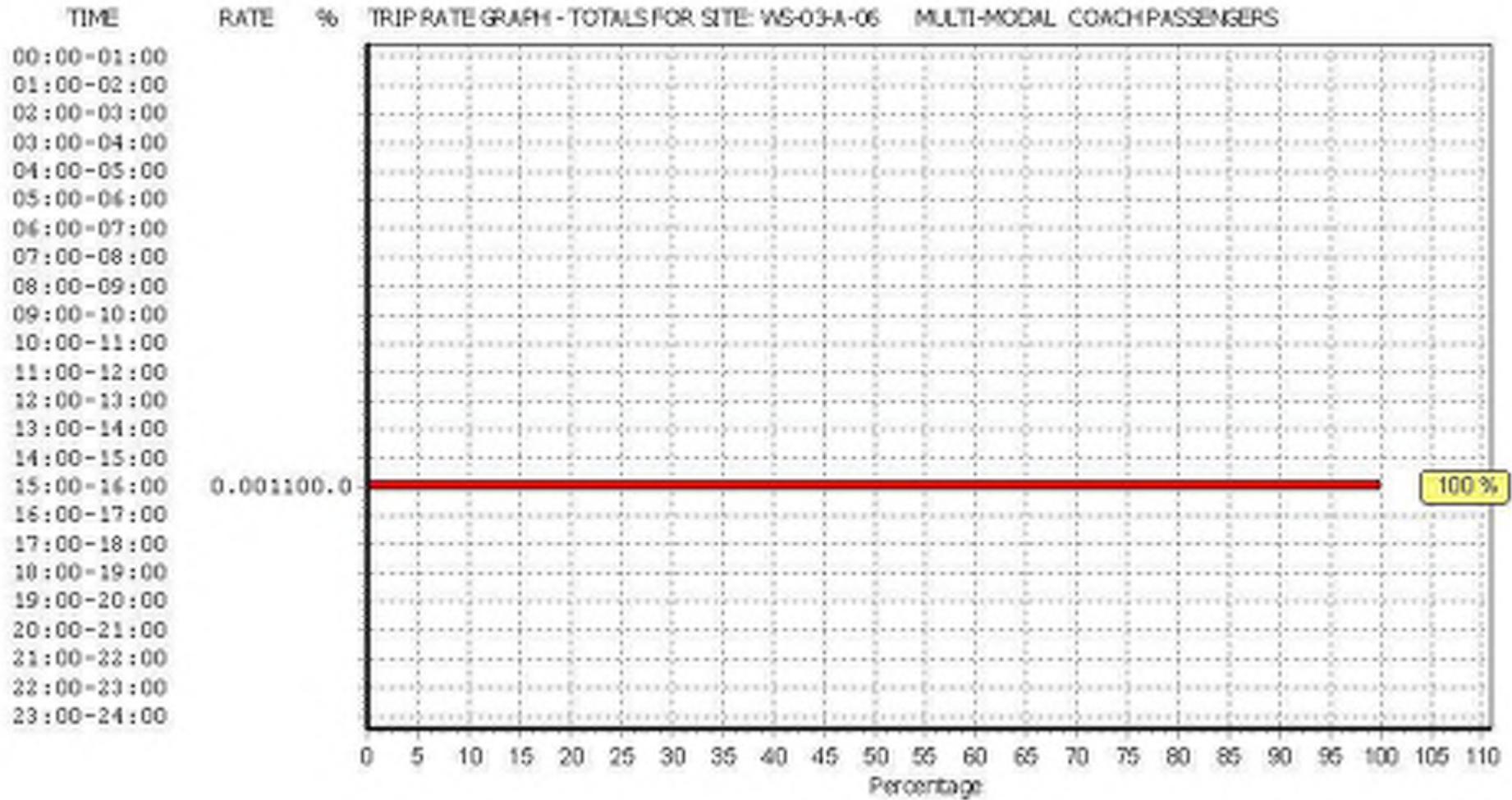
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS

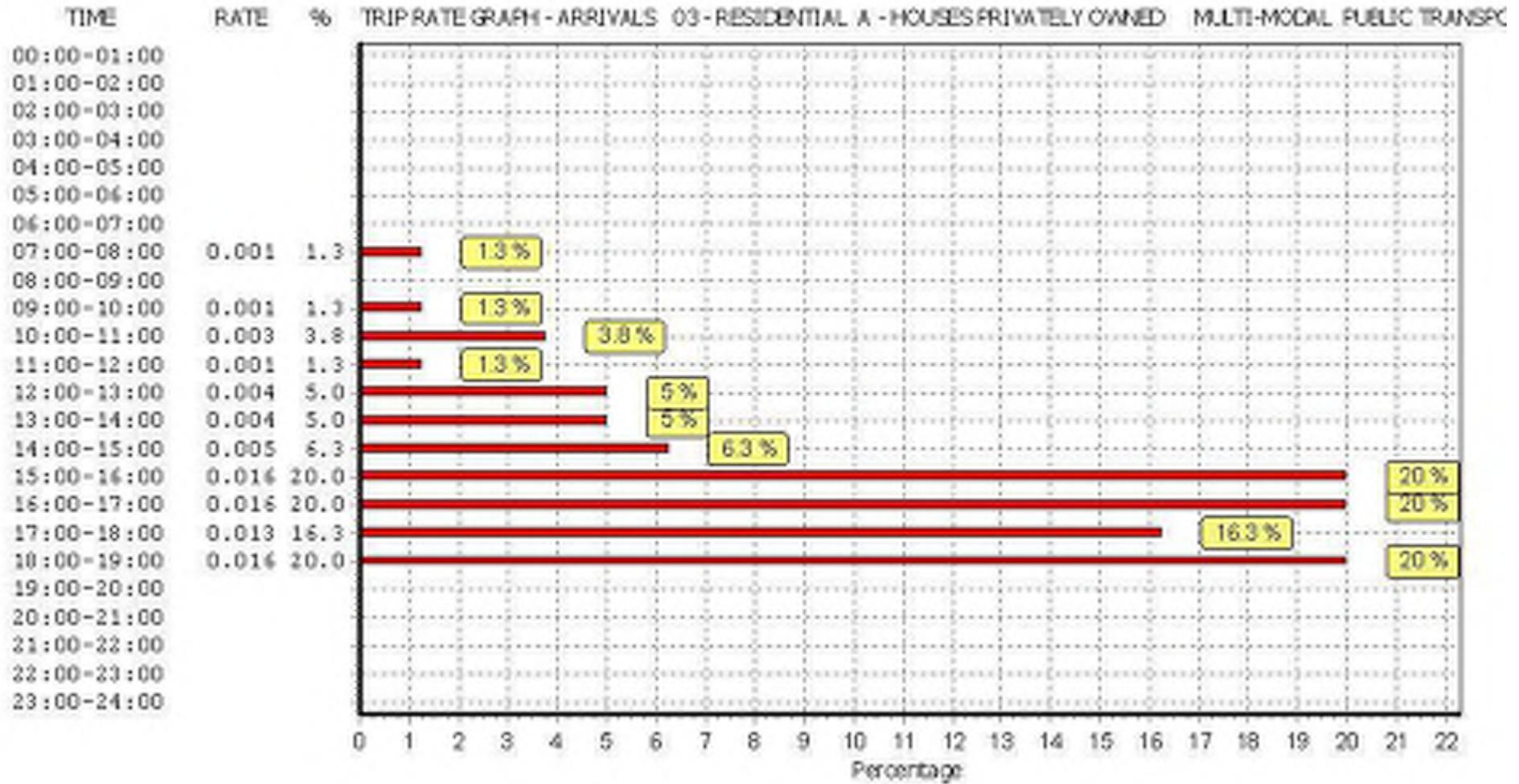
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

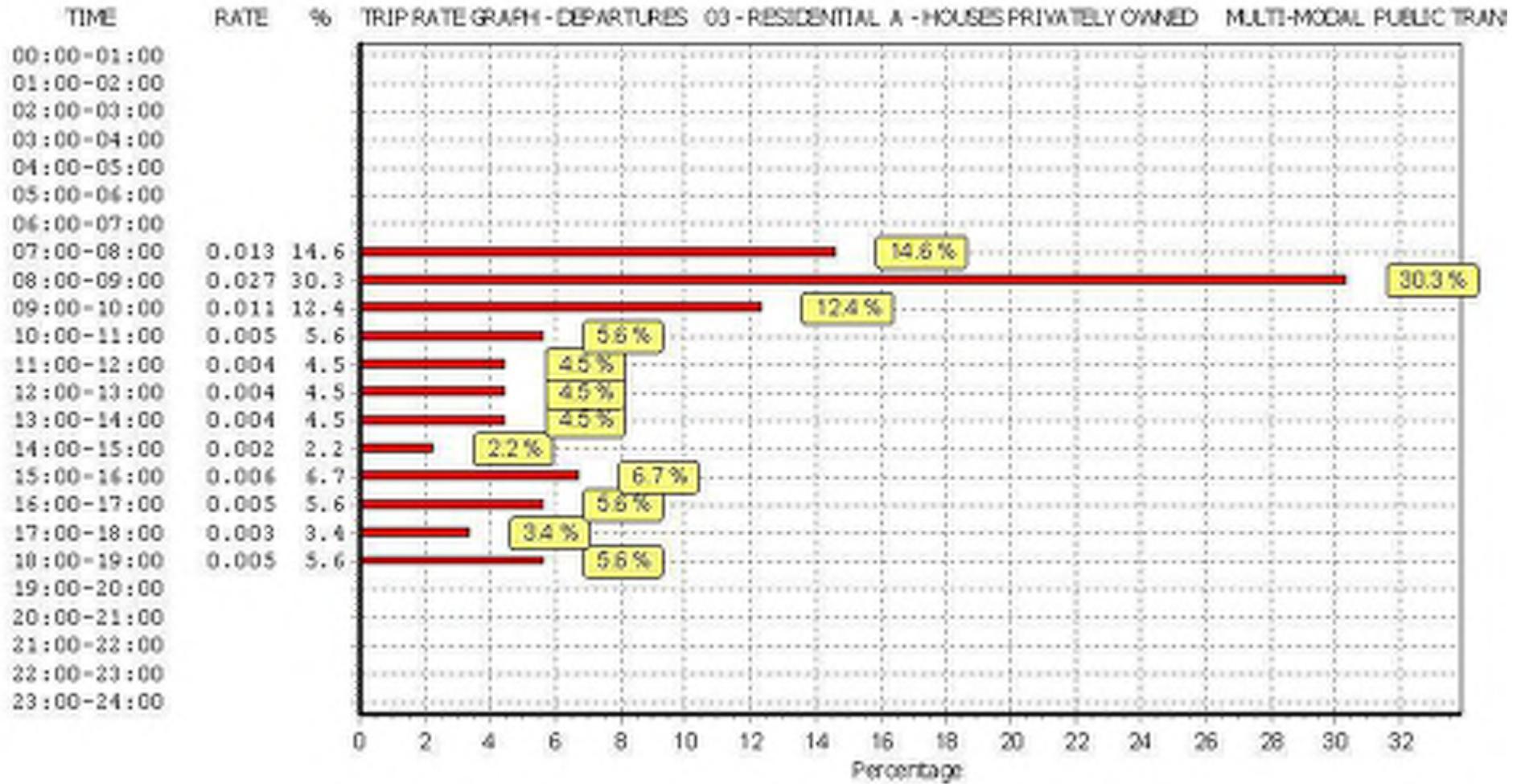
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	120	0.001	29	120	0.013	29	120	0.014
08:00 - 09:00	29	120	0.000	29	120	0.027	29	120	0.027
09:00 - 10:00	29	120	0.001	29	120	0.011	29	120	0.012
10:00 - 11:00	29	120	0.003	29	120	0.005	29	120	0.008
11:00 - 12:00	29	120	0.001	29	120	0.004	29	120	0.005
12:00 - 13:00	29	120	0.004	29	120	0.004	29	120	0.008
13:00 - 14:00	29	120	0.004	29	120	0.004	29	120	0.008
14:00 - 15:00	29	120	0.005	29	120	0.002	29	120	0.007
15:00 - 16:00	29	120	0.016	29	120	0.006	29	120	0.022
16:00 - 17:00	29	120	0.016	29	120	0.005	29	120	0.021
17:00 - 18:00	29	120	0.013	29	120	0.003	29	120	0.016
18:00 - 19:00	29	120	0.016	29	120	0.005	29	120	0.021
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.080			0.089			0.169

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

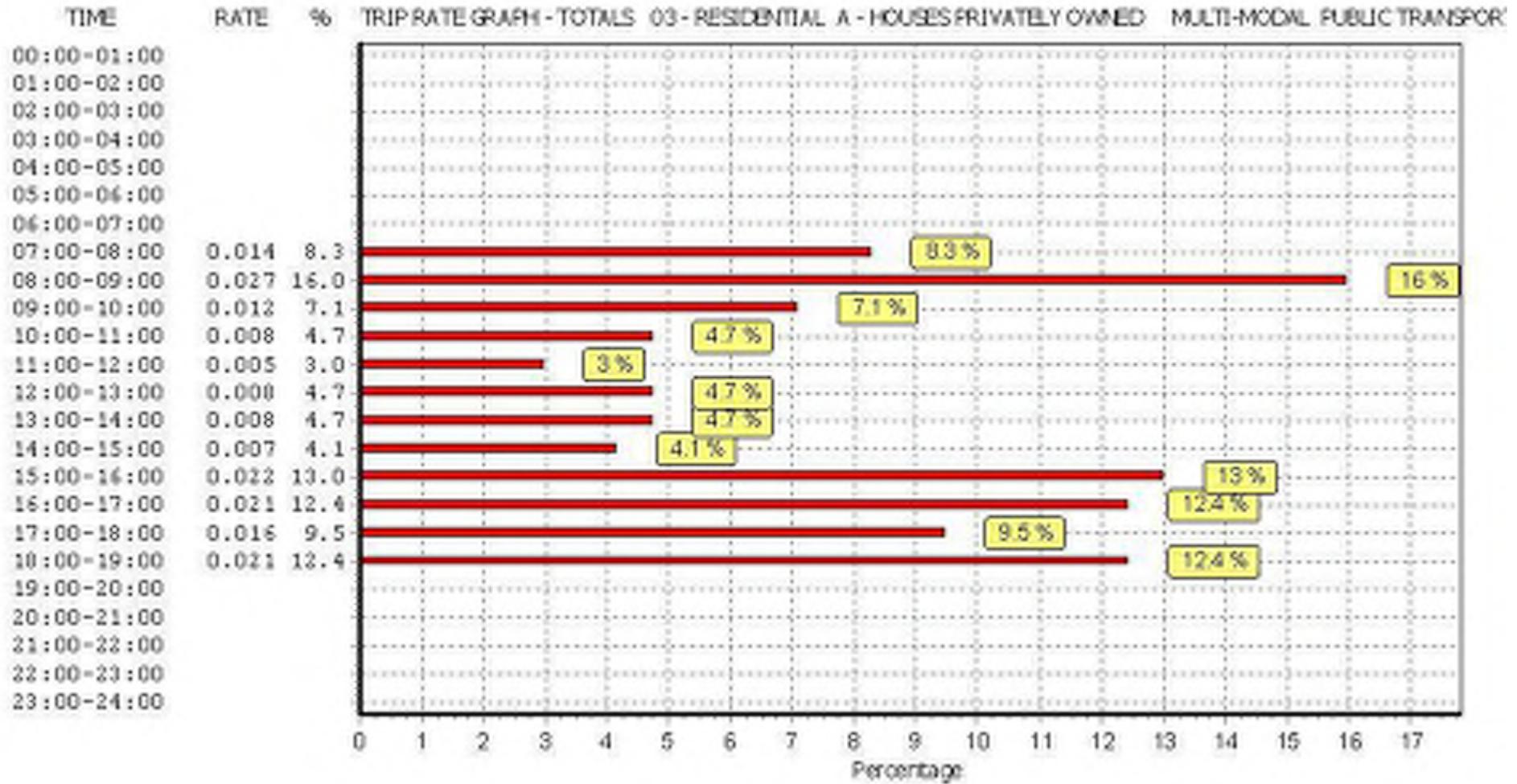
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

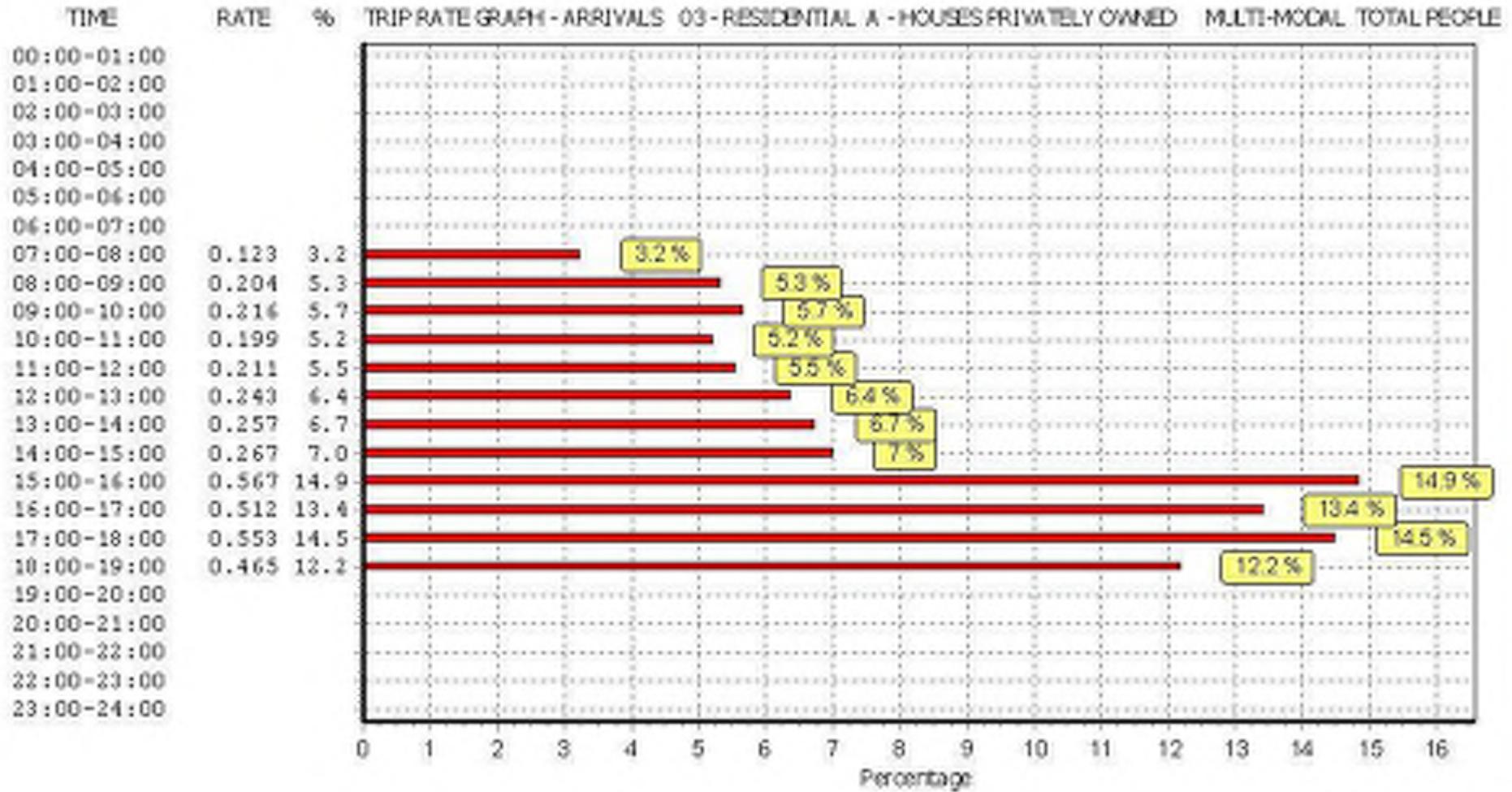
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

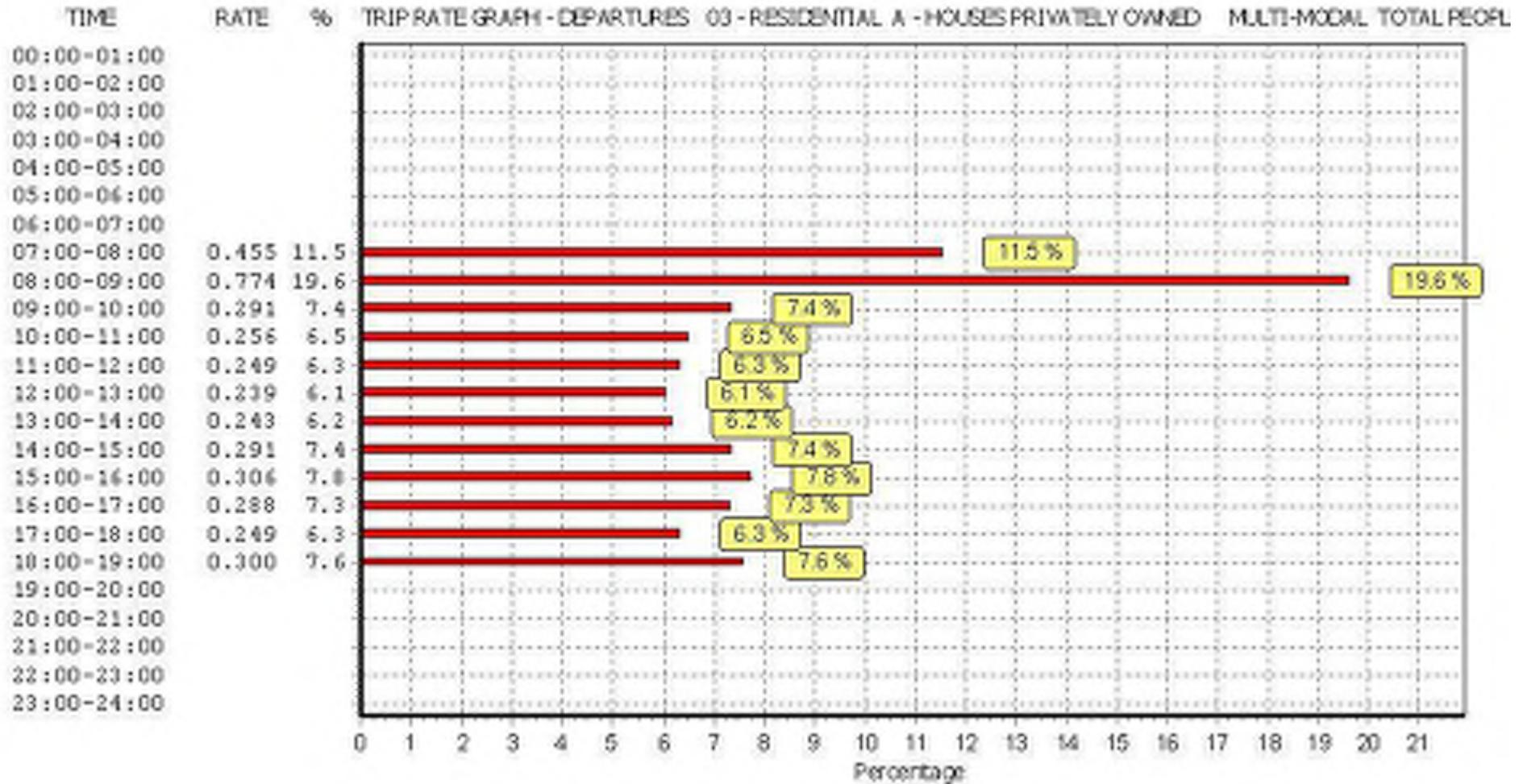
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	120	0.123	29	120	0.455	29	120	0.578
08:00 - 09:00	29	120	0.204	29	120	0.774	29	120	0.978
09:00 - 10:00	29	120	0.216	29	120	0.291	29	120	0.507
10:00 - 11:00	29	120	0.199	29	120	0.256	29	120	0.455
11:00 - 12:00	29	120	0.211	29	120	0.249	29	120	0.460
12:00 - 13:00	29	120	0.243	29	120	0.239	29	120	0.482
13:00 - 14:00	29	120	0.257	29	120	0.243	29	120	0.500
14:00 - 15:00	29	120	0.267	29	120	0.291	29	120	0.558
15:00 - 16:00	29	120	0.567	29	120	0.306	29	120	0.873
16:00 - 17:00	29	120	0.512	29	120	0.288	29	120	0.800
17:00 - 18:00	29	120	0.553	29	120	0.249	29	120	0.802
18:00 - 19:00	29	120	0.465	29	120	0.300	29	120	0.765
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.817			3.941			7.758

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

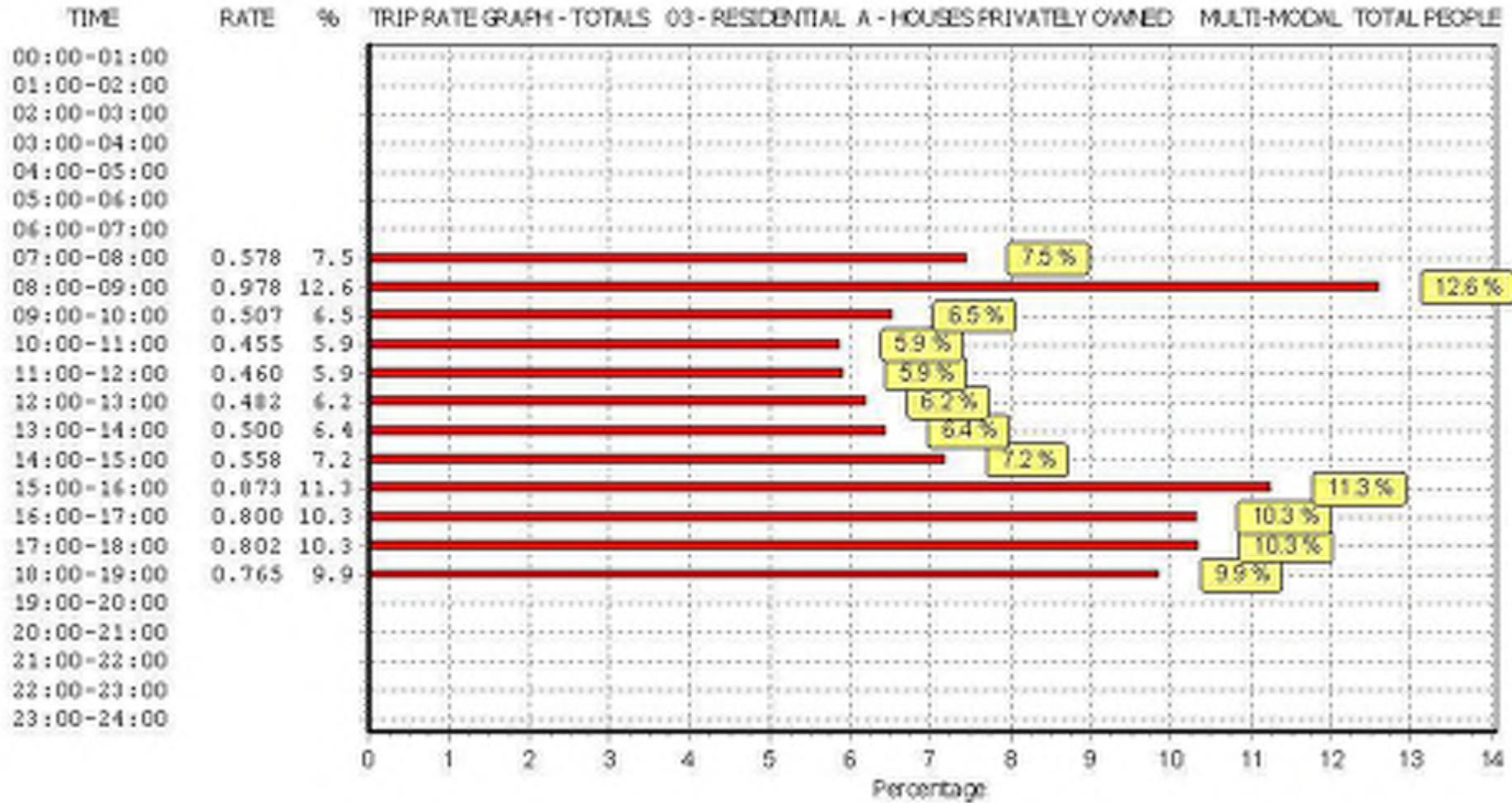
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



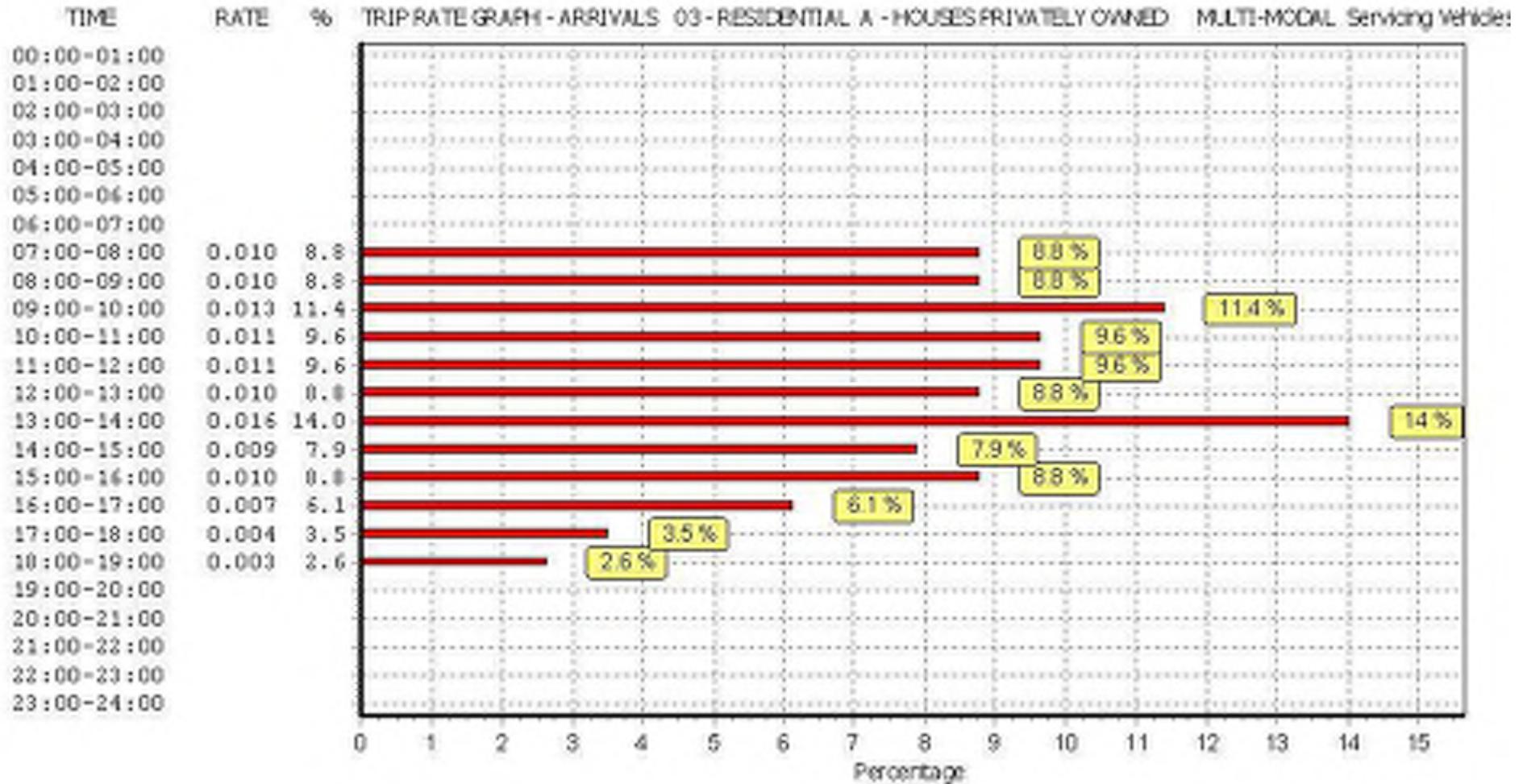
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL Servicing Vehicles
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

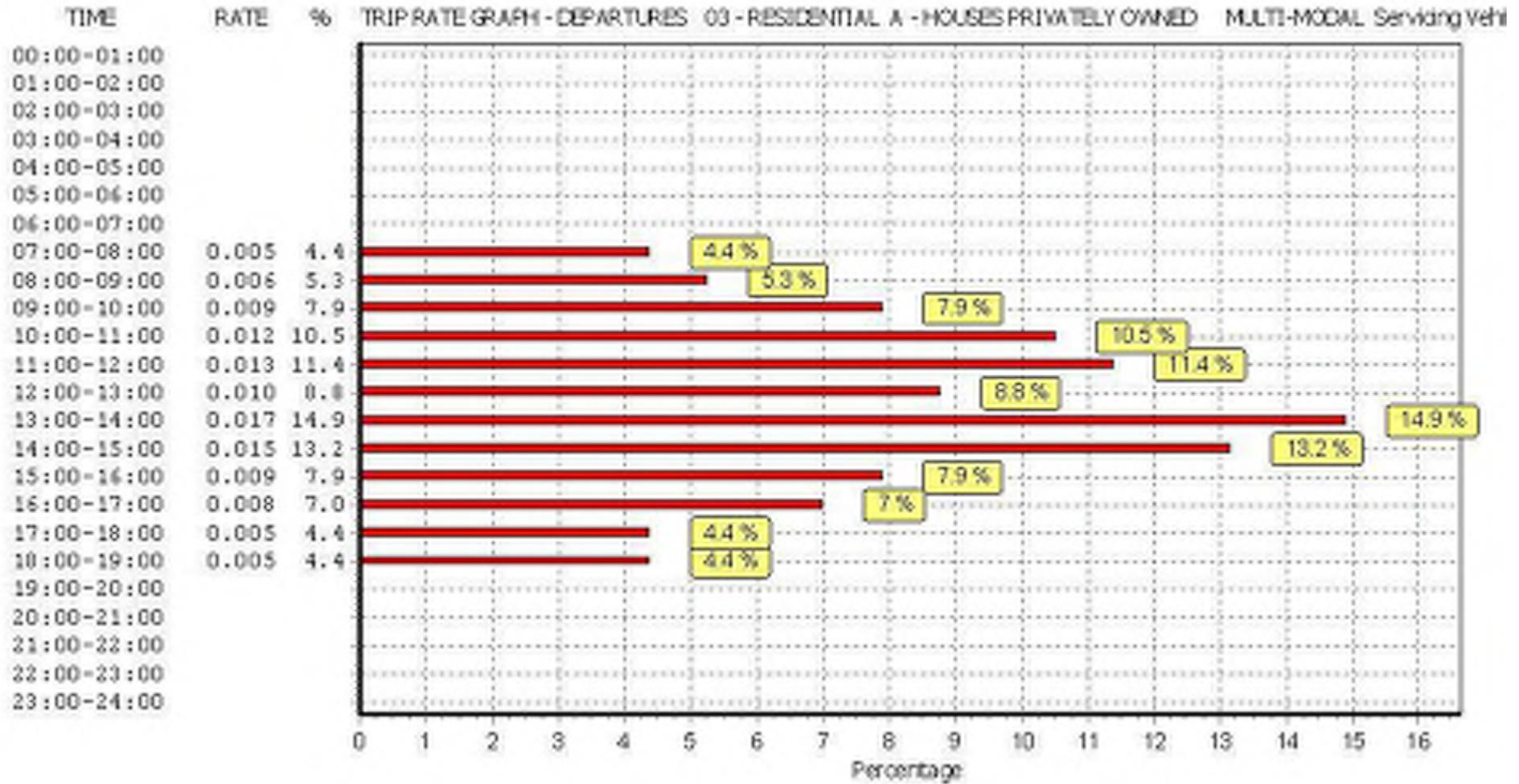
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	120	0.010	29	120	0.005	29	120	0.015
08:00 - 09:00	29	120	0.010	29	120	0.006	29	120	0.016
09:00 - 10:00	29	120	0.013	29	120	0.009	29	120	0.022
10:00 - 11:00	29	120	0.011	29	120	0.012	29	120	0.023
11:00 - 12:00	29	120	0.011	29	120	0.013	29	120	0.024
12:00 - 13:00	29	120	0.010	29	120	0.010	29	120	0.020
13:00 - 14:00	29	120	0.016	29	120	0.017	29	120	0.033
14:00 - 15:00	29	120	0.009	29	120	0.015	29	120	0.024
15:00 - 16:00	29	120	0.010	29	120	0.009	29	120	0.019
16:00 - 17:00	29	120	0.007	29	120	0.008	29	120	0.015
17:00 - 18:00	29	120	0.004	29	120	0.005	29	120	0.009
18:00 - 19:00	29	120	0.003	29	120	0.005	29	120	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.114			0.114			0.228

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

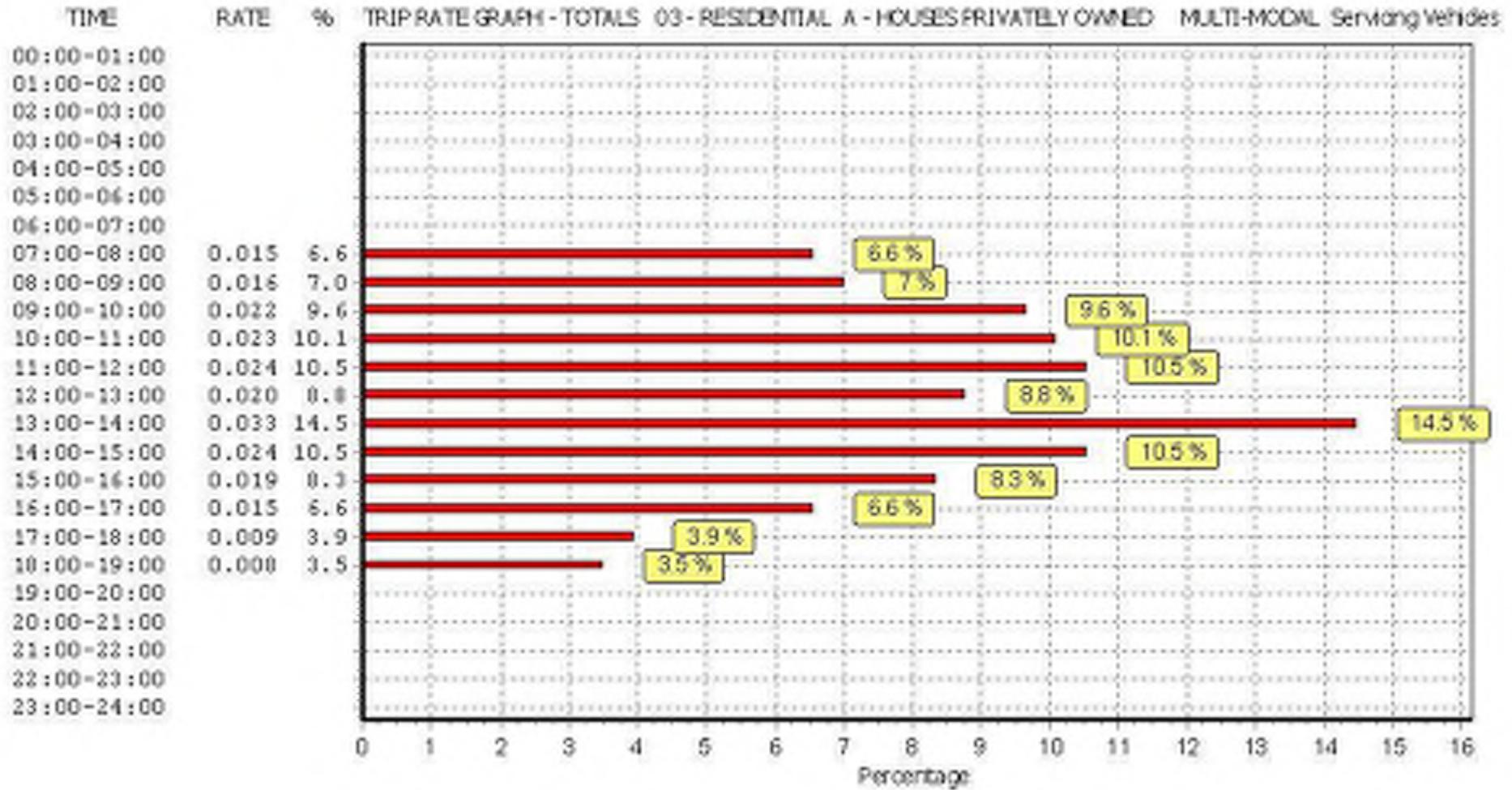
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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



Appendix D

TRICS B1 TRIP RATES

Calculation Reference: AUDIT-705103-190301-0359

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : B - BUSINESS PARK
 MULTI-MODAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
10	WALES	
	CF CARDIFF	3 days
11	SCOTLAND	
	FA FALKIRK	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1500 to 142687 (units: sqm)
 Range Selected by User: 975 to 142687 (units: sqm)

Parking Spaces Range: Selected: 7 to 4167 Actual: 7 to 4167

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 13/03/18

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Thursday	1 days
Friday	3 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	8
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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	3
Development Zone	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.

Secondary Filtering selection:

Use Class:

B1 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:

5,001 to 10,000 2 days
10,001 to 15,000 3 days
15,001 to 20,000 3 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
100,001 to 125,000 1 days
125,001 to 250,000 3 days
250,001 to 500,000 3 days

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

Car ownership within 5 miles:

0.6 to 1.0 5 days
1.1 to 1.5 3 days

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

Travel Plan:

Yes 1 days
No 7 days

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

PTAL Rating:

No PTAL Present 8 days

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

LIST OF SITES relevant to selection parameters

1	CA-02-B-03 MILTON ROAD CAMBRIDGE	SCIENCE PARK		CAMBRI D G E S H I R E
	Edge of Town No Sub Category Total Gross floor area:		142687 sqm	
	<i>Survey date: FRIDAY</i>		<i>06/10/17</i>	<i>Survey Type: MANUAL</i>
2	CF-02-B-04 RHYMNEY RIVER BRIDGE RD CARDIFF	BUSINESS PARK		CARDIFF
	Edge of Town Development Zone Total Gross floor area:		5300 sqm	
	<i>Survey date: FRIDAY</i>		<i>05/05/17</i>	<i>Survey Type: MANUAL</i>
3	CF-02-B-06 MALHOUSE AVENUE CARDIFF PONTPRENNAU	BUSINESS PARK		CARDIFF
	Edge of Town No Sub Category Total Gross floor area:		1642 sqm	
	<i>Survey date: MONDAY</i>		<i>12/03/18</i>	<i>Survey Type: MANUAL</i>
4	CF-02-B-07 MALHOUSE AVENUE CARDIFF PONTPRENNAU	BUSINESS PARK		CARDIFF
	Edge of Town Commercial Zone Total Gross floor area:		15930 sqm	
	<i>Survey date: TUESDAY</i>		<i>13/03/18</i>	<i>Survey Type: MANUAL</i>
5	DV-02-B-01 MANATON CLOSE EXETER MATFORD BUSINESS PARK	BUSINESS PARK		DEVON
	Edge of Town Commercial Zone Total Gross floor area:		1500 sqm	
	<i>Survey date: WEDNESDAY</i>		<i>05/07/17</i>	<i>Survey Type: MANUAL</i>
6	FA-02-B-02 CALLENDAR BOULEVARD FALKIRK CALLENDAR PARK	BUSINESS PARK		FALKIRK
	Edge of Town Commercial Zone Total Gross floor area:		16000 sqm	
	<i>Survey date: FRIDAY</i>		<i>31/05/13</i>	<i>Survey Type: MANUAL</i>
7	LN-02-B-02 CARDINAL CLOSE LINCOLN	BUSINESS PARK		LINCOLNSHIRE
	Edge of Town Industrial Zone Total Gross floor area:		5000 sqm	
	<i>Survey date: THURSDAY</i>		<i>25/06/15</i>	<i>Survey Type: MANUAL</i>
8	ST-02-B-04 STONE ROAD STAFFORD	BUSINESS PARK		STAFFORDSHIRE
	Edge of Town Industrial Zone Total Gross floor area:		20760 sqm	
	<i>Survey date: WEDNESDAY</i>		<i>22/11/17</i>	<i>Survey Type: MANUAL</i>

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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL 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	8	26102	0.188	8	26102	0.031	8	26102	0.219
07:30 - 08:00	8	26102	0.386	8	26102	0.050	8	26102	0.436
08:00 - 08:30	8	26102	0.531	8	26102	0.068	8	26102	0.599
08:30 - 09:00	8	26102	0.458	8	26102	0.057	8	26102	0.515
09:00 - 09:30	8	26102	0.243	8	26102	0.057	8	26102	0.300
09:30 - 10:00	8	26102	0.086	8	26102	0.056	8	26102	0.142
10:00 - 10:30	8	26102	0.069	8	26102	0.049	8	26102	0.118
10:30 - 11:00	8	26102	0.052	8	26102	0.041	8	26102	0.093
11:00 - 11:30	8	26102	0.063	8	26102	0.058	8	26102	0.121
11:30 - 12:00	8	26102	0.062	8	26102	0.056	8	26102	0.118
12:00 - 12:30	8	26102	0.061	8	26102	0.115	8	26102	0.176
12:30 - 13:00	8	26102	0.073	8	26102	0.095	8	26102	0.168
13:00 - 13:30	8	26102	0.099	8	26102	0.061	8	26102	0.160
13:30 - 14:00	8	26102	0.076	8	26102	0.055	8	26102	0.131
14:00 - 14:30	8	26102	0.058	8	26102	0.068	8	26102	0.126
14:30 - 15:00	8	26102	0.044	8	26102	0.072	8	26102	0.116
15:00 - 15:30	8	26102	0.046	8	26102	0.105	8	26102	0.151
15:30 - 16:00	8	26102	0.045	8	26102	0.113	8	26102	0.158
16:00 - 16:30	8	26102	0.043	8	26102	0.177	8	26102	0.220
16:30 - 17:00	8	26102	0.036	8	26102	0.207	8	26102	0.243
17:00 - 17:30	8	26102	0.031	8	26102	0.346	8	26102	0.377
17:30 - 18:00	8	26102	0.024	8	26102	0.316	8	26102	0.340
18:00 - 18:30	8	26102	0.017	8	26102	0.283	8	26102	0.300
18:30 - 19:00	8	26102	0.016	8	26102	0.244	8	26102	0.260
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:			2.807			2.780			5.587

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.*

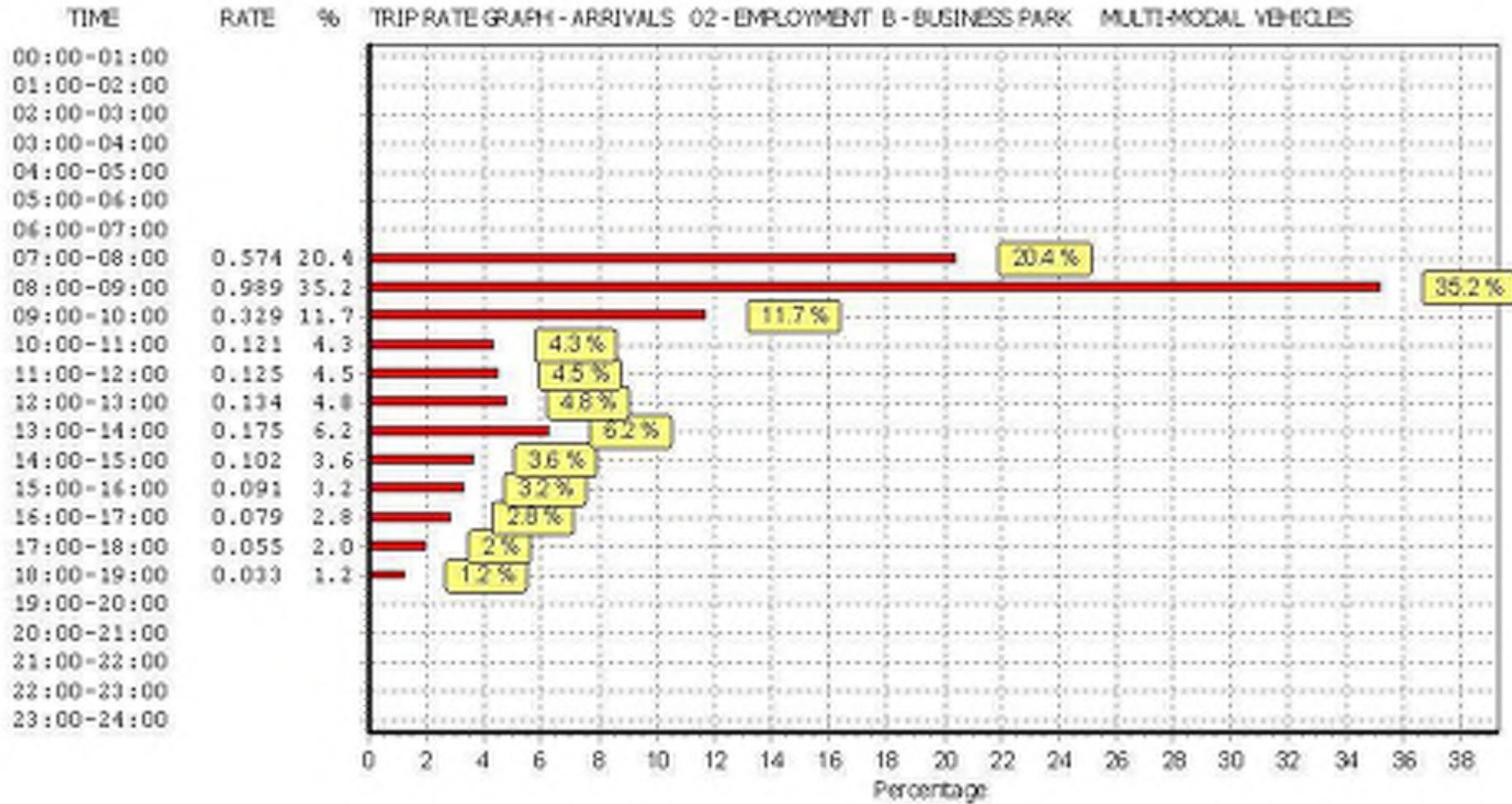
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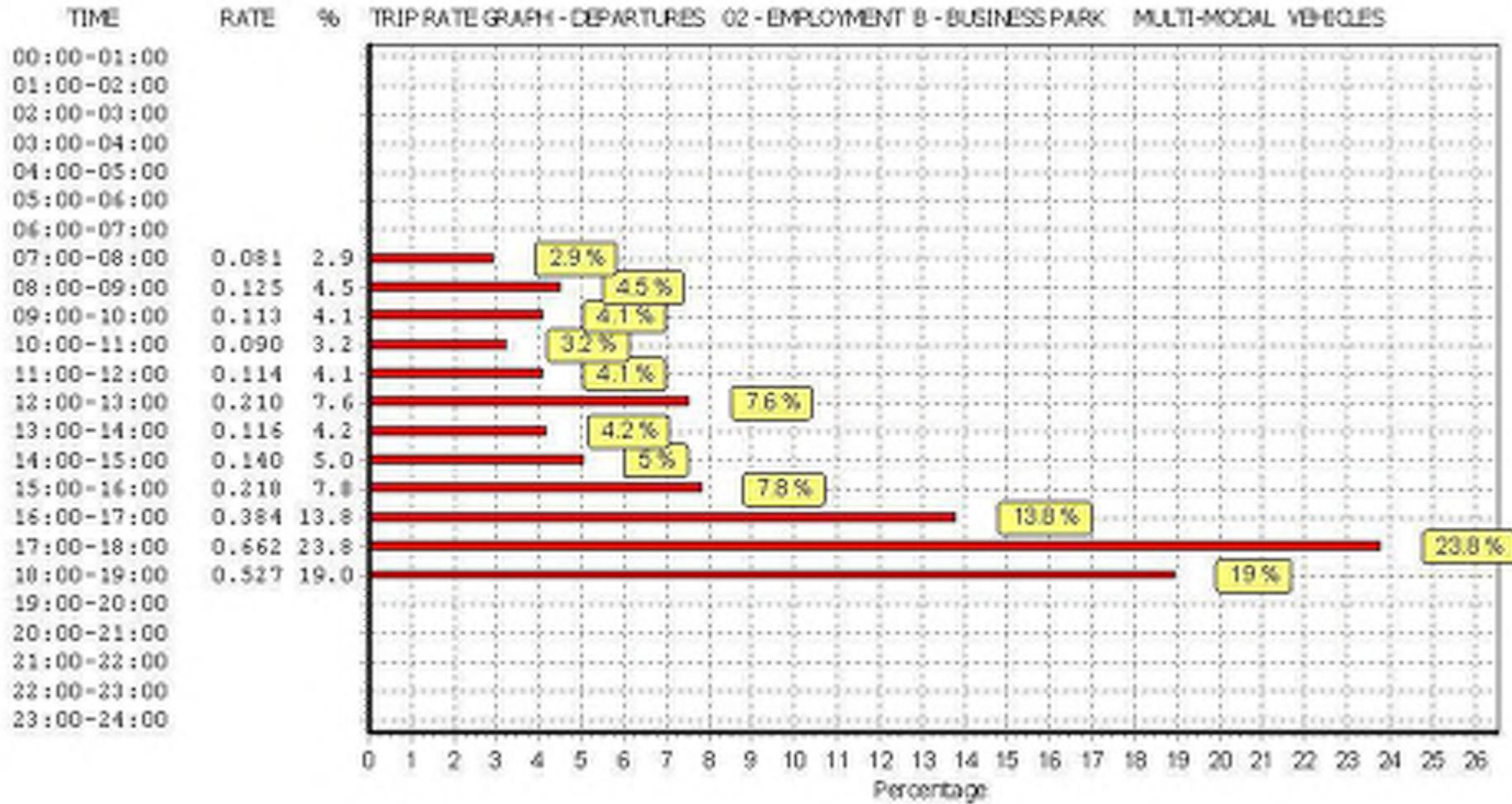
Parameter summary

Trip rate parameter range selected:	1500 - 142687 (units: sqm)
Survey date date range:	01/01/10 - 13/03/18
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

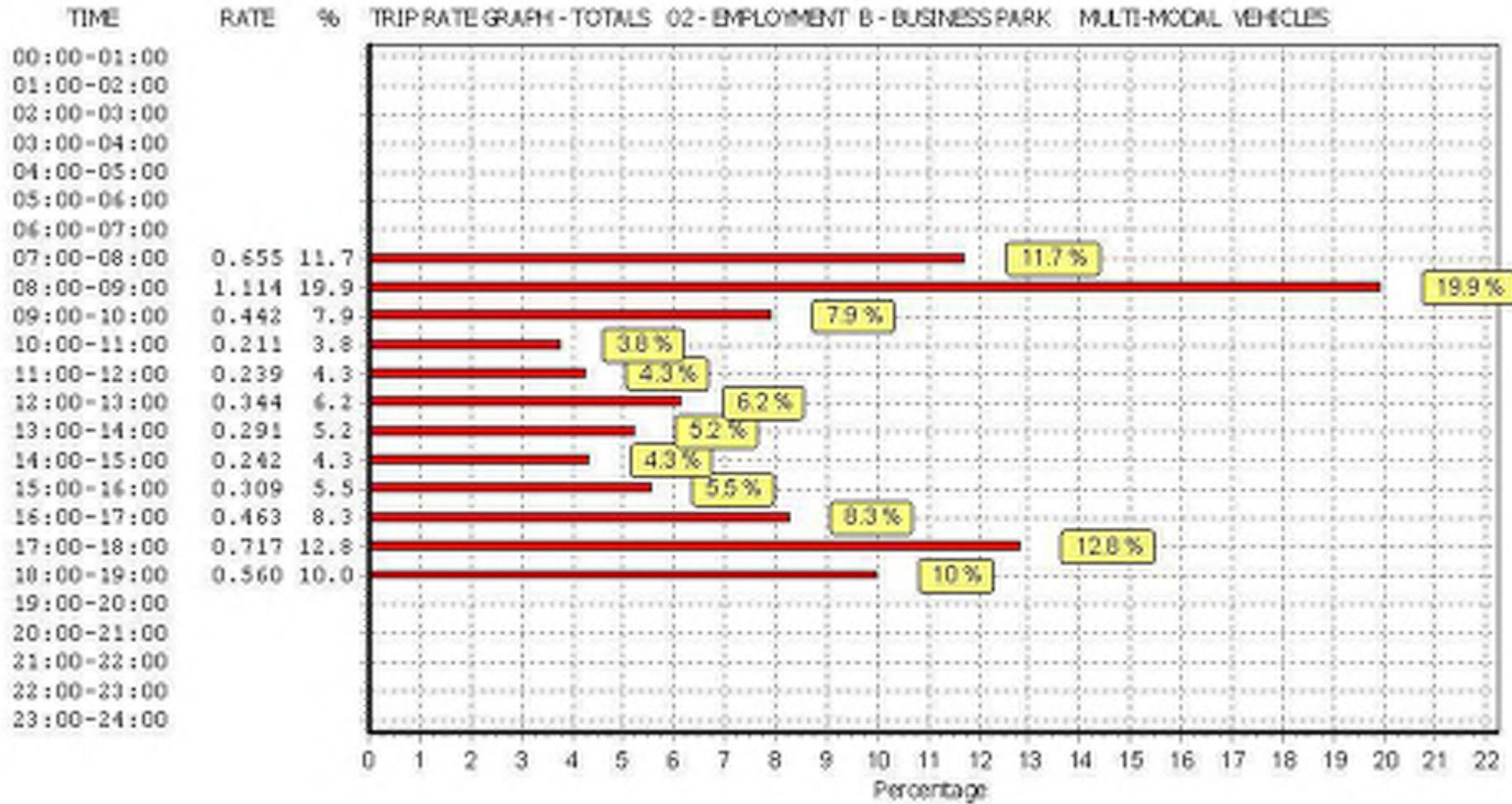
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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



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



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TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL TAXIS

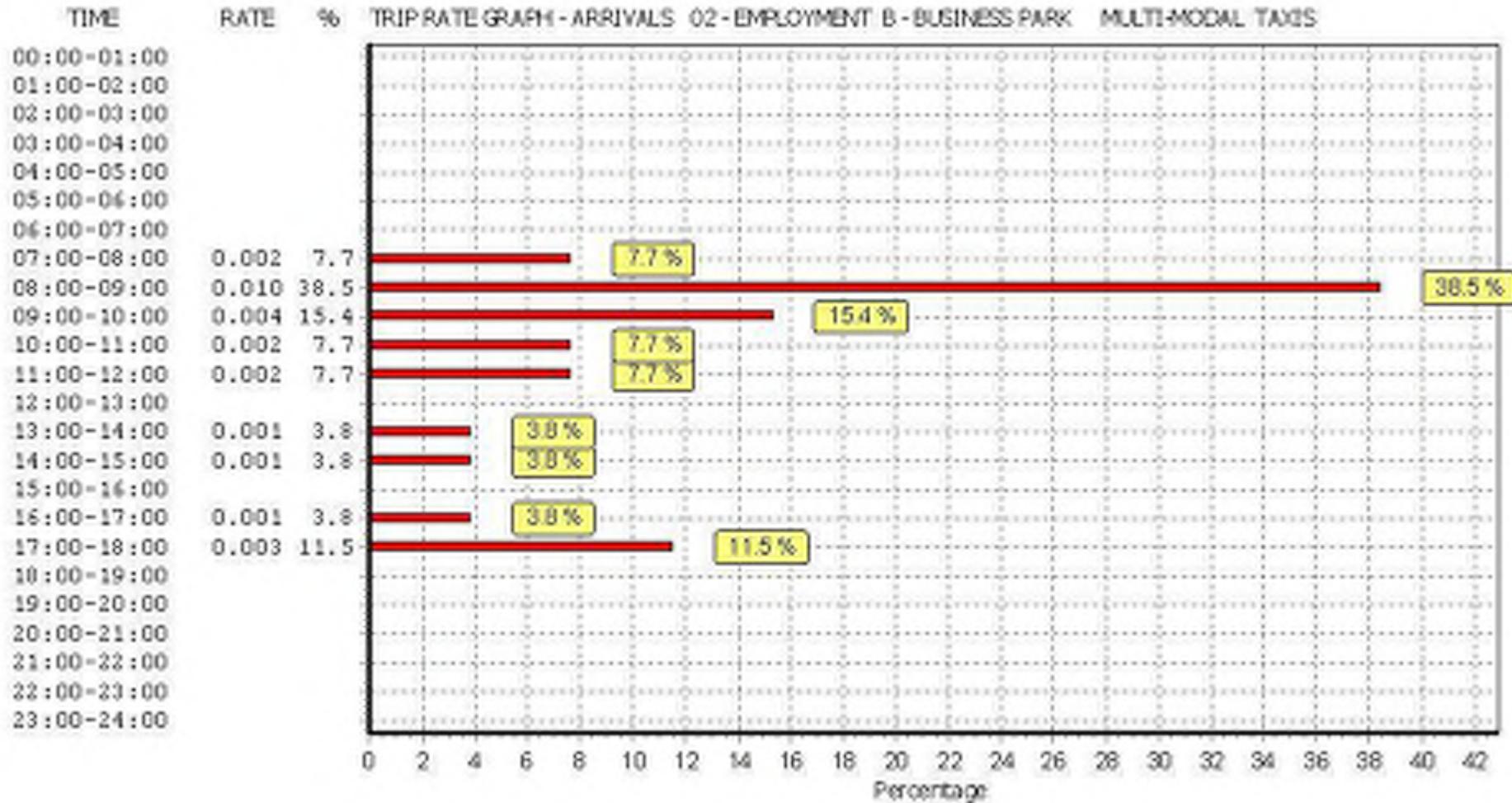
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

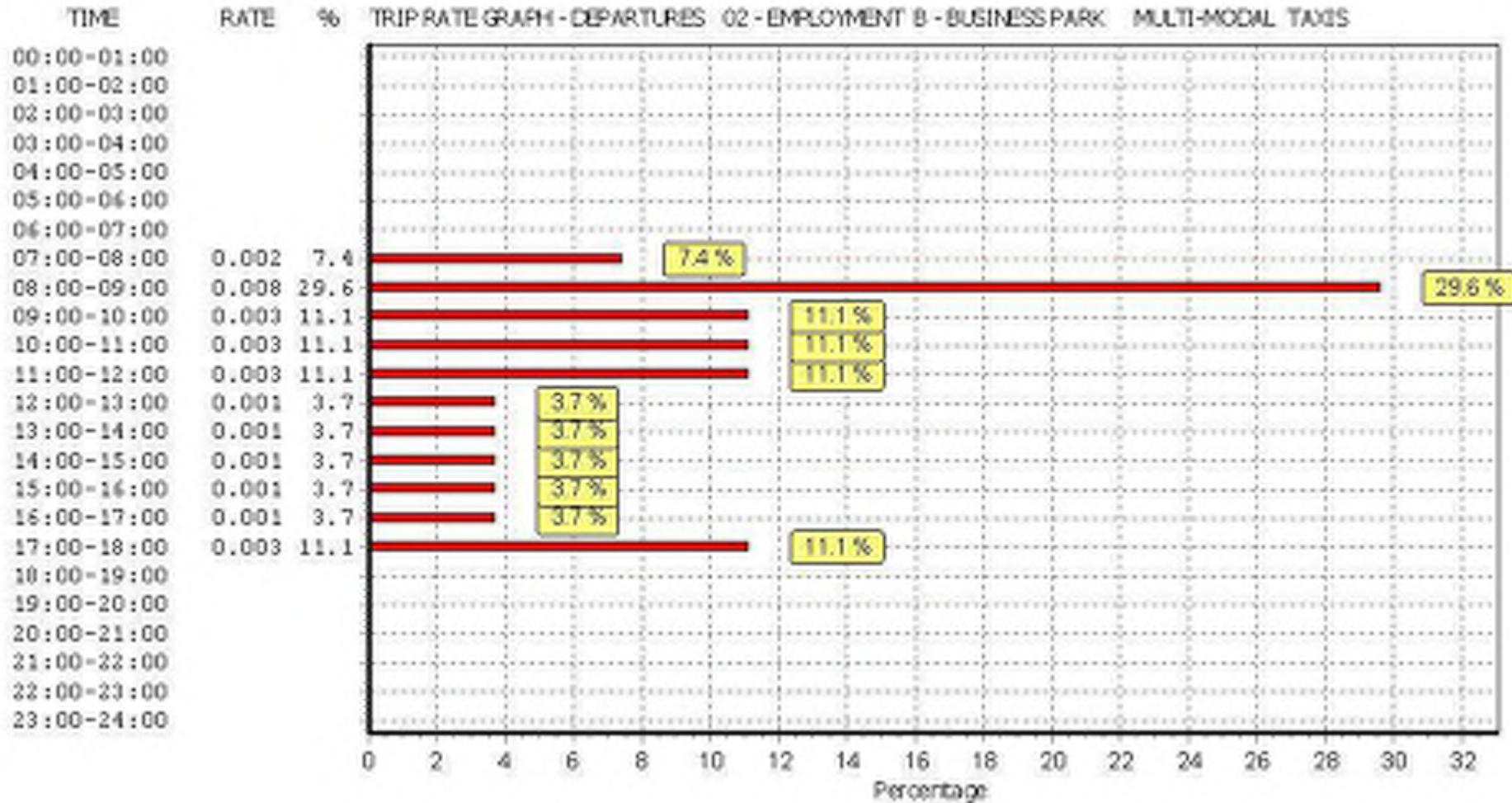
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.000	8	26102	0.000	8	26102	0.000
07:30 - 08:00	8	26102	0.002	8	26102	0.002	8	26102	0.004
08:00 - 08:30	8	26102	0.004	8	26102	0.003	8	26102	0.007
08:30 - 09:00	8	26102	0.006	8	26102	0.005	8	26102	0.011
09:00 - 09:30	8	26102	0.002	8	26102	0.002	8	26102	0.004
09:30 - 10:00	8	26102	0.002	8	26102	0.001	8	26102	0.003
10:00 - 10:30	8	26102	0.000	8	26102	0.002	8	26102	0.002
10:30 - 11:00	8	26102	0.002	8	26102	0.001	8	26102	0.003
11:00 - 11:30	8	26102	0.001	8	26102	0.001	8	26102	0.002
11:30 - 12:00	8	26102	0.001	8	26102	0.002	8	26102	0.003
12:00 - 12:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:30 - 13:00	8	26102	0.000	8	26102	0.001	8	26102	0.001
13:00 - 13:30	8	26102	0.001	8	26102	0.001	8	26102	0.002
13:30 - 14:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
14:00 - 14:30	8	26102	0.001	8	26102	0.001	8	26102	0.002
14:30 - 15:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
15:00 - 15:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
15:30 - 16:00	8	26102	0.000	8	26102	0.001	8	26102	0.001
16:00 - 16:30	8	26102	0.001	8	26102	0.001	8	26102	0.002
16:30 - 17:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
17:00 - 17:30	8	26102	0.002	8	26102	0.002	8	26102	0.004
17:30 - 18:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
18:00 - 18:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
18:30 - 19:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
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:			0.026			0.027			0.053

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

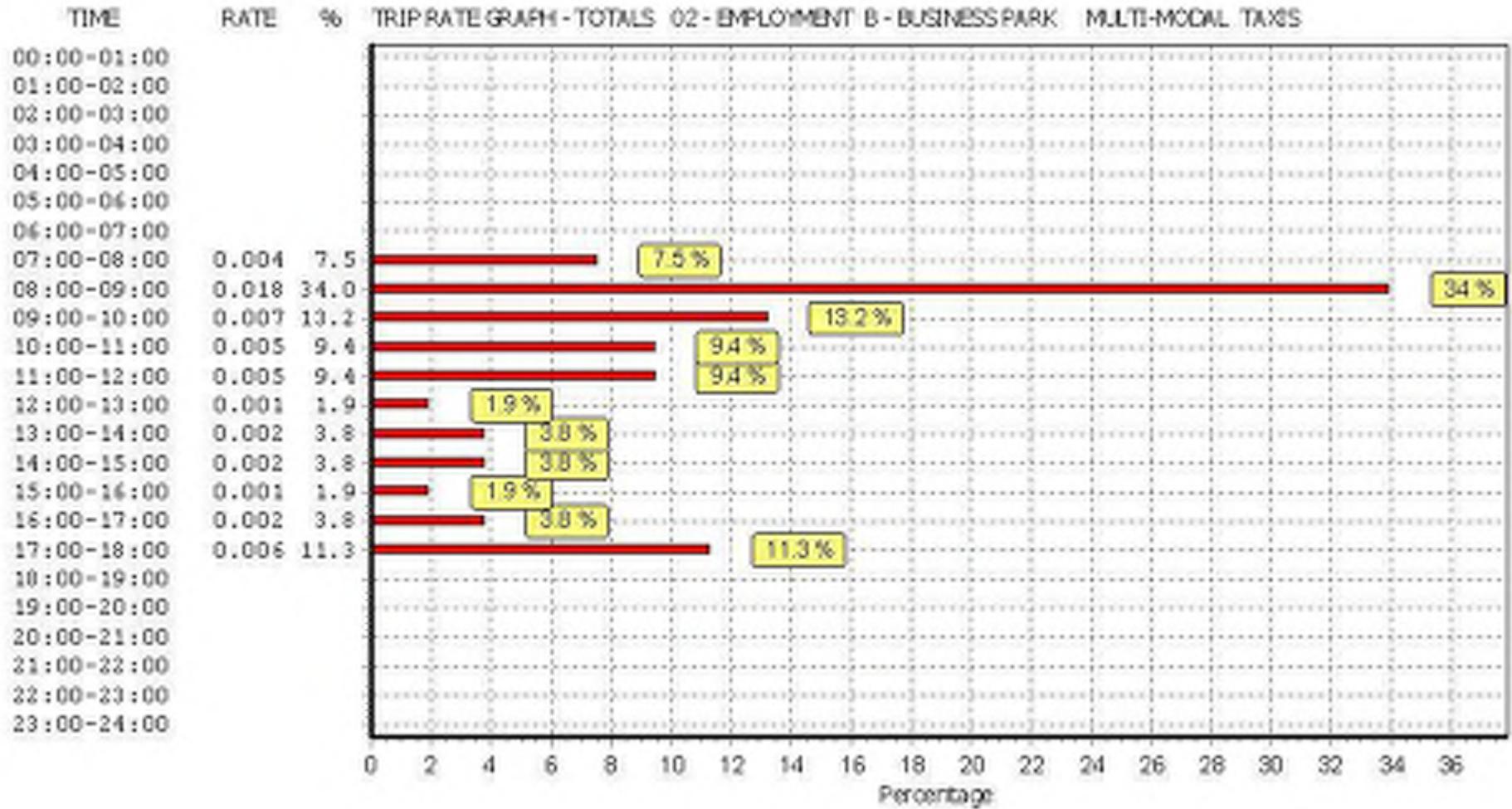
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL OGVS

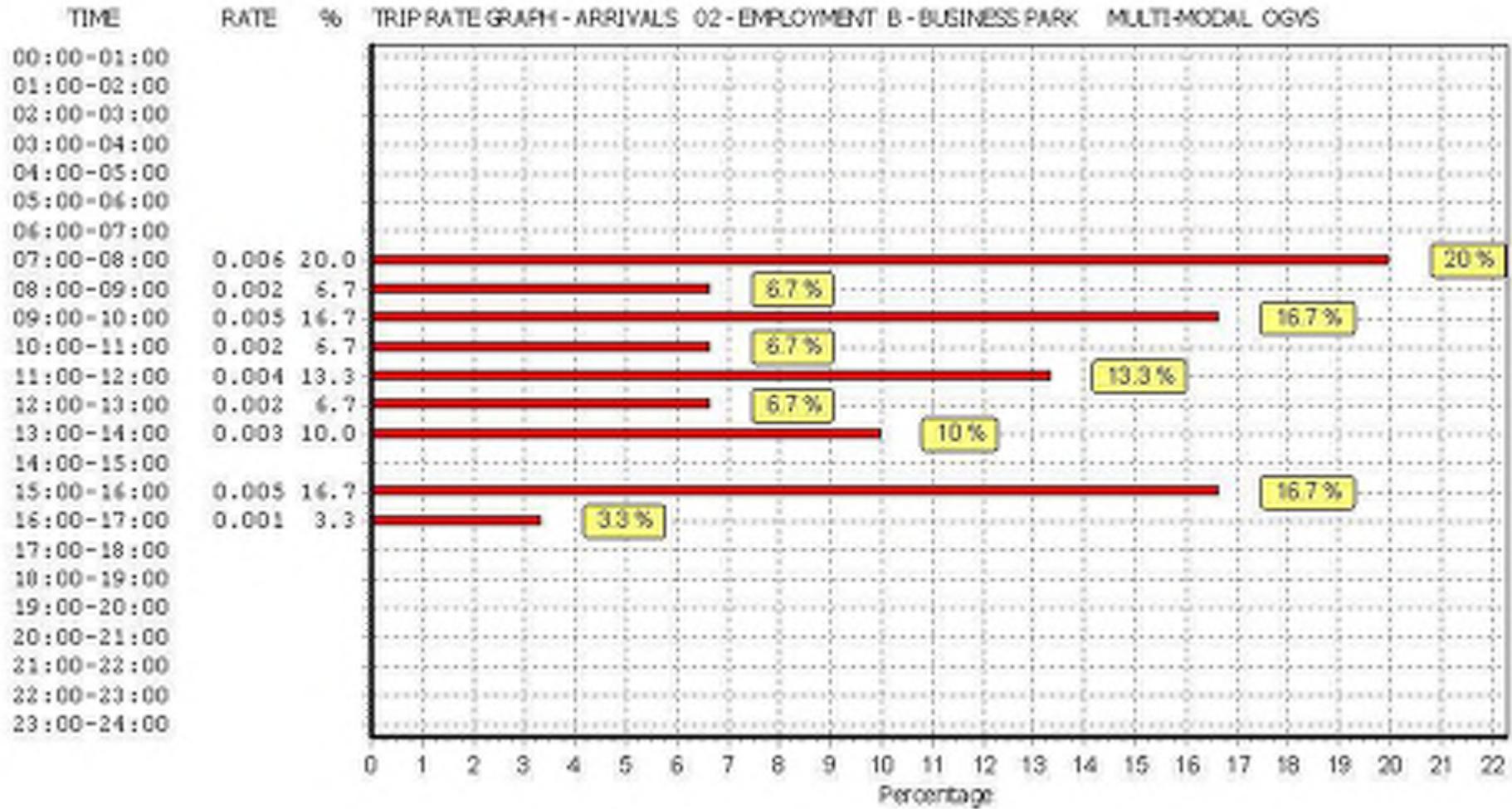
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

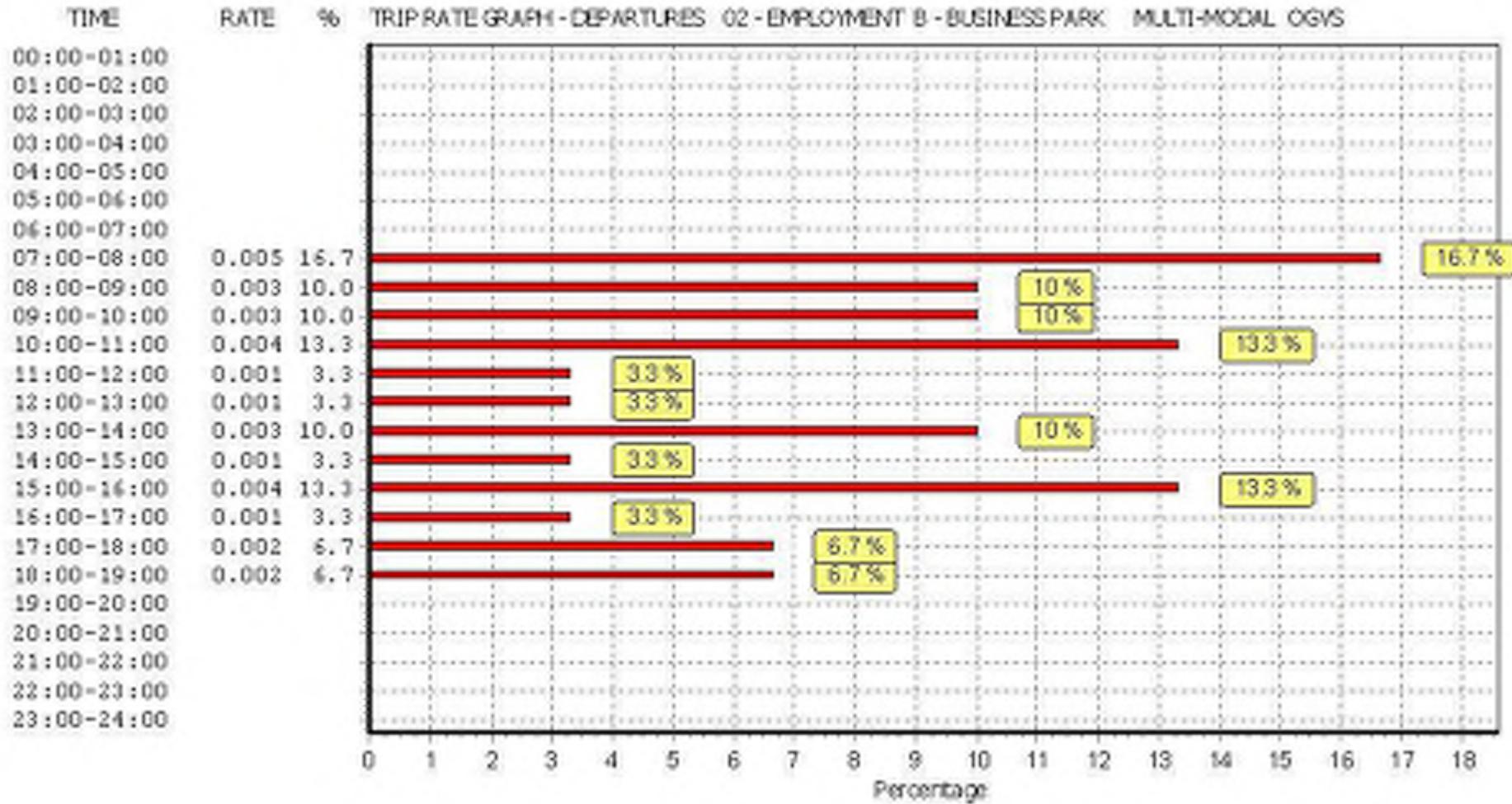
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.003	8	26102	0.003	8	26102	0.006
07:30 - 08:00	8	26102	0.003	8	26102	0.002	8	26102	0.005
08:00 - 08:30	8	26102	0.000	8	26102	0.001	8	26102	0.001
08:30 - 09:00	8	26102	0.002	8	26102	0.002	8	26102	0.004
09:00 - 09:30	8	26102	0.002	8	26102	0.001	8	26102	0.003
09:30 - 10:00	8	26102	0.003	8	26102	0.002	8	26102	0.005
10:00 - 10:30	8	26102	0.001	8	26102	0.003	8	26102	0.004
10:30 - 11:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
11:00 - 11:30	8	26102	0.003	8	26102	0.000	8	26102	0.003
11:30 - 12:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
12:00 - 12:30	8	26102	0.001	8	26102	0.000	8	26102	0.001
12:30 - 13:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
13:00 - 13:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
13:30 - 14:00	8	26102	0.003	8	26102	0.003	8	26102	0.006
14:00 - 14:30	8	26102	0.000	8	26102	0.001	8	26102	0.001
14:30 - 15:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
15:00 - 15:30	8	26102	0.004	8	26102	0.002	8	26102	0.006
15:30 - 16:00	8	26102	0.001	8	26102	0.002	8	26102	0.003
16:00 - 16:30	8	26102	0.001	8	26102	0.000	8	26102	0.001
16:30 - 17:00	8	26102	0.000	8	26102	0.001	8	26102	0.001
17:00 - 17:30	8	26102	0.000	8	26102	0.001	8	26102	0.001
17:30 - 18:00	8	26102	0.000	8	26102	0.001	8	26102	0.001
18:00 - 18:30	8	26102	0.000	8	26102	0.001	8	26102	0.001
18:30 - 19:00	8	26102	0.000	8	26102	0.001	8	26102	0.001
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:			0.030			0.030			0.060

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

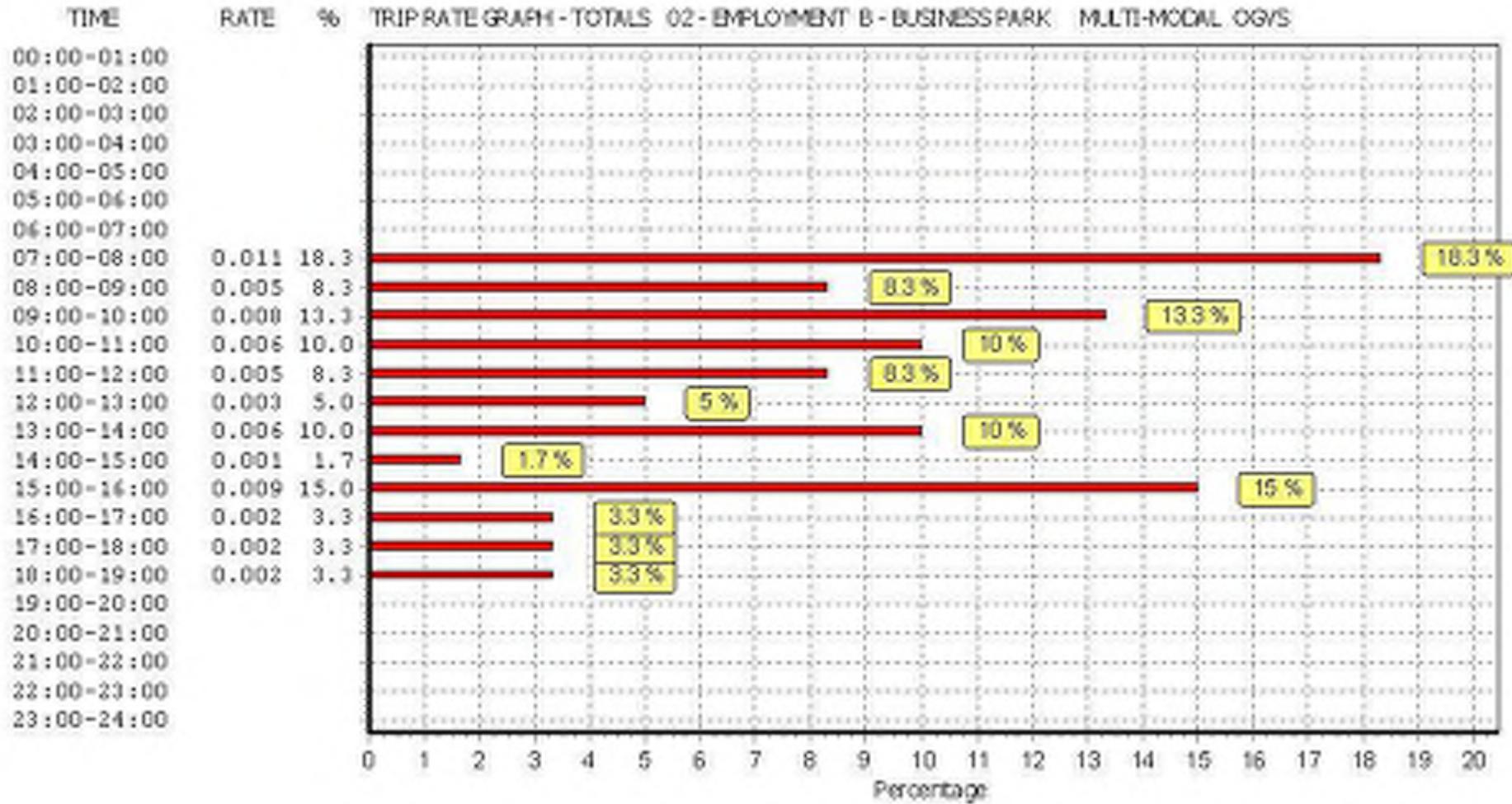
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL PSVS

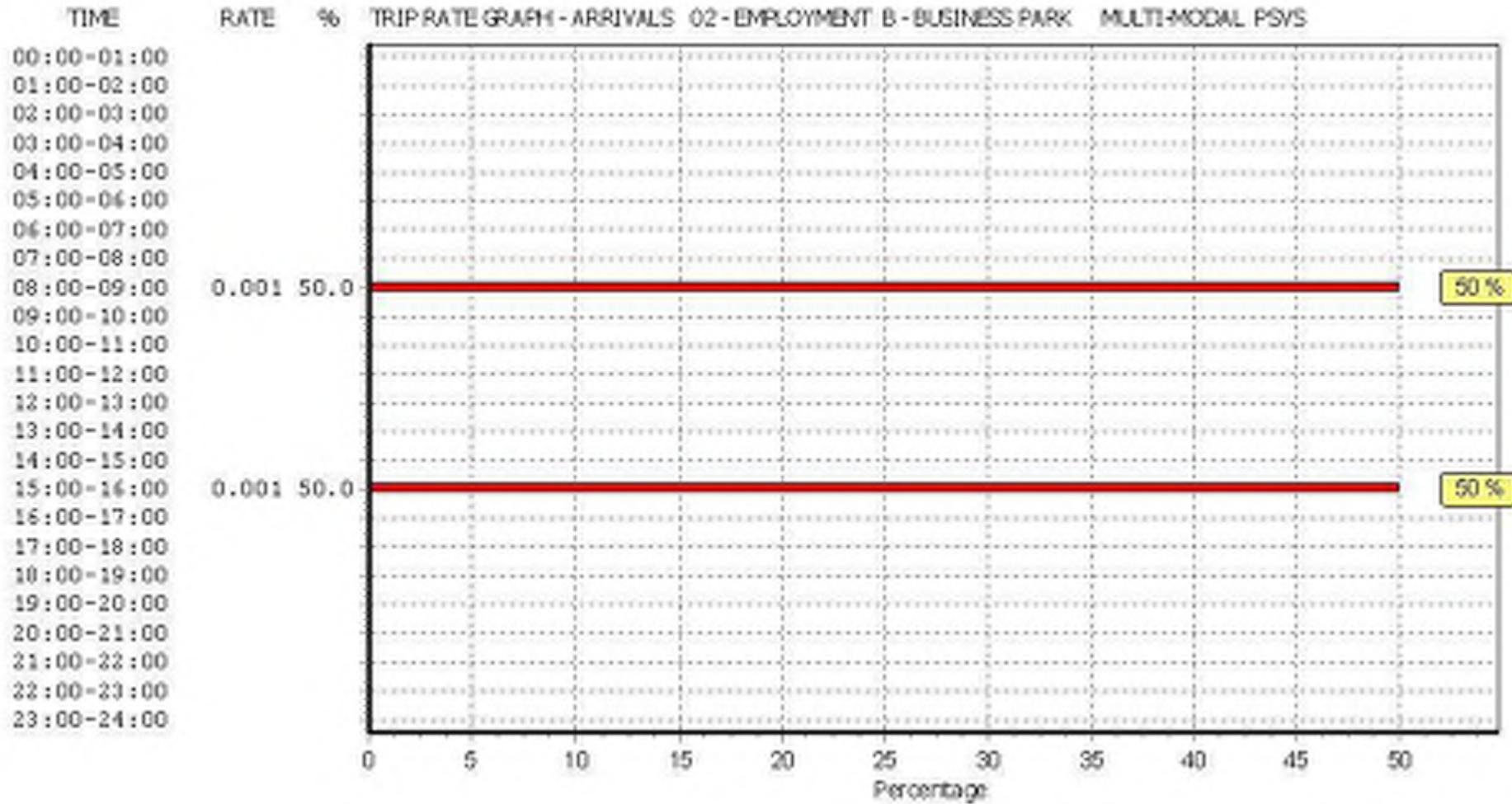
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

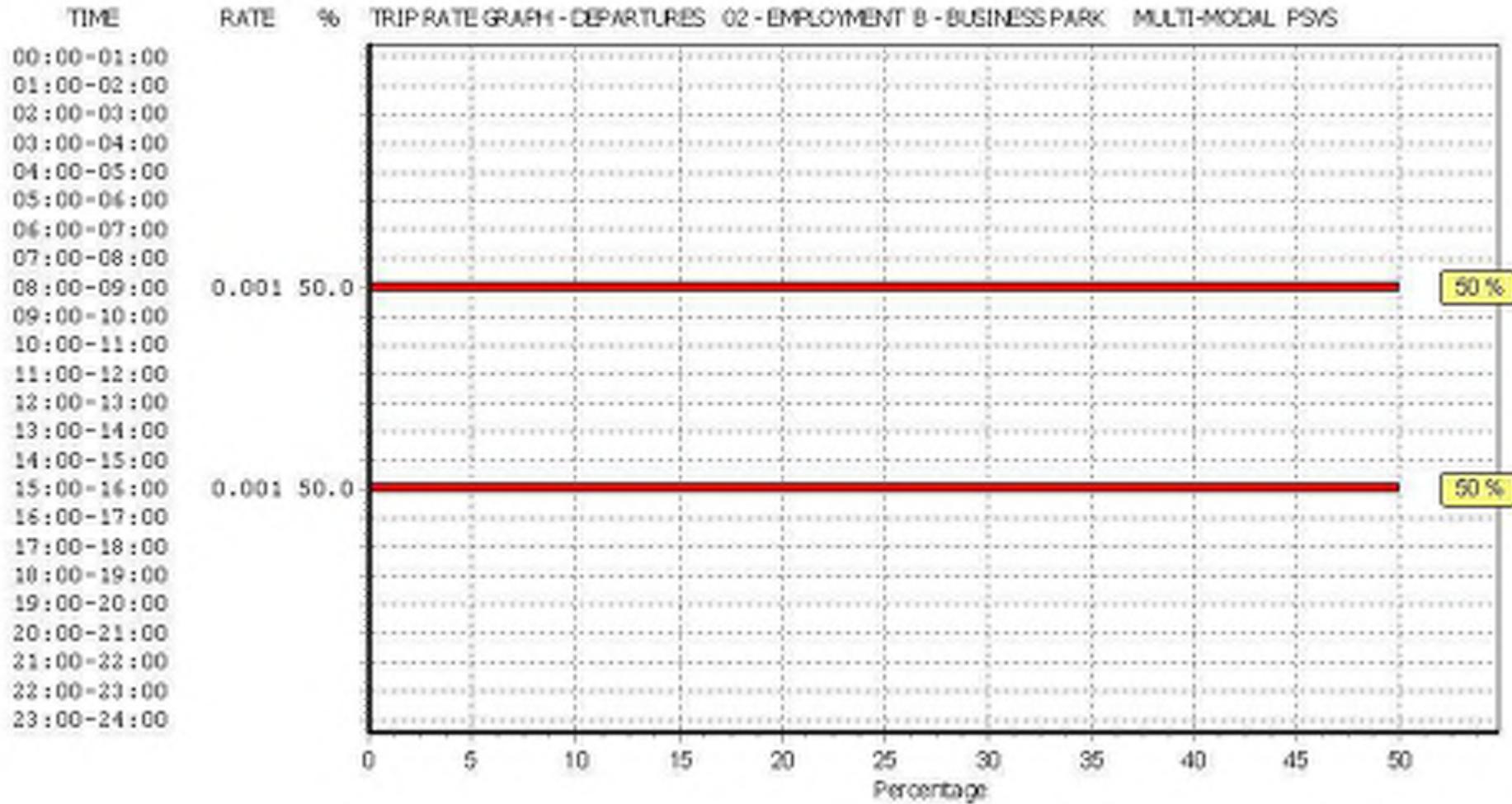
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.000	8	26102	0.000	8	26102	0.000
07:30 - 08:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
08:00 - 08:30	8	26102	0.001	8	26102	0.001	8	26102	0.002
08:30 - 09:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
09:00 - 09:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
09:30 - 10:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
10:00 - 10:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
10:30 - 11:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
11:00 - 11:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
11:30 - 12:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:00 - 12:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:30 - 13:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
13:00 - 13:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
13:30 - 14:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
14:00 - 14:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
14:30 - 15:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
15:00 - 15:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
15:30 - 16:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
16:00 - 16:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
16:30 - 17:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
17:00 - 17:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
17:30 - 18:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
18:00 - 18:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
18:30 - 19:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
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:			0.002			0.002			0.004

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

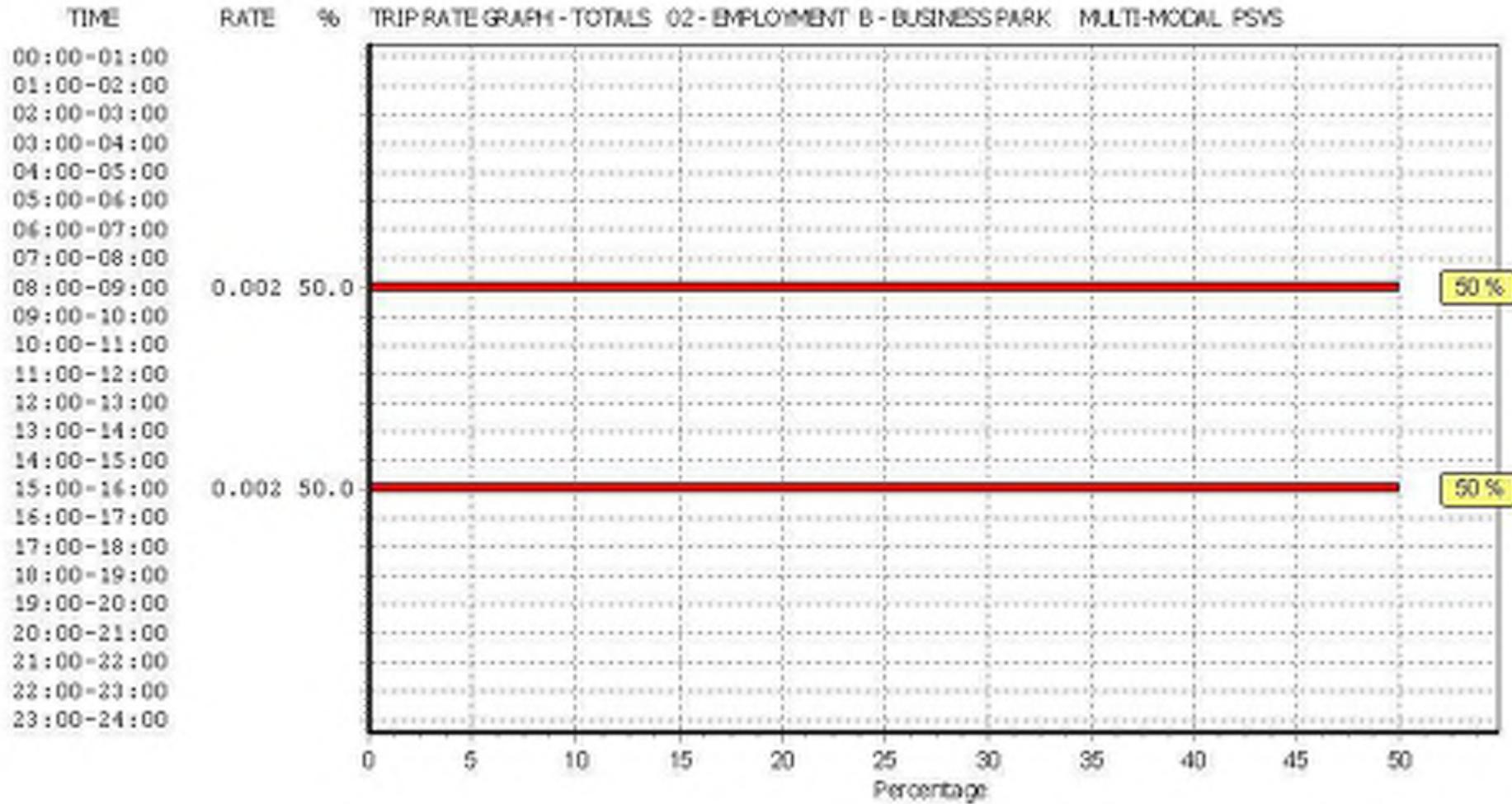
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL CYCLISTS

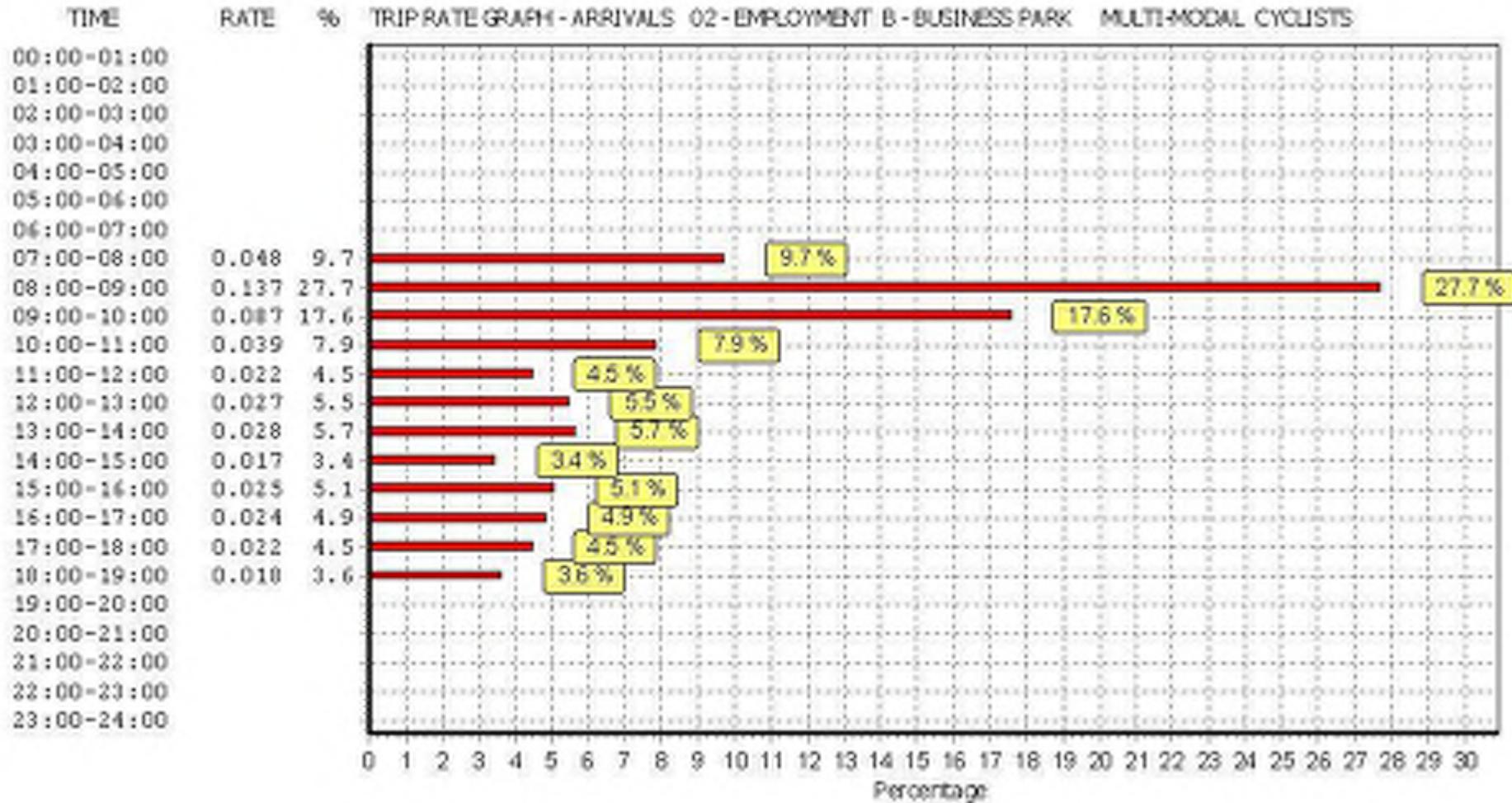
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

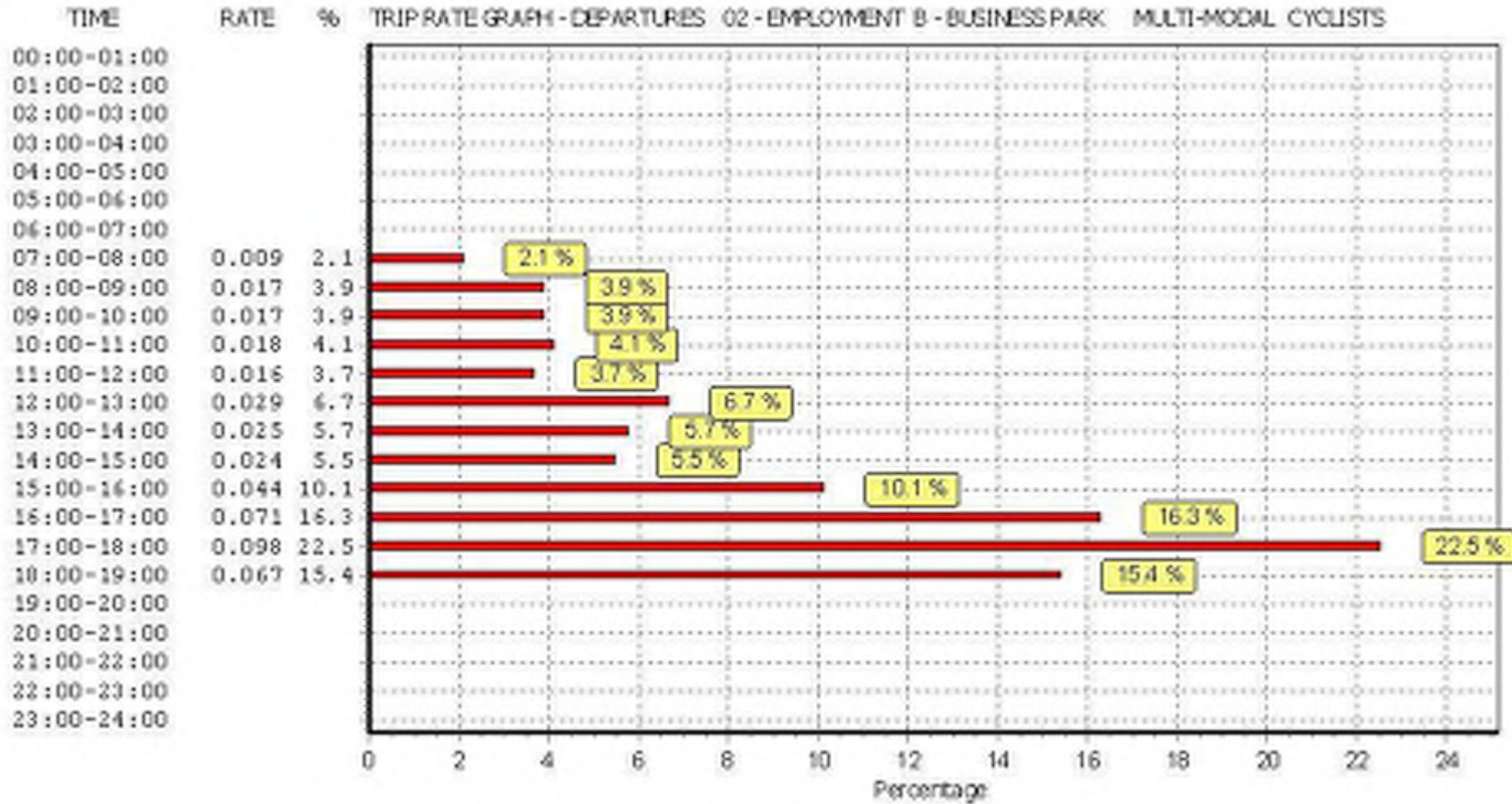
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.016	8	26102	0.003	8	26102	0.019
07:30 - 08:00	8	26102	0.032	8	26102	0.006	8	26102	0.038
08:00 - 08:30	8	26102	0.065	8	26102	0.010	8	26102	0.075
08:30 - 09:00	8	26102	0.072	8	26102	0.007	8	26102	0.079
09:00 - 09:30	8	26102	0.048	8	26102	0.007	8	26102	0.055
09:30 - 10:00	8	26102	0.039	8	26102	0.010	8	26102	0.049
10:00 - 10:30	8	26102	0.019	8	26102	0.010	8	26102	0.029
10:30 - 11:00	8	26102	0.020	8	26102	0.008	8	26102	0.028
11:00 - 11:30	8	26102	0.011	8	26102	0.006	8	26102	0.017
11:30 - 12:00	8	26102	0.011	8	26102	0.010	8	26102	0.021
12:00 - 12:30	8	26102	0.015	8	26102	0.014	8	26102	0.029
12:30 - 13:00	8	26102	0.012	8	26102	0.015	8	26102	0.027
13:00 - 13:30	8	26102	0.017	8	26102	0.014	8	26102	0.031
13:30 - 14:00	8	26102	0.011	8	26102	0.011	8	26102	0.022
14:00 - 14:30	8	26102	0.009	8	26102	0.010	8	26102	0.019
14:30 - 15:00	8	26102	0.008	8	26102	0.014	8	26102	0.022
15:00 - 15:30	8	26102	0.015	8	26102	0.023	8	26102	0.038
15:30 - 16:00	8	26102	0.010	8	26102	0.021	8	26102	0.031
16:00 - 16:30	8	26102	0.011	8	26102	0.030	8	26102	0.041
16:30 - 17:00	8	26102	0.013	8	26102	0.041	8	26102	0.054
17:00 - 17:30	8	26102	0.012	8	26102	0.049	8	26102	0.061
17:30 - 18:00	8	26102	0.010	8	26102	0.049	8	26102	0.059
18:00 - 18:30	8	26102	0.012	8	26102	0.040	8	26102	0.052
18:30 - 19:00	8	26102	0.006	8	26102	0.027	8	26102	0.033
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:			0.494			0.435			0.929

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

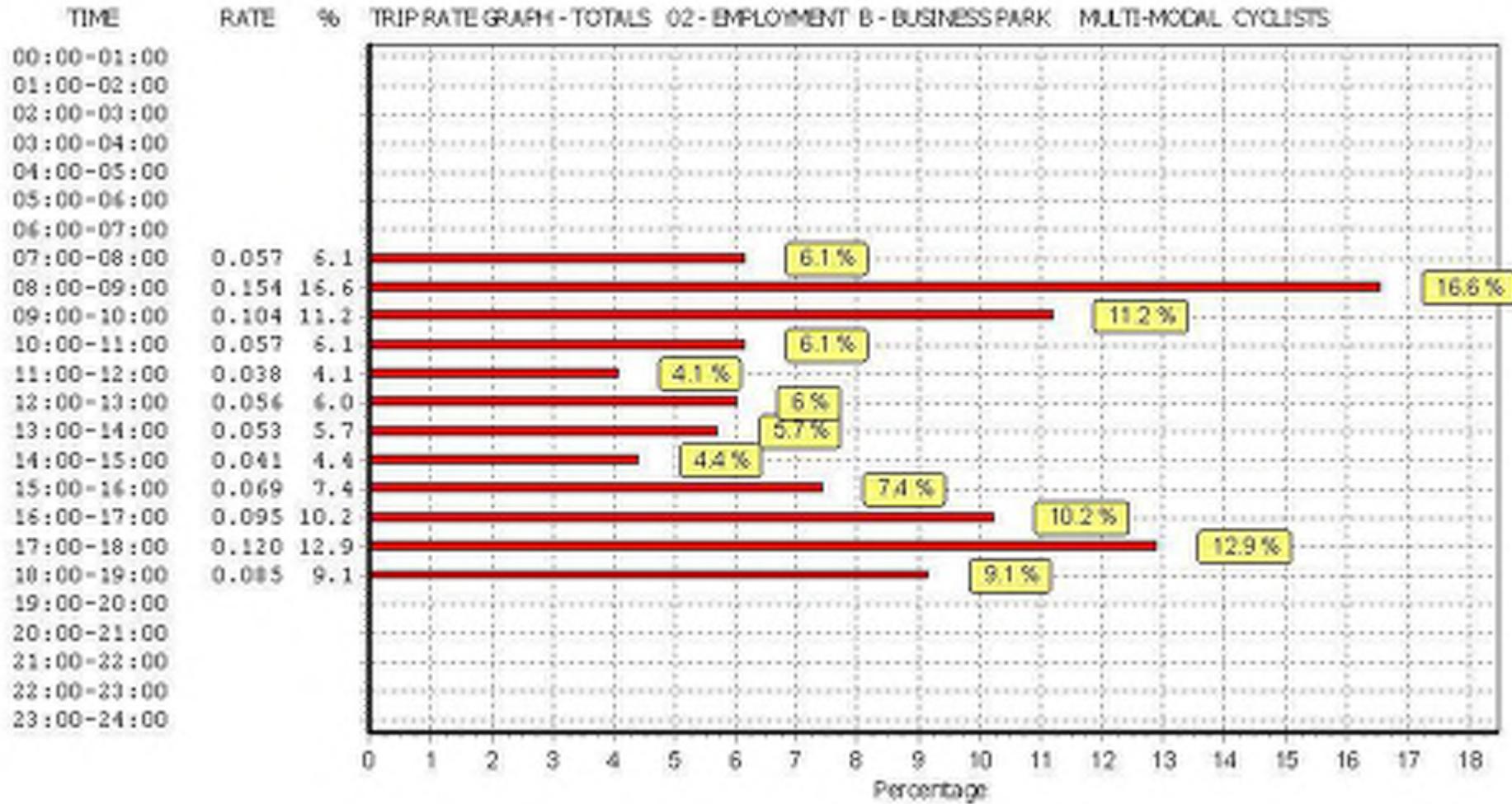
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL VEHICLE OCCUPANTS

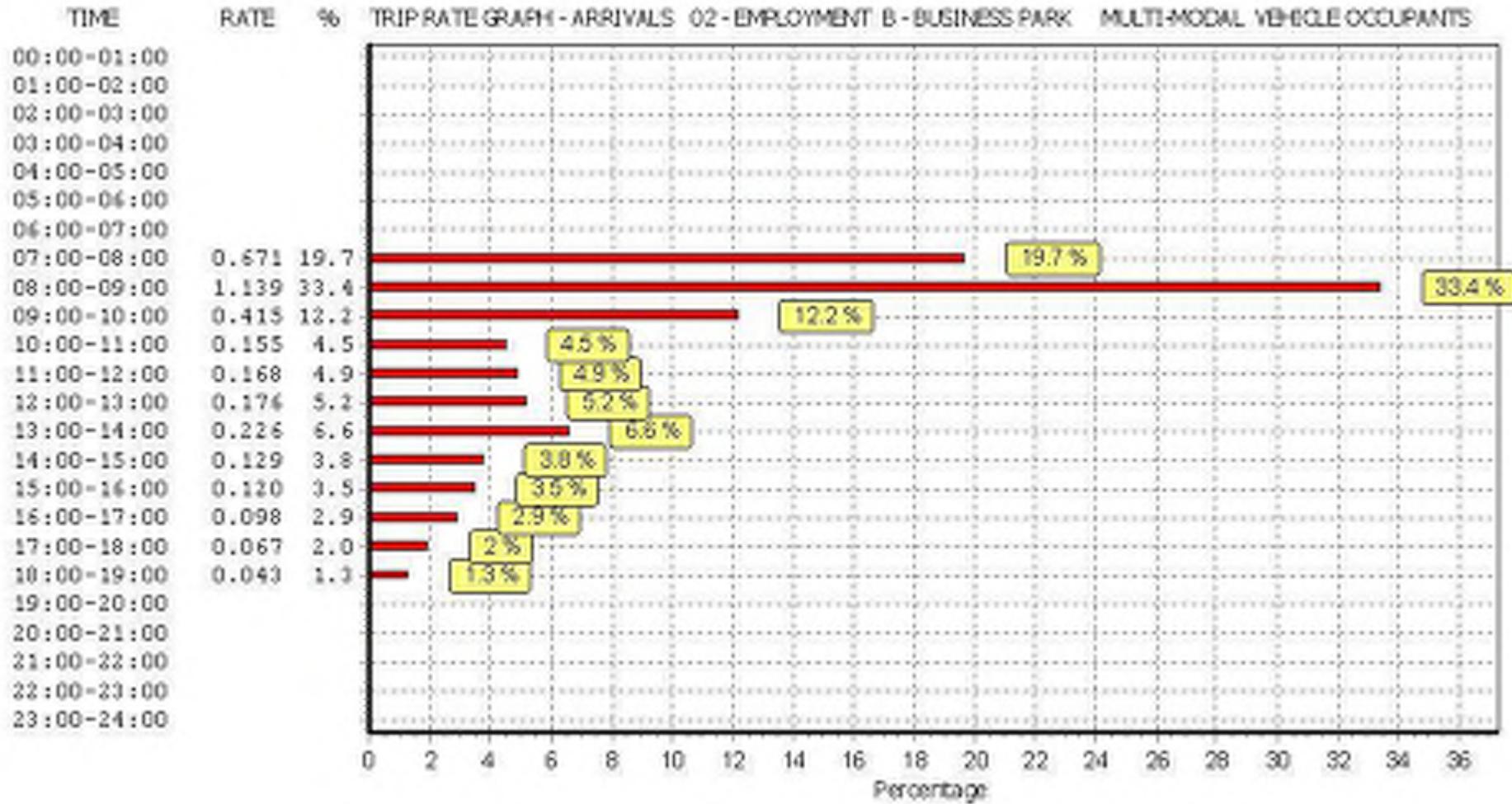
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

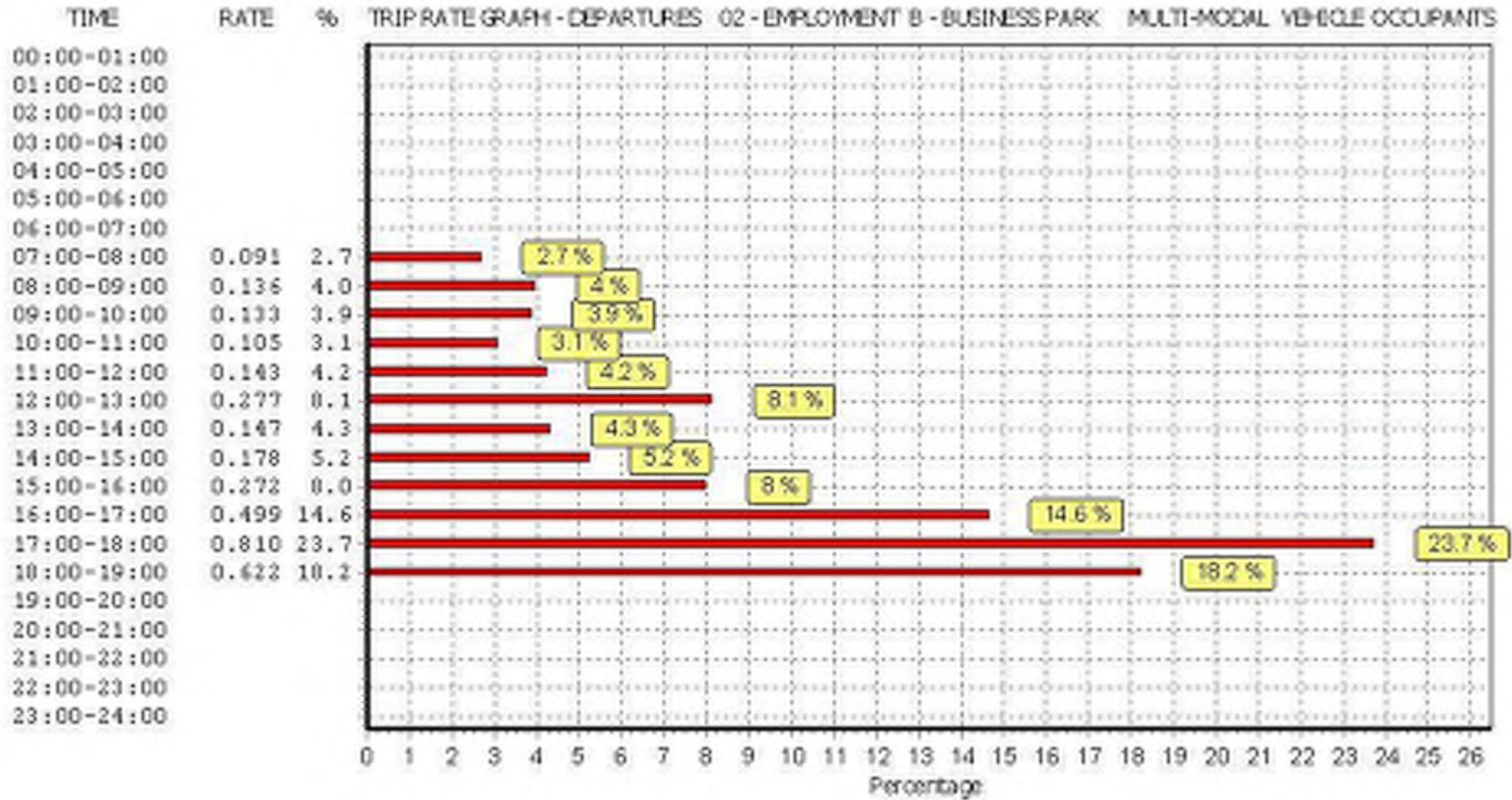
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.217	8	26102	0.035	8	26102	0.252
07:30 - 08:00	8	26102	0.454	8	26102	0.056	8	26102	0.510
08:00 - 08:30	8	26102	0.599	8	26102	0.074	8	26102	0.673
08:30 - 09:00	8	26102	0.540	8	26102	0.062	8	26102	0.602
09:00 - 09:30	8	26102	0.304	8	26102	0.068	8	26102	0.372
09:30 - 10:00	8	26102	0.111	8	26102	0.065	8	26102	0.176
10:00 - 10:30	8	26102	0.088	8	26102	0.058	8	26102	0.146
10:30 - 11:00	8	26102	0.067	8	26102	0.047	8	26102	0.114
11:00 - 11:30	8	26102	0.087	8	26102	0.072	8	26102	0.159
11:30 - 12:00	8	26102	0.081	8	26102	0.071	8	26102	0.152
12:00 - 12:30	8	26102	0.083	8	26102	0.154	8	26102	0.237
12:30 - 13:00	8	26102	0.093	8	26102	0.123	8	26102	0.216
13:00 - 13:30	8	26102	0.128	8	26102	0.074	8	26102	0.202
13:30 - 14:00	8	26102	0.098	8	26102	0.073	8	26102	0.171
14:00 - 14:30	8	26102	0.070	8	26102	0.085	8	26102	0.155
14:30 - 15:00	8	26102	0.059	8	26102	0.093	8	26102	0.152
15:00 - 15:30	8	26102	0.060	8	26102	0.132	8	26102	0.192
15:30 - 16:00	8	26102	0.060	8	26102	0.140	8	26102	0.200
16:00 - 16:30	8	26102	0.054	8	26102	0.227	8	26102	0.281
16:30 - 17:00	8	26102	0.044	8	26102	0.272	8	26102	0.316
17:00 - 17:30	8	26102	0.037	8	26102	0.429	8	26102	0.466
17:30 - 18:00	8	26102	0.030	8	26102	0.381	8	26102	0.411
18:00 - 18:30	8	26102	0.023	8	26102	0.338	8	26102	0.361
18:30 - 19:00	8	26102	0.020	8	26102	0.284	8	26102	0.304
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:			3.407			3.413			6.820

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

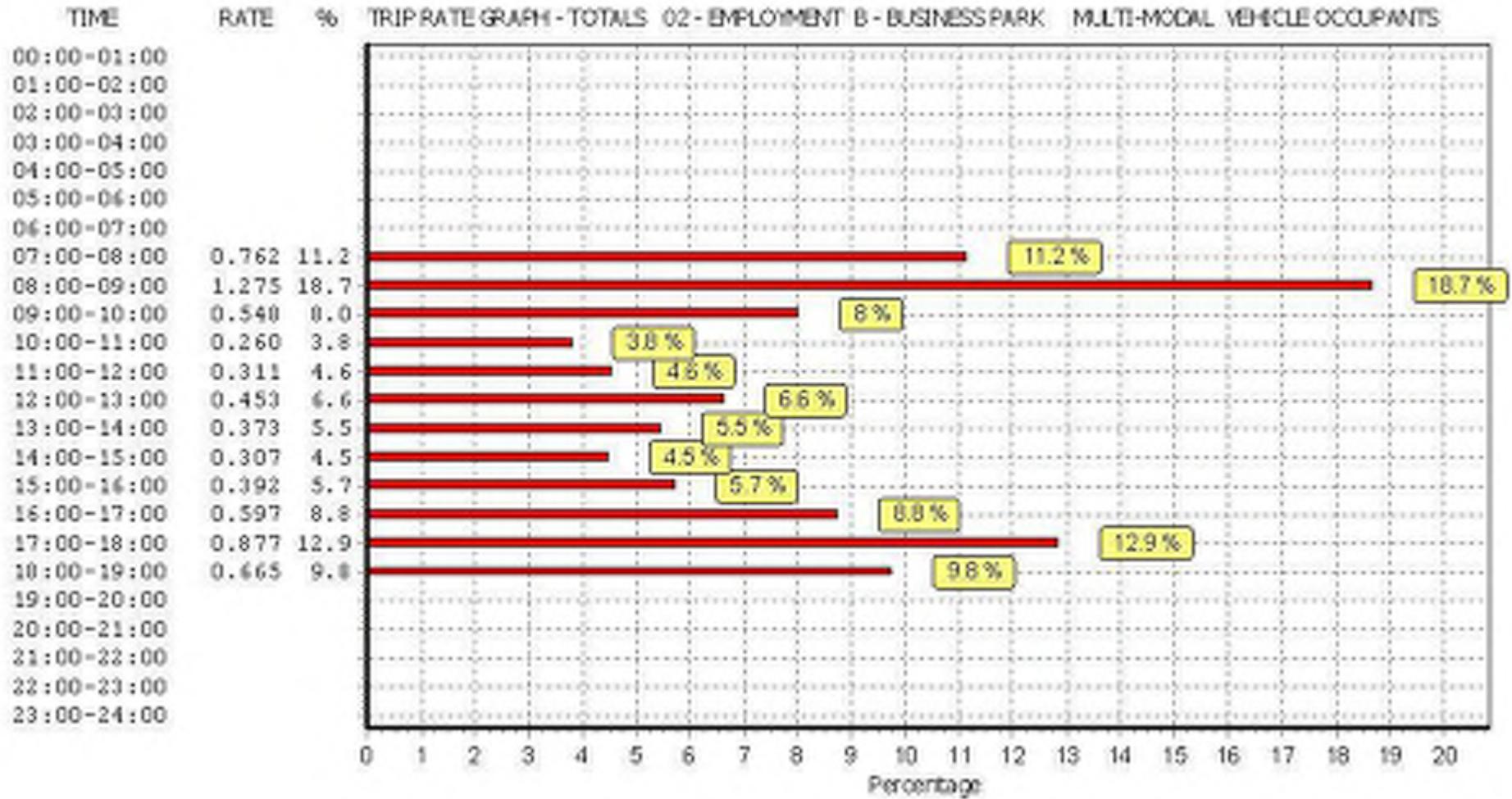
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL PEDESTRIANS

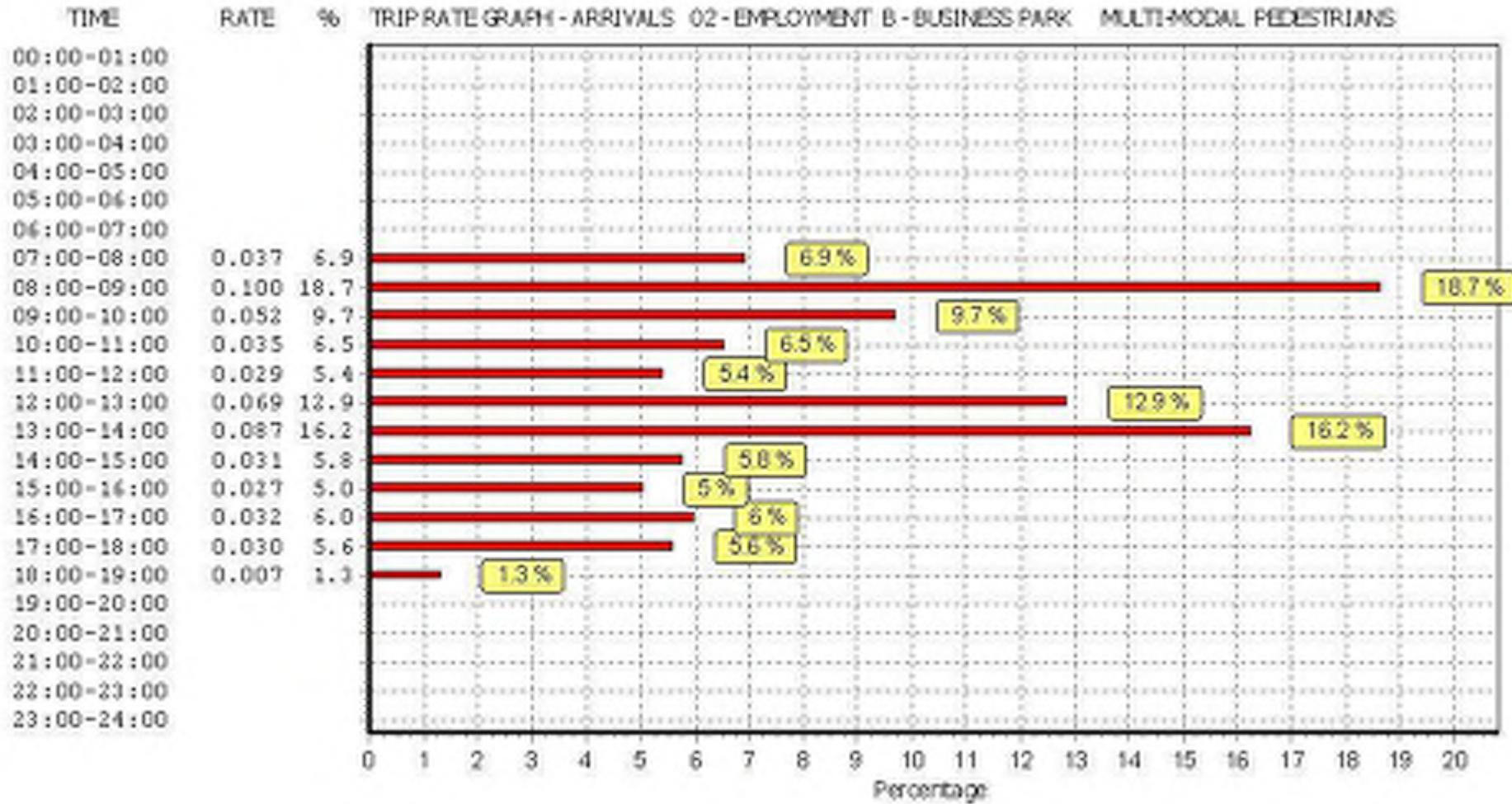
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

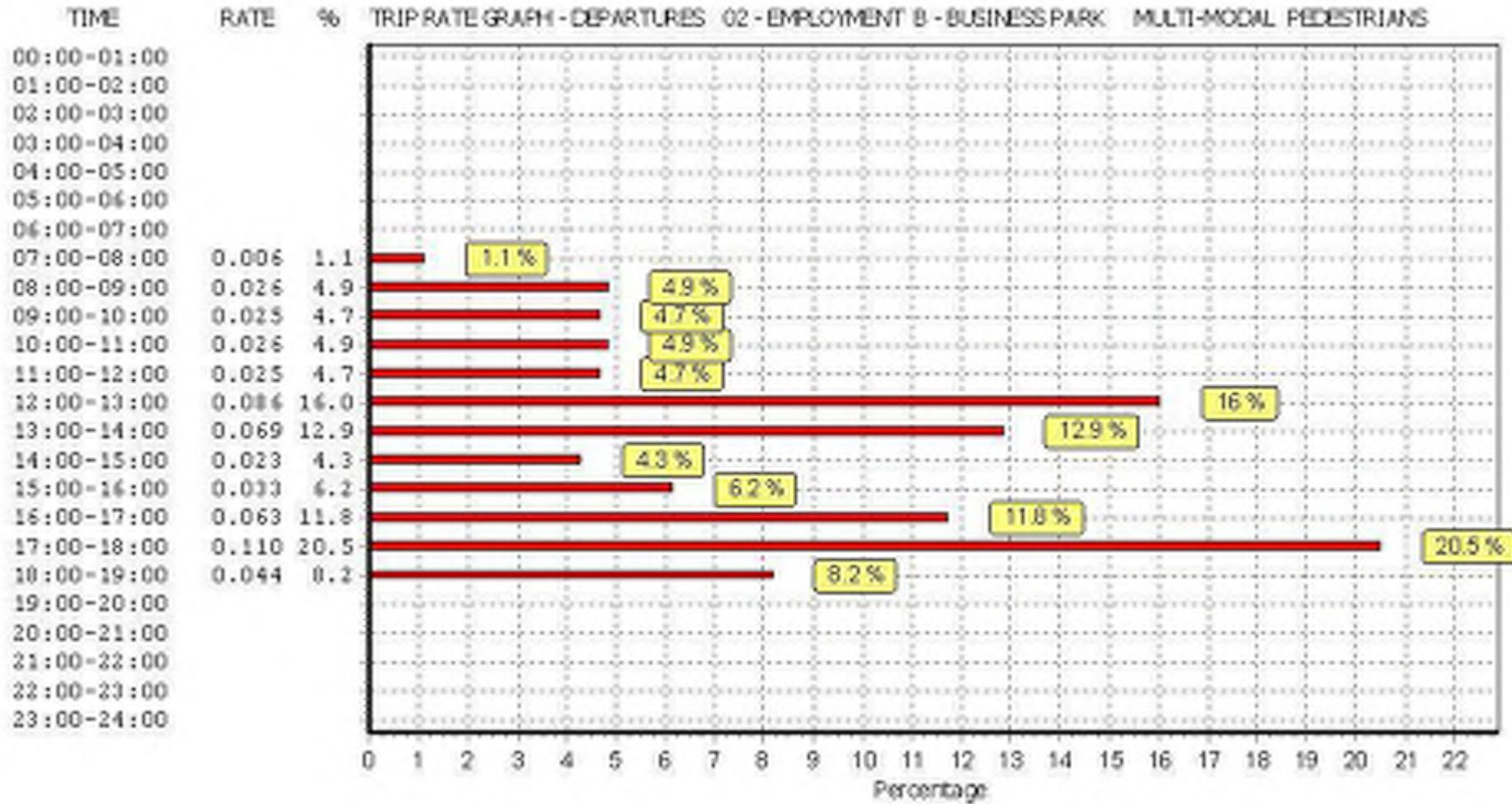
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.012	8	26102	0.003	8	26102	0.015
07:30 - 08:00	8	26102	0.025	8	26102	0.003	8	26102	0.028
08:00 - 08:30	8	26102	0.057	8	26102	0.016	8	26102	0.073
08:30 - 09:00	8	26102	0.043	8	26102	0.010	8	26102	0.053
09:00 - 09:30	8	26102	0.029	8	26102	0.011	8	26102	0.040
09:30 - 10:00	8	26102	0.023	8	26102	0.014	8	26102	0.037
10:00 - 10:30	8	26102	0.019	8	26102	0.013	8	26102	0.032
10:30 - 11:00	8	26102	0.016	8	26102	0.013	8	26102	0.029
11:00 - 11:30	8	26102	0.015	8	26102	0.008	8	26102	0.023
11:30 - 12:00	8	26102	0.014	8	26102	0.017	8	26102	0.031
12:00 - 12:30	8	26102	0.027	8	26102	0.044	8	26102	0.071
12:30 - 13:00	8	26102	0.042	8	26102	0.042	8	26102	0.084
13:00 - 13:30	8	26102	0.042	8	26102	0.052	8	26102	0.094
13:30 - 14:00	8	26102	0.045	8	26102	0.017	8	26102	0.062
14:00 - 14:30	8	26102	0.022	8	26102	0.012	8	26102	0.034
14:30 - 15:00	8	26102	0.009	8	26102	0.011	8	26102	0.020
15:00 - 15:30	8	26102	0.014	8	26102	0.013	8	26102	0.027
15:30 - 16:00	8	26102	0.013	8	26102	0.020	8	26102	0.033
16:00 - 16:30	8	26102	0.018	8	26102	0.029	8	26102	0.047
16:30 - 17:00	8	26102	0.014	8	26102	0.034	8	26102	0.048
17:00 - 17:30	8	26102	0.019	8	26102	0.056	8	26102	0.075
17:30 - 18:00	8	26102	0.011	8	26102	0.054	8	26102	0.065
18:00 - 18:30	8	26102	0.006	8	26102	0.027	8	26102	0.033
18:30 - 19:00	8	26102	0.001	8	26102	0.017	8	26102	0.018
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:			0.536			0.536			1.072

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

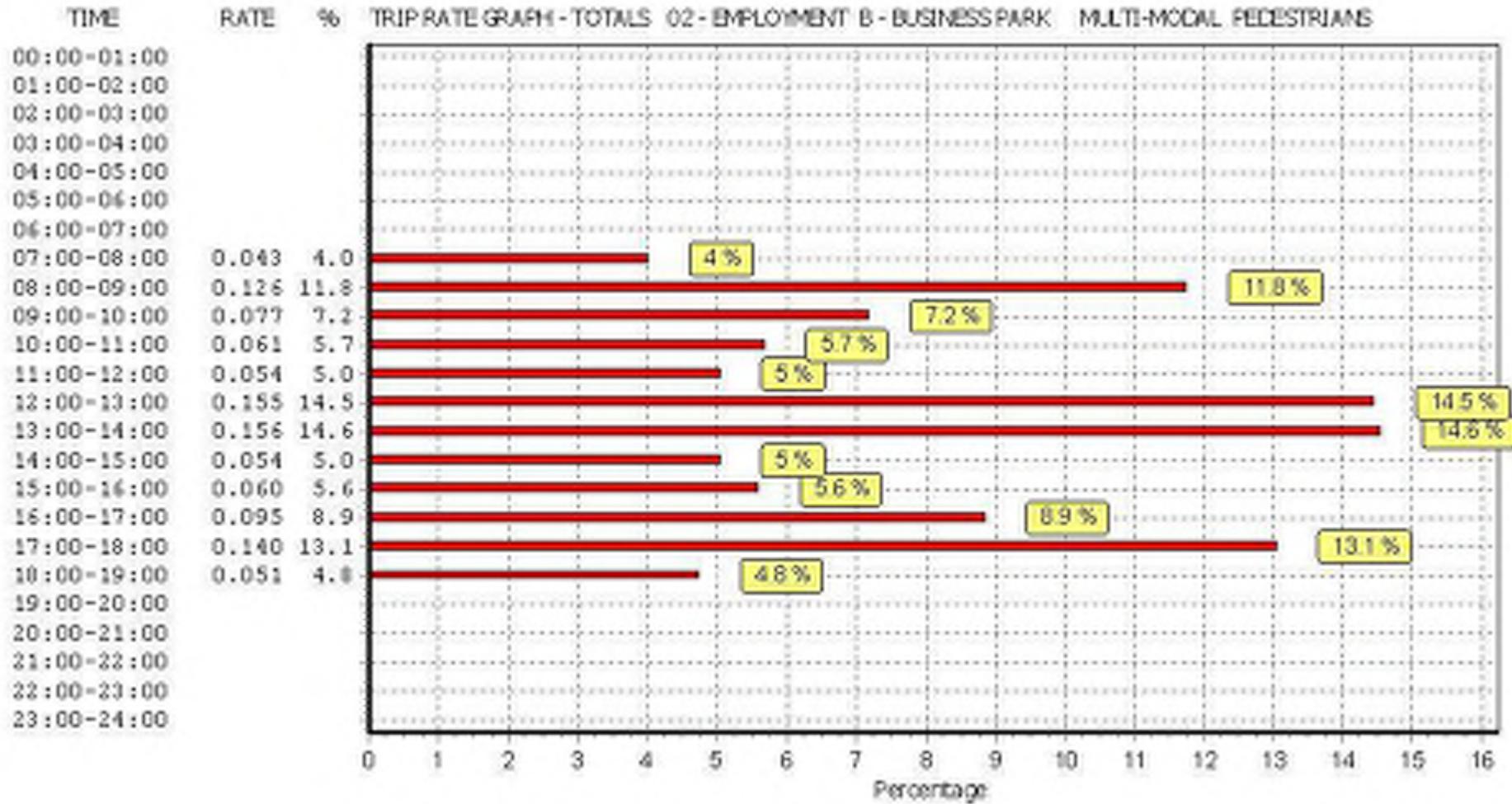
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL BUS/TRAM PASSENGERS

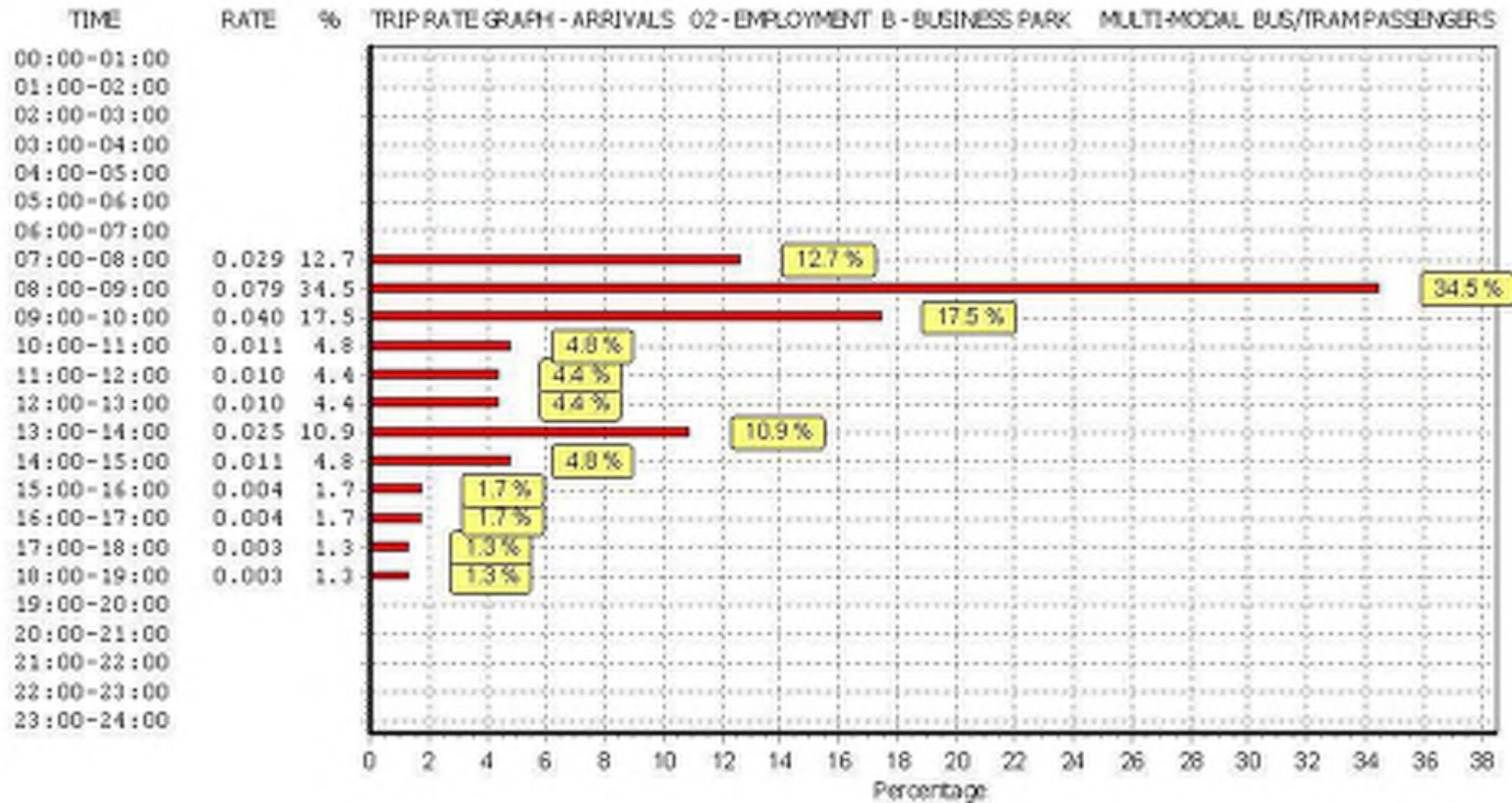
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

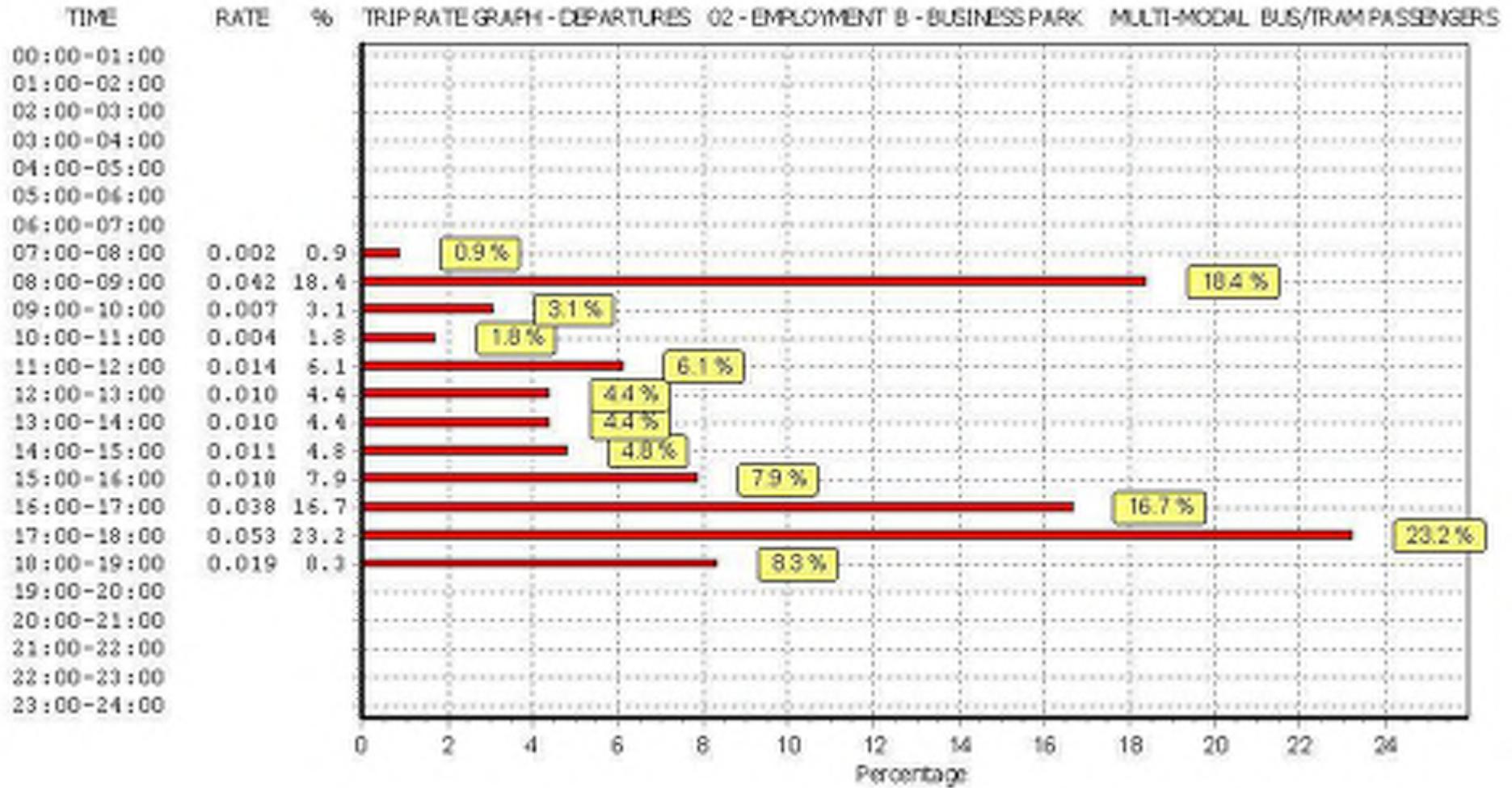
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.012	8	26102	0.001	8	26102	0.013
07:30 - 08:00	8	26102	0.017	8	26102	0.001	8	26102	0.018
08:00 - 08:30	8	26102	0.036	8	26102	0.034	8	26102	0.070
08:30 - 09:00	8	26102	0.043	8	26102	0.008	8	26102	0.051
09:00 - 09:30	8	26102	0.025	8	26102	0.004	8	26102	0.029
09:30 - 10:00	8	26102	0.015	8	26102	0.003	8	26102	0.018
10:00 - 10:30	8	26102	0.005	8	26102	0.002	8	26102	0.007
10:30 - 11:00	8	26102	0.006	8	26102	0.002	8	26102	0.008
11:00 - 11:30	8	26102	0.007	8	26102	0.003	8	26102	0.010
11:30 - 12:00	8	26102	0.003	8	26102	0.011	8	26102	0.014
12:00 - 12:30	8	26102	0.003	8	26102	0.006	8	26102	0.009
12:30 - 13:00	8	26102	0.007	8	26102	0.004	8	26102	0.011
13:00 - 13:30	8	26102	0.004	8	26102	0.005	8	26102	0.009
13:30 - 14:00	8	26102	0.021	8	26102	0.005	8	26102	0.026
14:00 - 14:30	8	26102	0.003	8	26102	0.004	8	26102	0.007
14:30 - 15:00	8	26102	0.008	8	26102	0.007	8	26102	0.015
15:00 - 15:30	8	26102	0.001	8	26102	0.012	8	26102	0.013
15:30 - 16:00	8	26102	0.003	8	26102	0.006	8	26102	0.009
16:00 - 16:30	8	26102	0.002	8	26102	0.019	8	26102	0.021
16:30 - 17:00	8	26102	0.002	8	26102	0.019	8	26102	0.021
17:00 - 17:30	8	26102	0.002	8	26102	0.023	8	26102	0.025
17:30 - 18:00	8	26102	0.001	8	26102	0.030	8	26102	0.031
18:00 - 18:30	8	26102	0.001	8	26102	0.008	8	26102	0.009
18:30 - 19:00	8	26102	0.002	8	26102	0.011	8	26102	0.013
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:			0.229			0.228			0.457

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

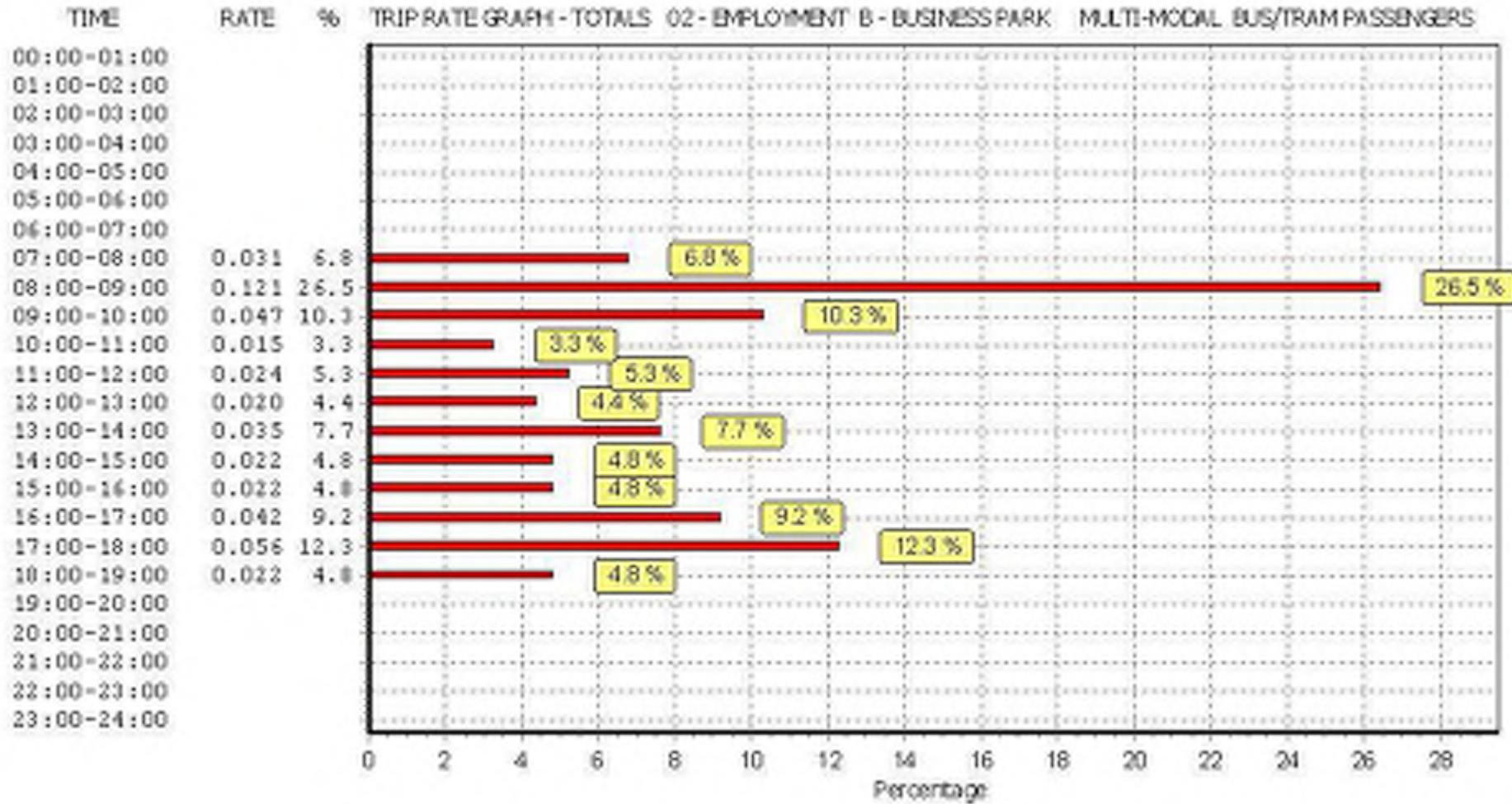
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
 MULTI-MODAL TOTAL RAIL PASSENGERS

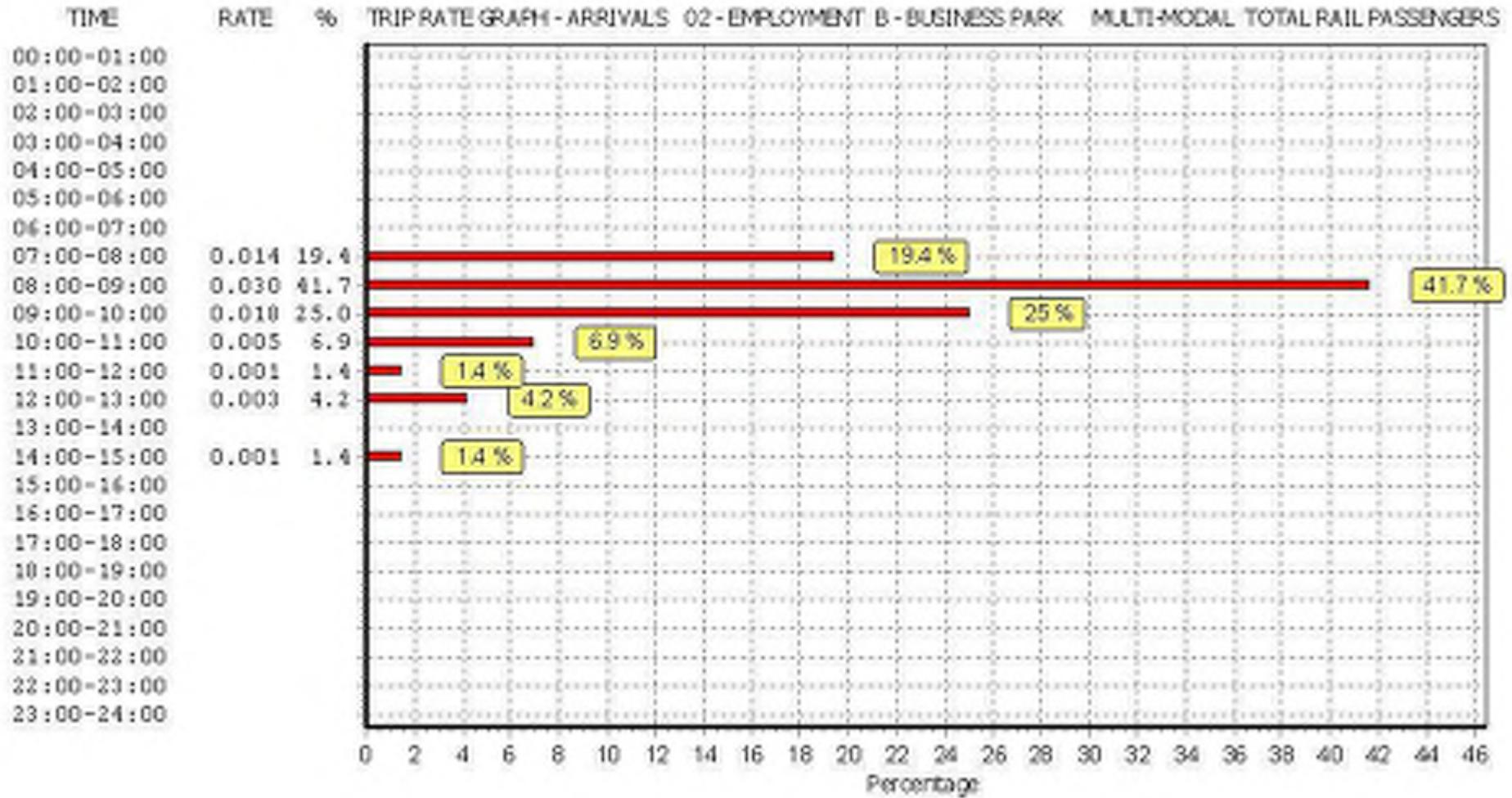
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

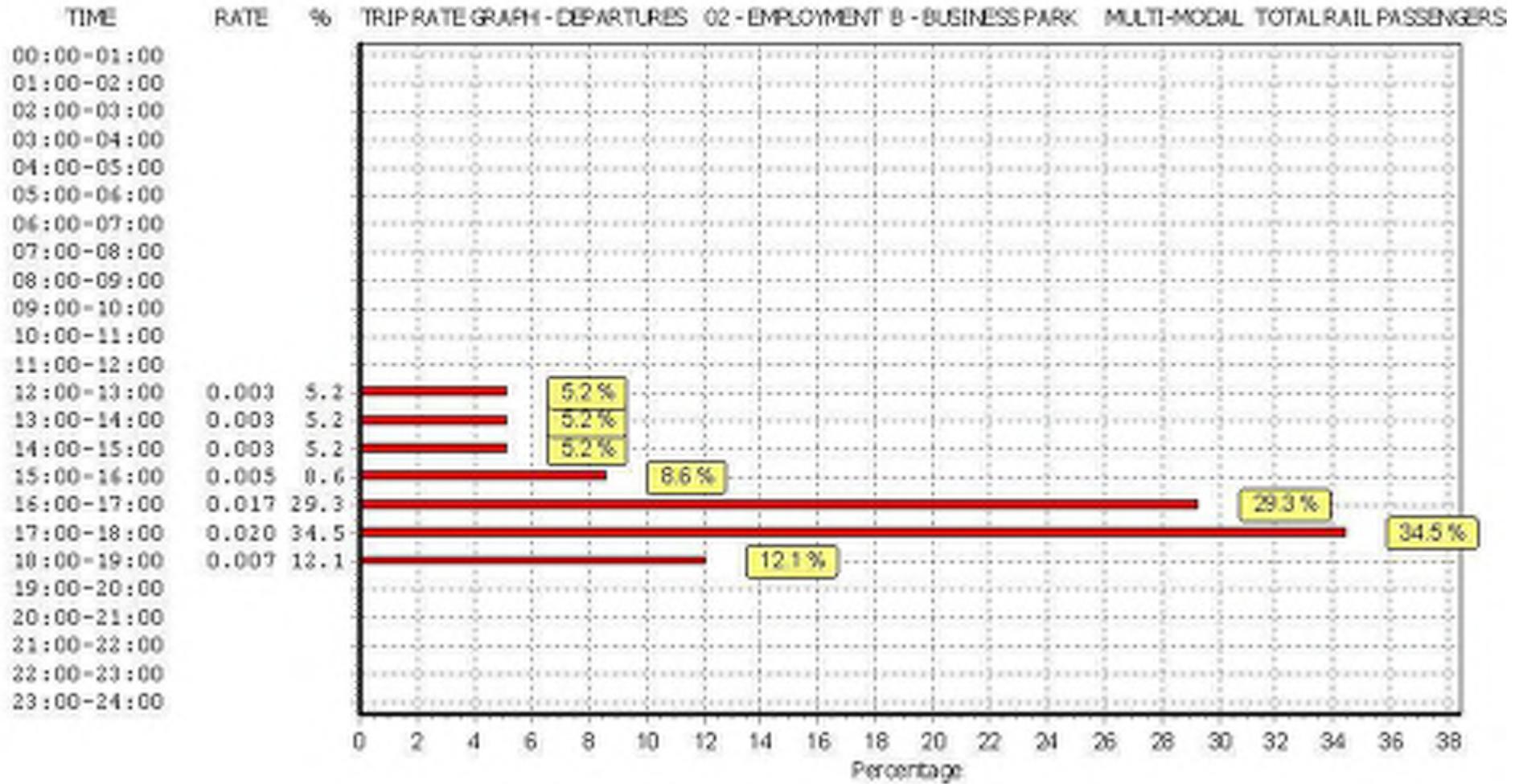
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.003	8	26102	0.000	8	26102	0.003
07:30 - 08:00	8	26102	0.011	8	26102	0.000	8	26102	0.011
08:00 - 08:30	8	26102	0.015	8	26102	0.000	8	26102	0.015
08:30 - 09:00	8	26102	0.015	8	26102	0.000	8	26102	0.015
09:00 - 09:30	8	26102	0.011	8	26102	0.000	8	26102	0.011
09:30 - 10:00	8	26102	0.007	8	26102	0.000	8	26102	0.007
10:00 - 10:30	8	26102	0.003	8	26102	0.000	8	26102	0.003
10:30 - 11:00	8	26102	0.002	8	26102	0.000	8	26102	0.002
11:00 - 11:30	8	26102	0.001	8	26102	0.000	8	26102	0.001
11:30 - 12:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:00 - 12:30	8	26102	0.002	8	26102	0.001	8	26102	0.003
12:30 - 13:00	8	26102	0.001	8	26102	0.002	8	26102	0.003
13:00 - 13:30	8	26102	0.000	8	26102	0.003	8	26102	0.003
13:30 - 14:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
14:00 - 14:30	8	26102	0.000	8	26102	0.002	8	26102	0.002
14:30 - 15:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
15:00 - 15:30	8	26102	0.000	8	26102	0.003	8	26102	0.003
15:30 - 16:00	8	26102	0.000	8	26102	0.002	8	26102	0.002
16:00 - 16:30	8	26102	0.000	8	26102	0.007	8	26102	0.007
16:30 - 17:00	8	26102	0.000	8	26102	0.010	8	26102	0.010
17:00 - 17:30	8	26102	0.000	8	26102	0.011	8	26102	0.011
17:30 - 18:00	8	26102	0.000	8	26102	0.009	8	26102	0.009
18:00 - 18:30	8	26102	0.000	8	26102	0.005	8	26102	0.005
18:30 - 19:00	8	26102	0.000	8	26102	0.002	8	26102	0.002
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:			0.072			0.058			0.130

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

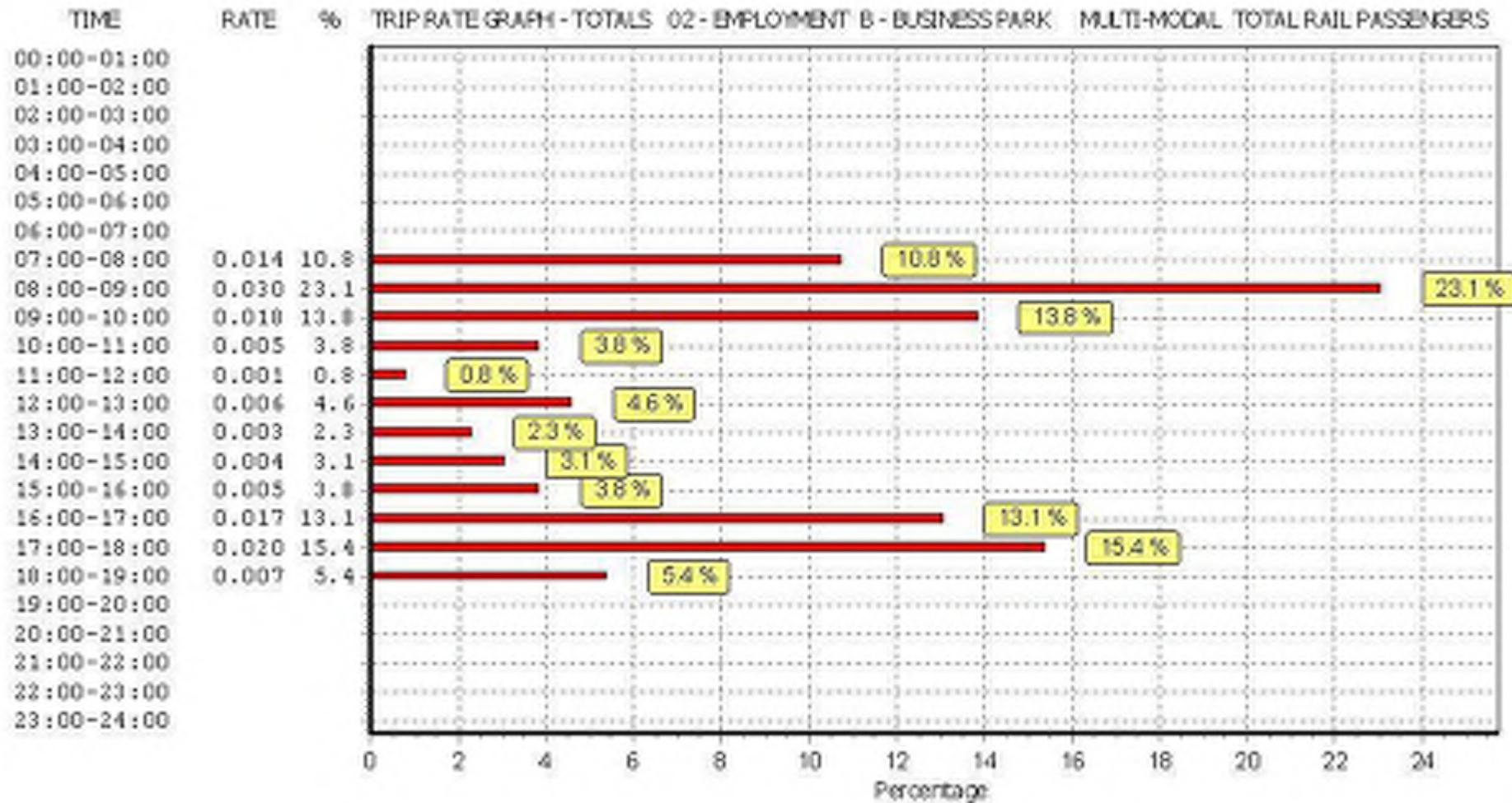
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL COACH PASSENGERS

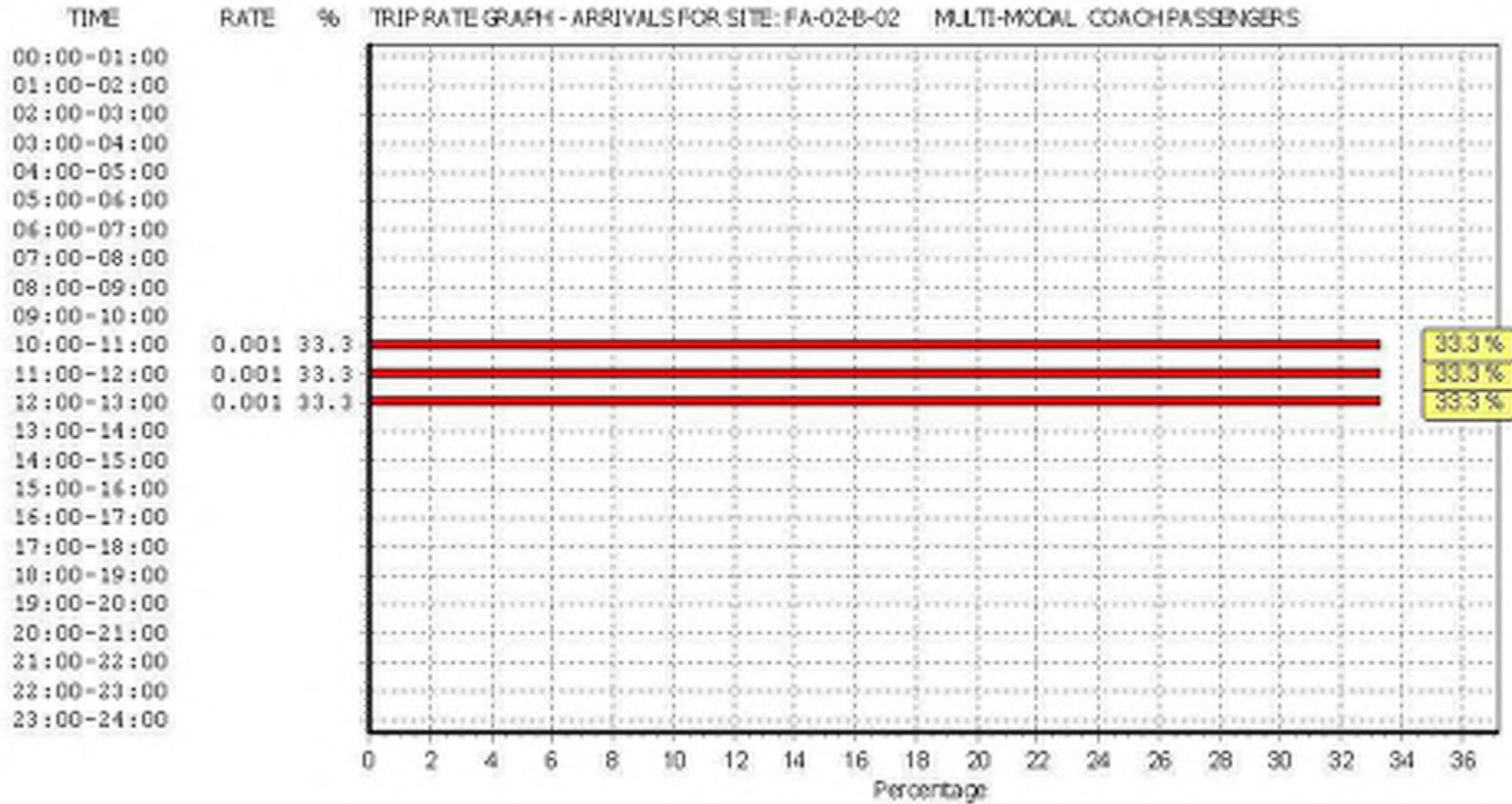
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

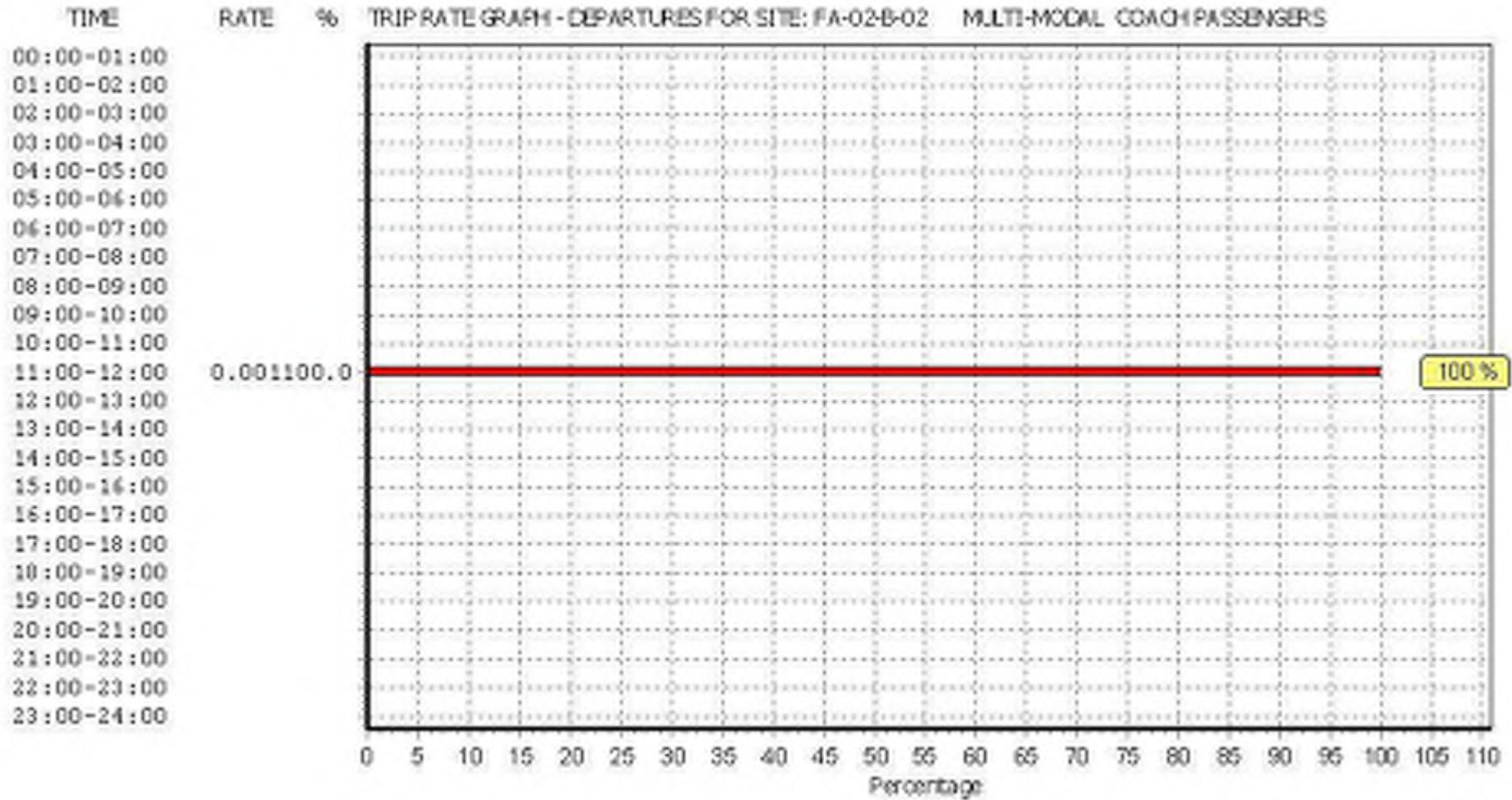
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.000	8	26102	0.000	8	26102	0.000
07:30 - 08:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
08:00 - 08:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
08:30 - 09:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
09:00 - 09:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
09:30 - 10:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
10:00 - 10:30	8	26102	0.001	8	26102	0.000	8	26102	0.001
10:30 - 11:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
11:00 - 11:30	8	26102	0.001	8	26102	0.001	8	26102	0.002
11:30 - 12:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:00 - 12:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:30 - 13:00	8	26102	0.001	8	26102	0.000	8	26102	0.001
13:00 - 13:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
13:30 - 14:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
14:00 - 14:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
14:30 - 15:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
15:00 - 15:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
15:30 - 16:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
16:00 - 16:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
16:30 - 17:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
17:00 - 17:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
17:30 - 18:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
18:00 - 18:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
18:30 - 19:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
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:			0.003			0.001			0.004

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

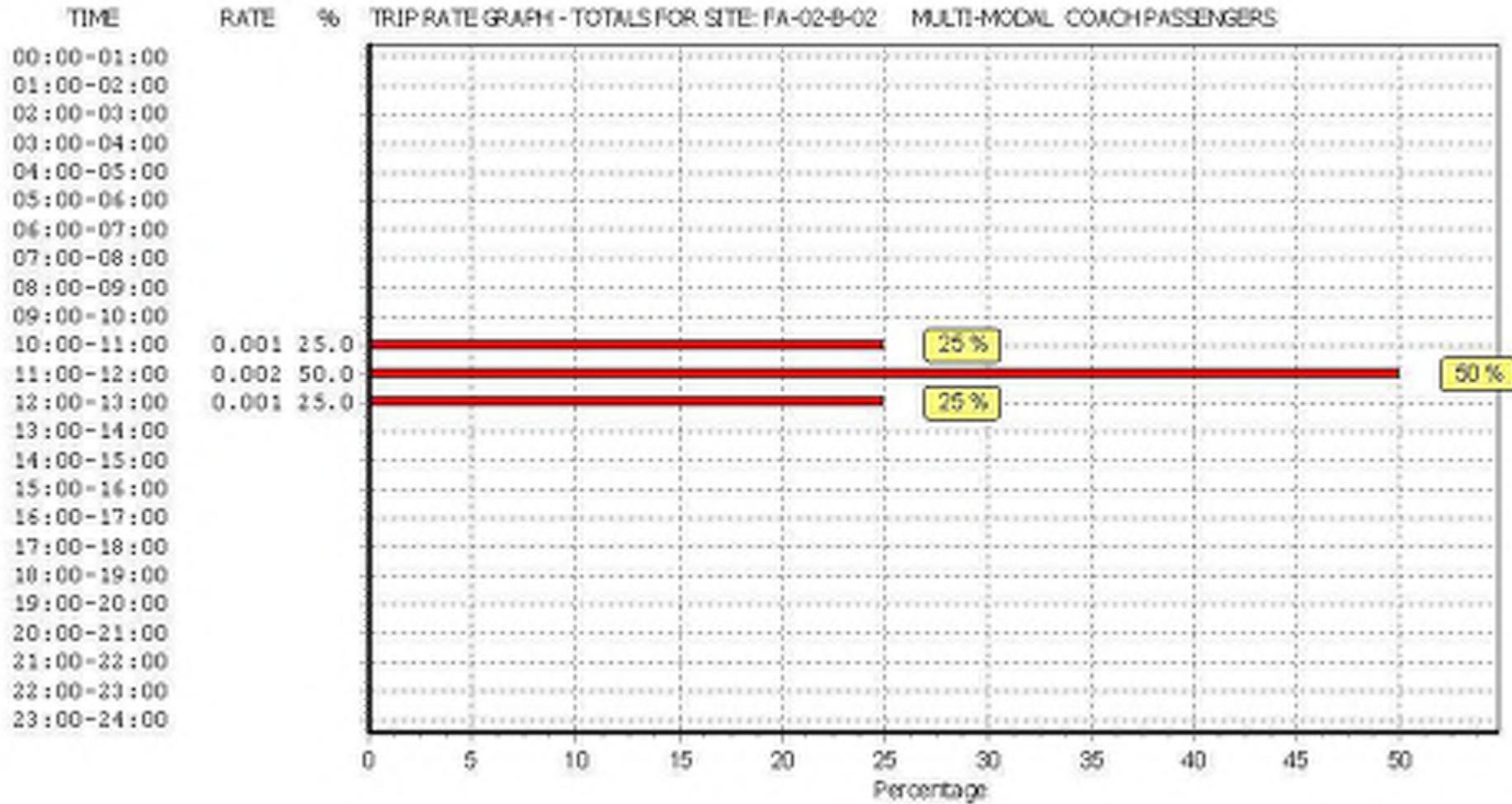
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL PUBLIC TRANSPORT USERS

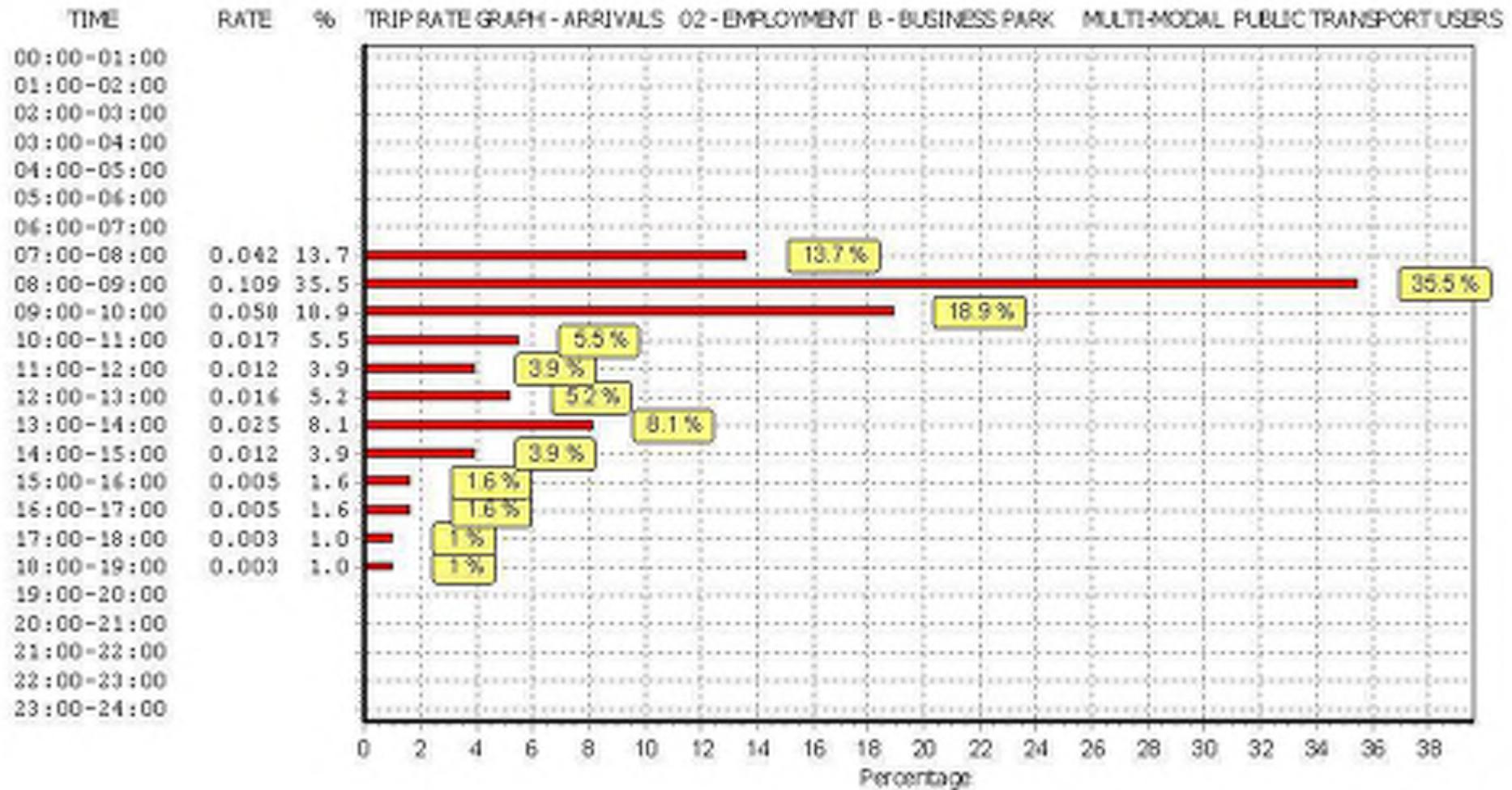
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

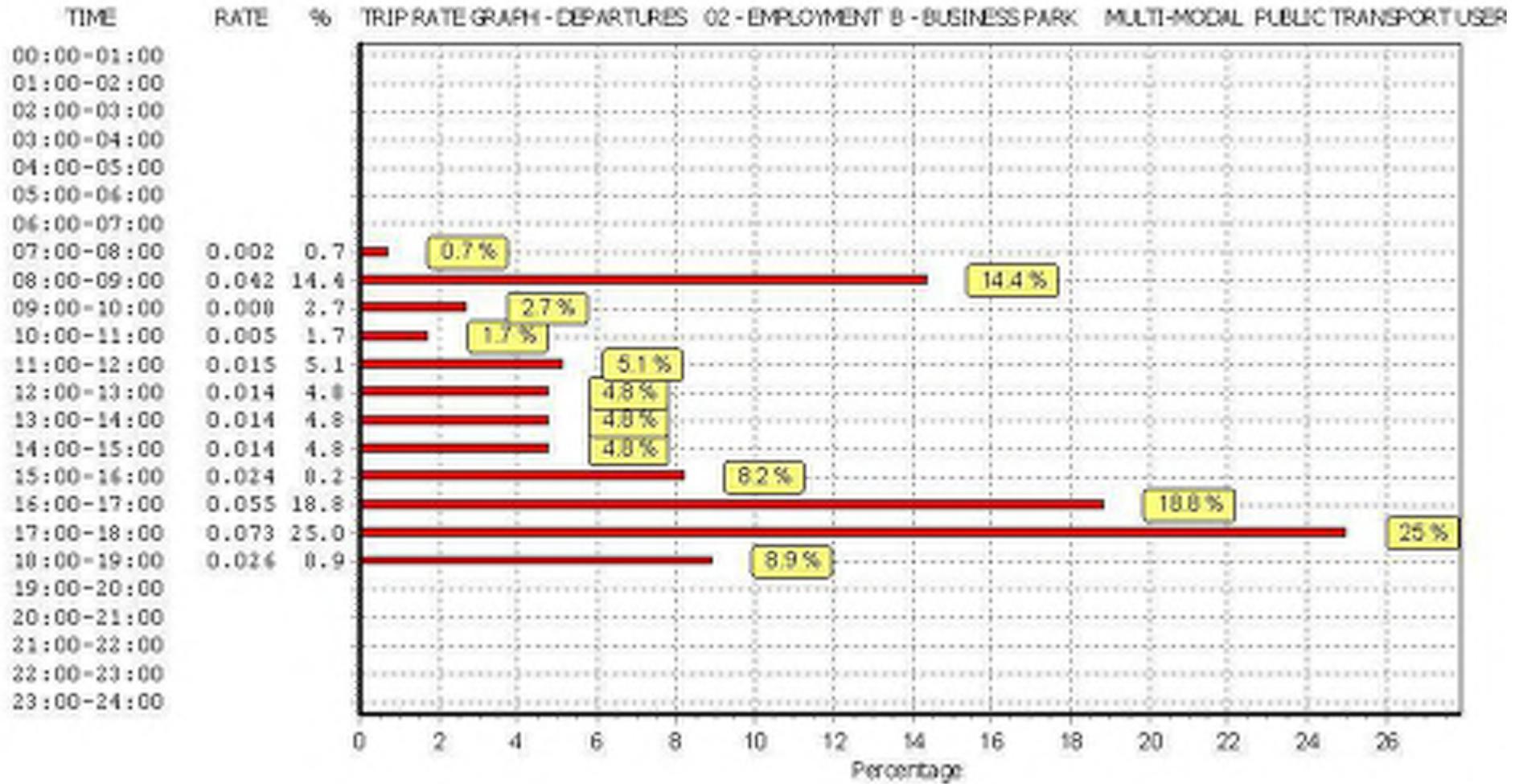
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.015	8	26102	0.001	8	26102	0.016
07:30 - 08:00	8	26102	0.027	8	26102	0.001	8	26102	0.028
08:00 - 08:30	8	26102	0.051	8	26102	0.034	8	26102	0.085
08:30 - 09:00	8	26102	0.058	8	26102	0.008	8	26102	0.066
09:00 - 09:30	8	26102	0.036	8	26102	0.005	8	26102	0.041
09:30 - 10:00	8	26102	0.022	8	26102	0.003	8	26102	0.025
10:00 - 10:30	8	26102	0.009	8	26102	0.003	8	26102	0.012
10:30 - 11:00	8	26102	0.008	8	26102	0.002	8	26102	0.010
11:00 - 11:30	8	26102	0.009	8	26102	0.004	8	26102	0.013
11:30 - 12:00	8	26102	0.003	8	26102	0.011	8	26102	0.014
12:00 - 12:30	8	26102	0.006	8	26102	0.007	8	26102	0.013
12:30 - 13:00	8	26102	0.010	8	26102	0.007	8	26102	0.017
13:00 - 13:30	8	26102	0.004	8	26102	0.008	8	26102	0.012
13:30 - 14:00	8	26102	0.021	8	26102	0.006	8	26102	0.027
14:00 - 14:30	8	26102	0.003	8	26102	0.006	8	26102	0.009
14:30 - 15:00	8	26102	0.009	8	26102	0.008	8	26102	0.017
15:00 - 15:30	8	26102	0.001	8	26102	0.015	8	26102	0.016
15:30 - 16:00	8	26102	0.004	8	26102	0.009	8	26102	0.013
16:00 - 16:30	8	26102	0.003	8	26102	0.026	8	26102	0.029
16:30 - 17:00	8	26102	0.002	8	26102	0.029	8	26102	0.031
17:00 - 17:30	8	26102	0.002	8	26102	0.034	8	26102	0.036
17:30 - 18:00	8	26102	0.001	8	26102	0.039	8	26102	0.040
18:00 - 18:30	8	26102	0.001	8	26102	0.013	8	26102	0.014
18:30 - 19:00	8	26102	0.002	8	26102	0.013	8	26102	0.015
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:			0.307			0.292			0.599

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

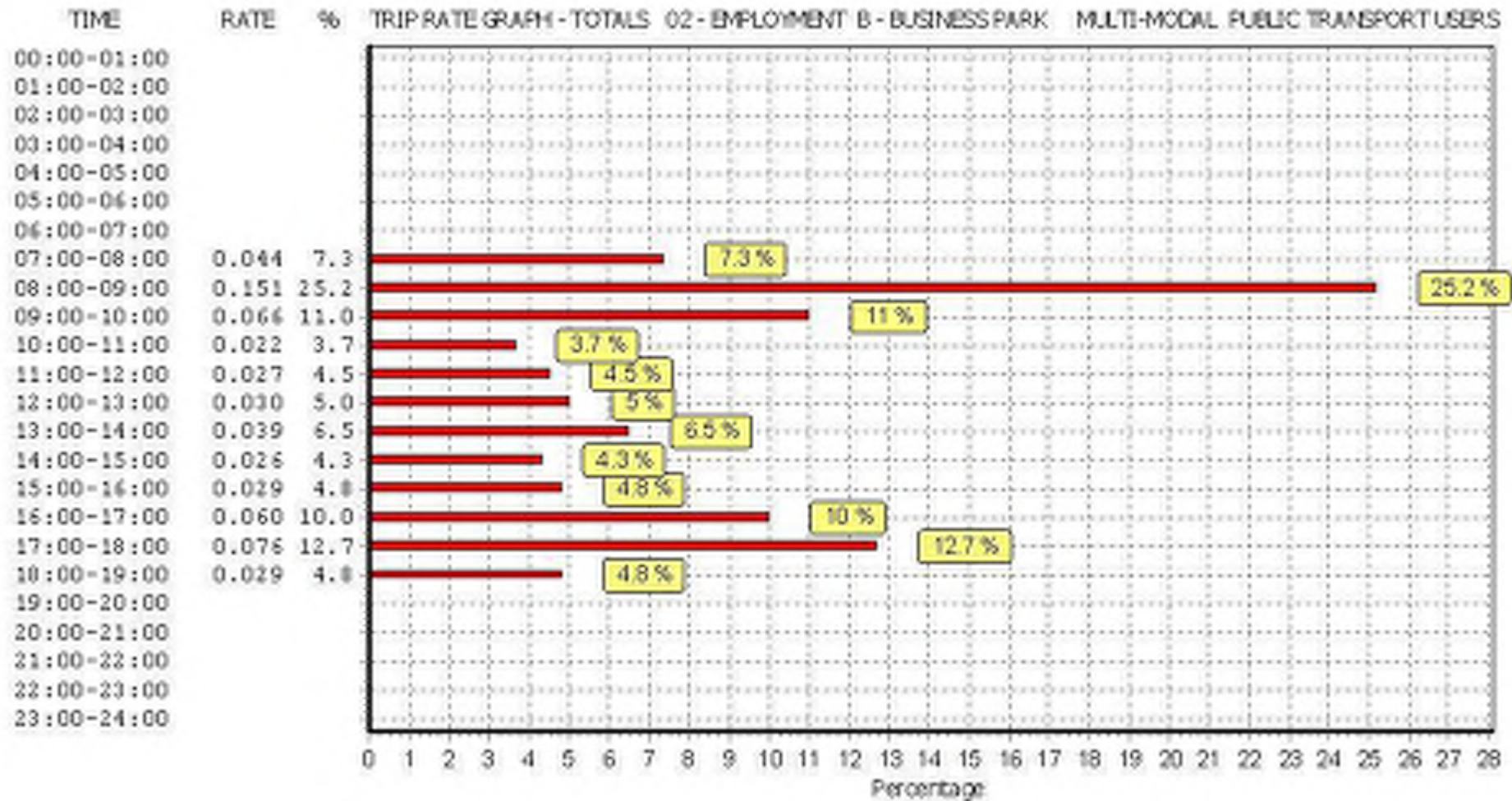
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL TOTAL PEOPLE

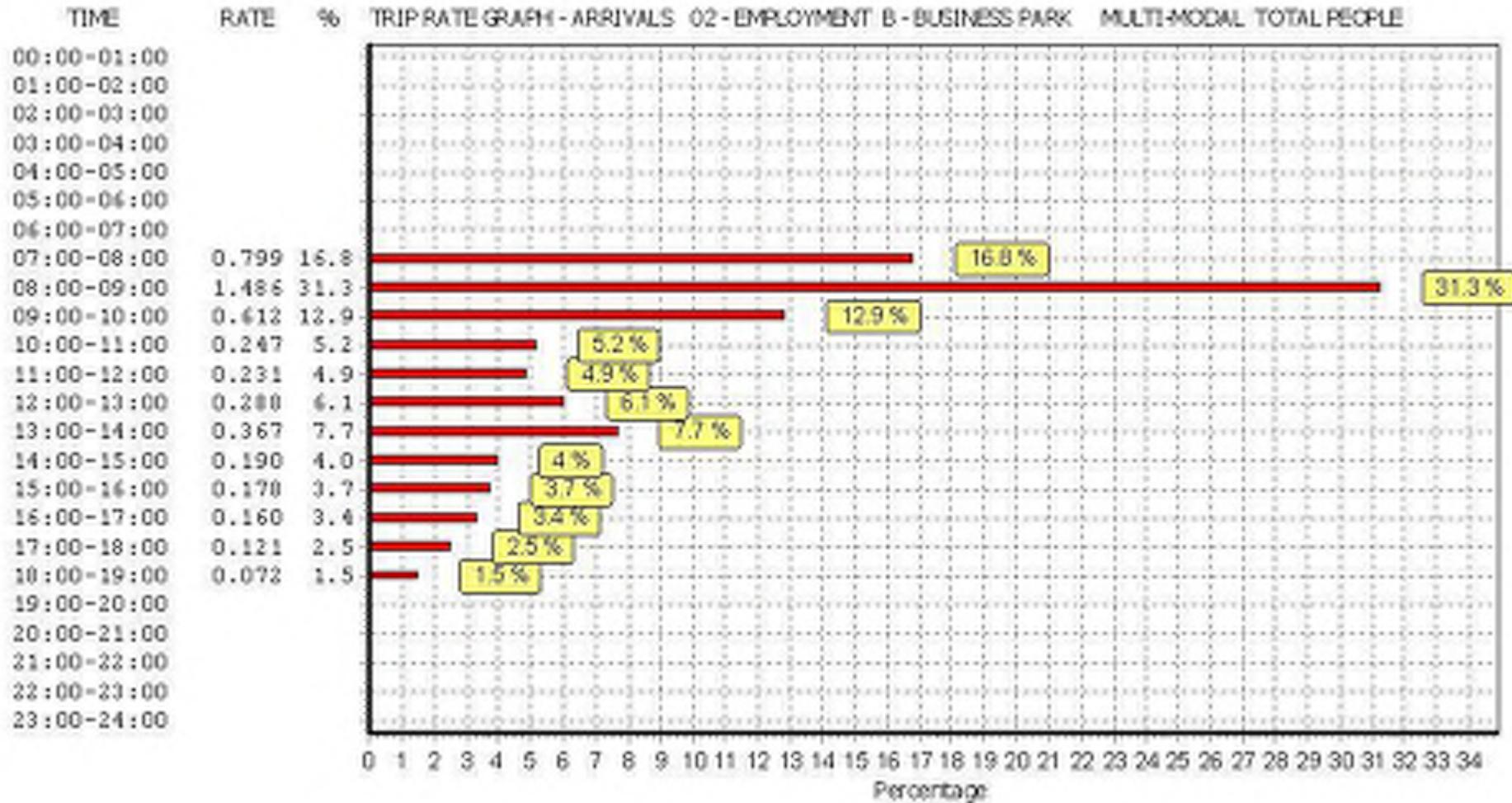
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

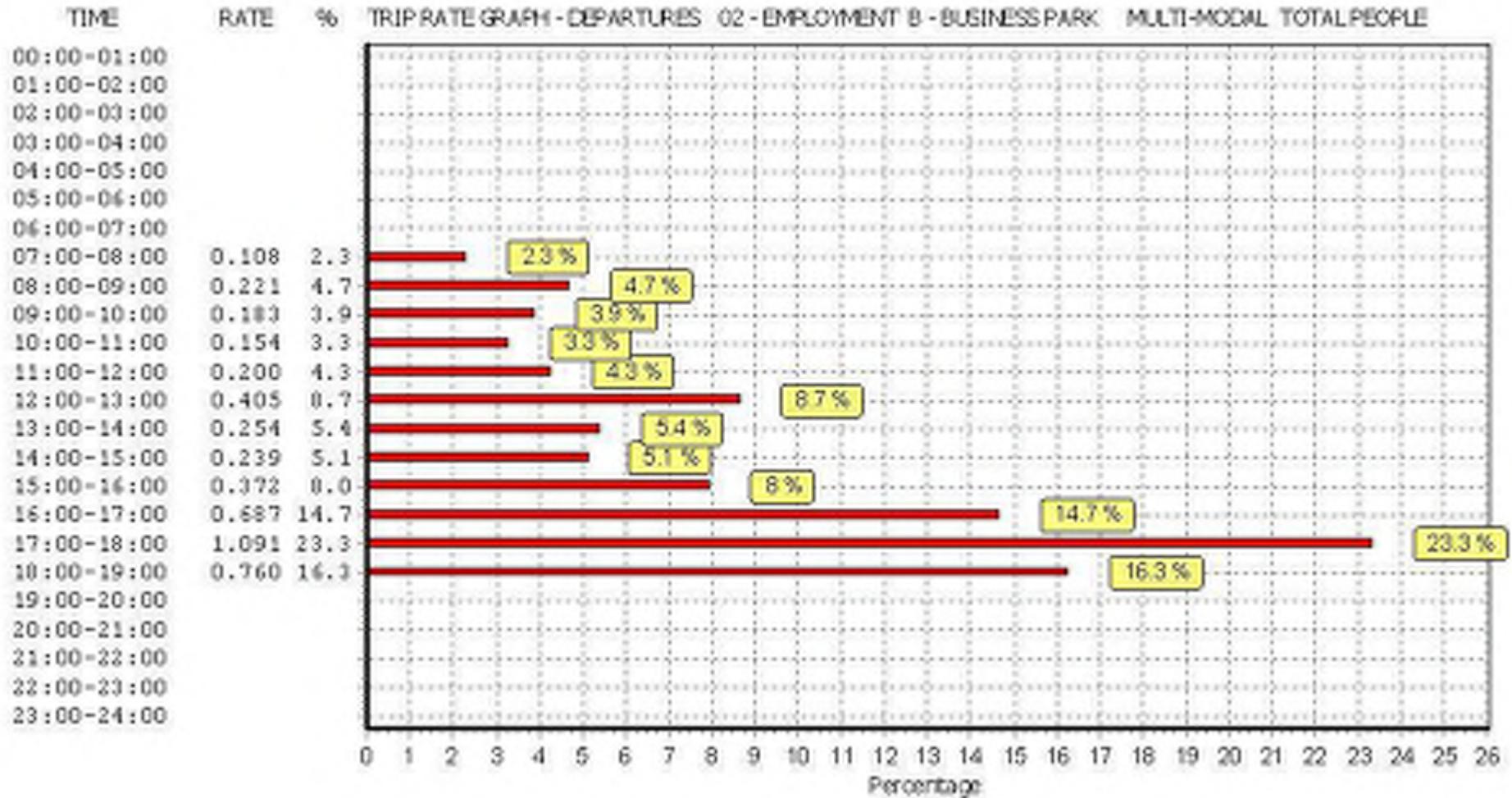
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.261	8	26102	0.042	8	26102	0.303
07:30 - 08:00	8	26102	0.538	8	26102	0.066	8	26102	0.604
08:00 - 08:30	8	26102	0.773	8	26102	0.134	8	26102	0.907
08:30 - 09:00	8	26102	0.713	8	26102	0.087	8	26102	0.800
09:00 - 09:30	8	26102	0.417	8	26102	0.091	8	26102	0.508
09:30 - 10:00	8	26102	0.195	8	26102	0.092	8	26102	0.287
10:00 - 10:30	8	26102	0.135	8	26102	0.084	8	26102	0.219
10:30 - 11:00	8	26102	0.112	8	26102	0.070	8	26102	0.182
11:00 - 11:30	8	26102	0.121	8	26102	0.091	8	26102	0.212
11:30 - 12:00	8	26102	0.110	8	26102	0.109	8	26102	0.219
12:00 - 12:30	8	26102	0.130	8	26102	0.219	8	26102	0.349
12:30 - 13:00	8	26102	0.158	8	26102	0.186	8	26102	0.344
13:00 - 13:30	8	26102	0.192	8	26102	0.148	8	26102	0.340
13:30 - 14:00	8	26102	0.175	8	26102	0.106	8	26102	0.281
14:00 - 14:30	8	26102	0.104	8	26102	0.113	8	26102	0.217
14:30 - 15:00	8	26102	0.086	8	26102	0.126	8	26102	0.212
15:00 - 15:30	8	26102	0.091	8	26102	0.183	8	26102	0.274
15:30 - 16:00	8	26102	0.087	8	26102	0.189	8	26102	0.276
16:00 - 16:30	8	26102	0.086	8	26102	0.312	8	26102	0.398
16:30 - 17:00	8	26102	0.074	8	26102	0.375	8	26102	0.449
17:00 - 17:30	8	26102	0.070	8	26102	0.568	8	26102	0.638
17:30 - 18:00	8	26102	0.051	8	26102	0.523	8	26102	0.574
18:00 - 18:30	8	26102	0.042	8	26102	0.418	8	26102	0.460
18:30 - 19:00	8	26102	0.030	8	26102	0.342	8	26102	0.372
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:			4.751			4.674			9.425

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

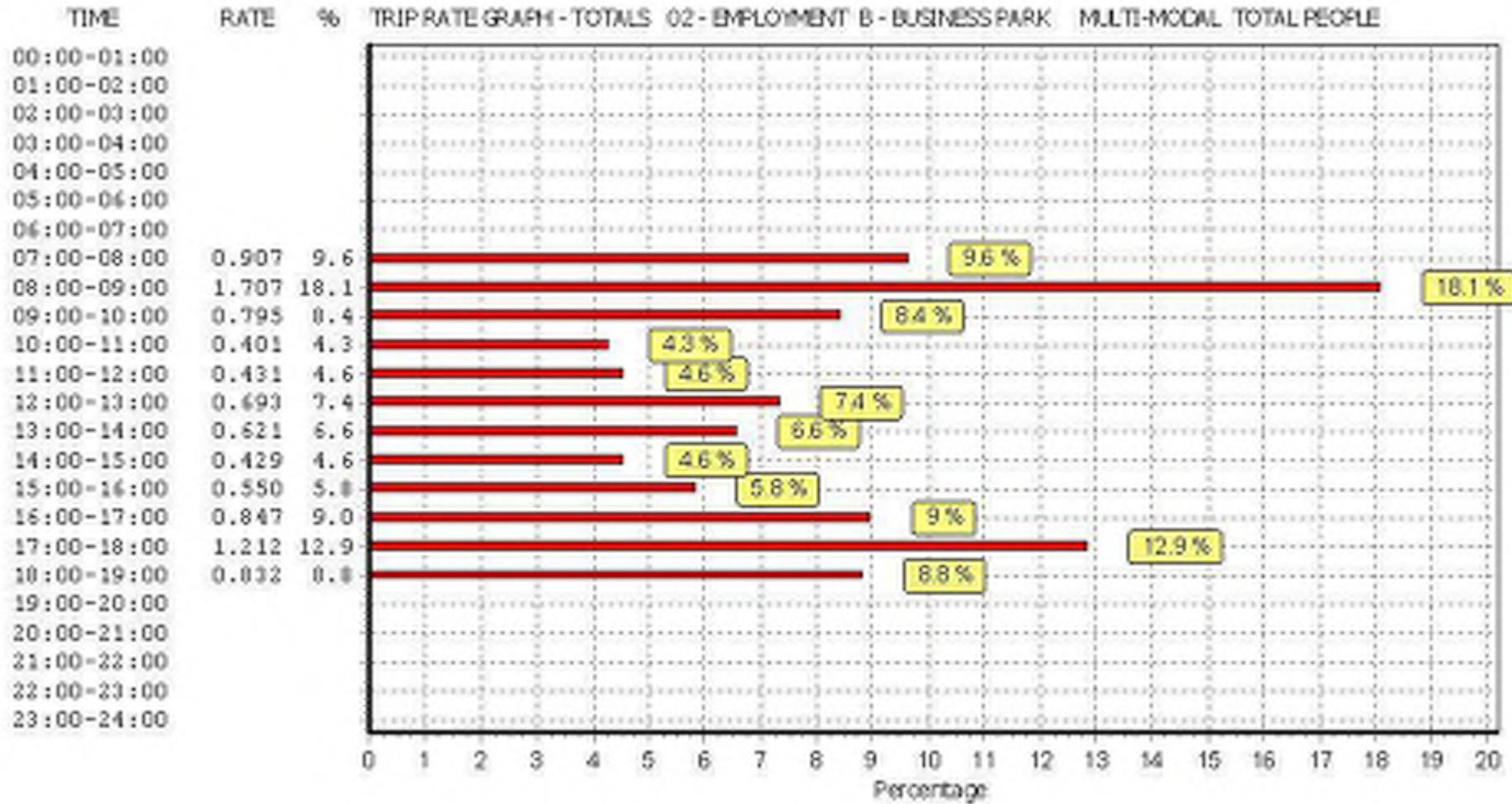
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL CARS

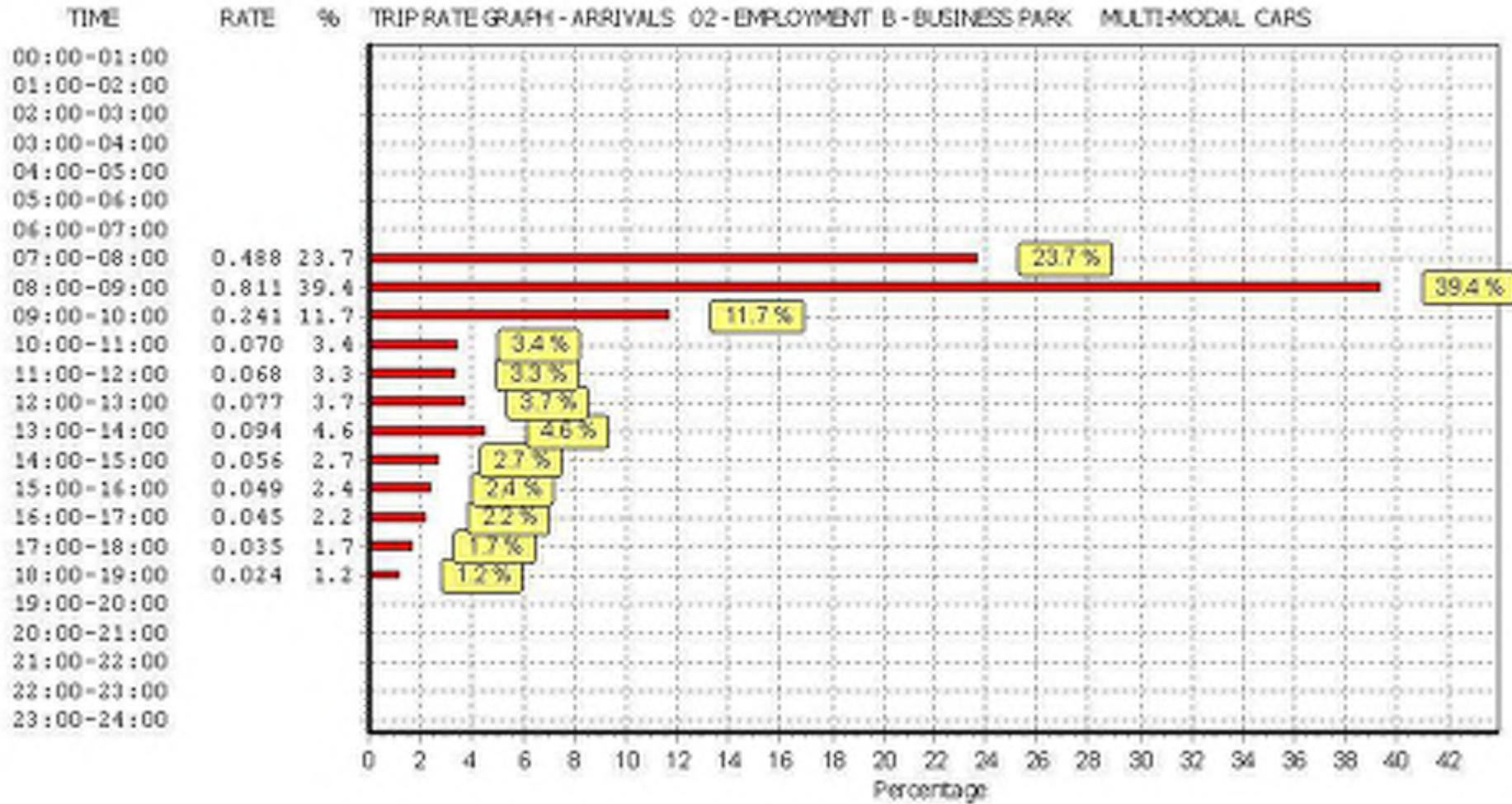
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

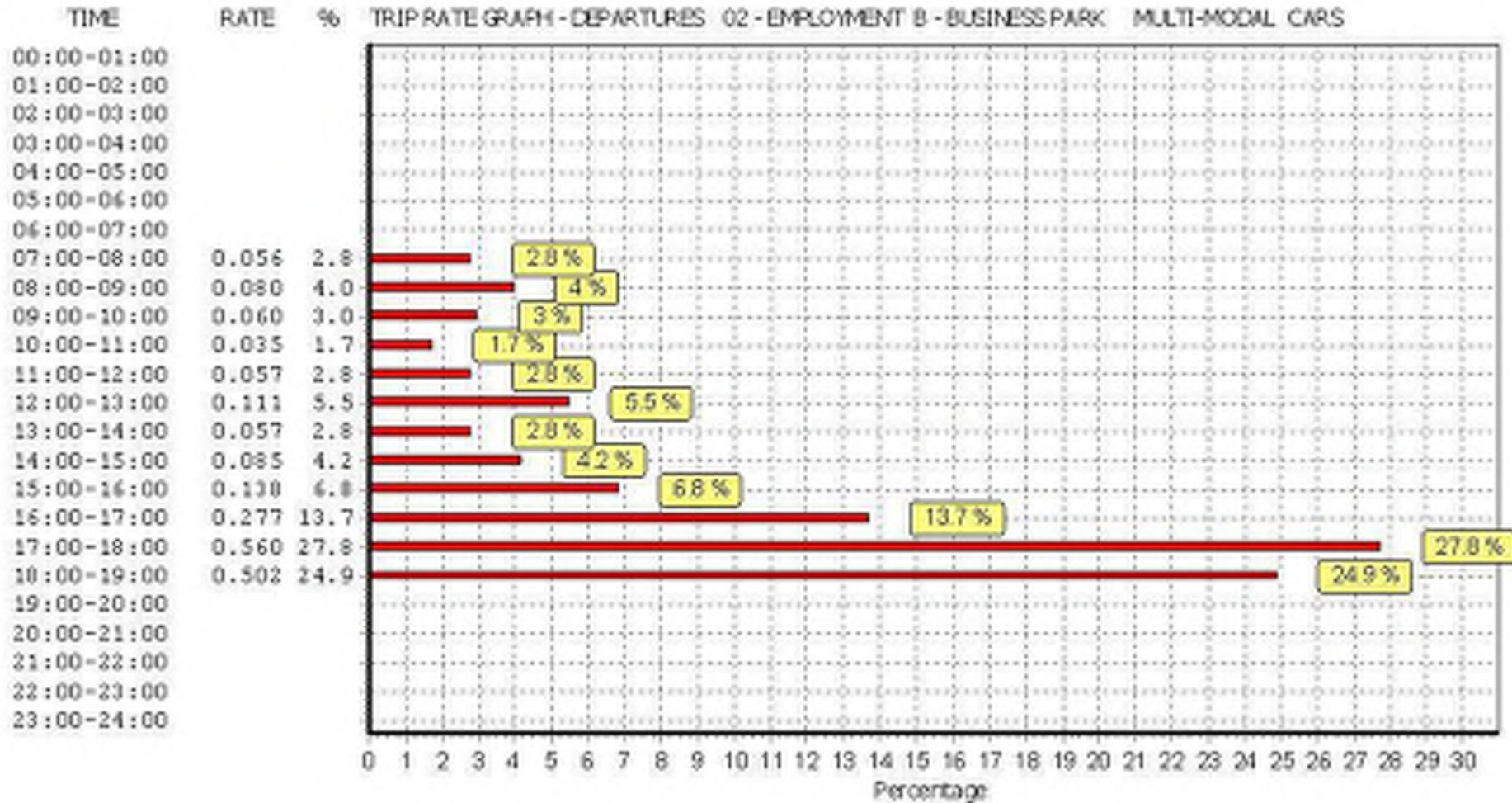
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.155	8	26102	0.020	8	26102	0.175
07:30 - 08:00	8	26102	0.333	8	26102	0.036	8	26102	0.369
08:00 - 08:30	8	26102	0.463	8	26102	0.046	8	26102	0.509
08:30 - 09:00	8	26102	0.348	8	26102	0.034	8	26102	0.382
09:00 - 09:30	8	26102	0.189	8	26102	0.031	8	26102	0.220
09:30 - 10:00	8	26102	0.052	8	26102	0.029	8	26102	0.081
10:00 - 10:30	8	26102	0.040	8	26102	0.018	8	26102	0.058
10:30 - 11:00	8	26102	0.030	8	26102	0.017	8	26102	0.047
11:00 - 11:30	8	26102	0.031	8	26102	0.031	8	26102	0.062
11:30 - 12:00	8	26102	0.037	8	26102	0.026	8	26102	0.063
12:00 - 12:30	8	26102	0.035	8	26102	0.059	8	26102	0.094
12:30 - 13:00	8	26102	0.042	8	26102	0.052	8	26102	0.094
13:00 - 13:30	8	26102	0.055	8	26102	0.029	8	26102	0.084
13:30 - 14:00	8	26102	0.039	8	26102	0.028	8	26102	0.067
14:00 - 14:30	8	26102	0.031	8	26102	0.040	8	26102	0.071
14:30 - 15:00	8	26102	0.025	8	26102	0.045	8	26102	0.070
15:00 - 15:30	8	26102	0.024	8	26102	0.063	8	26102	0.087
15:30 - 16:00	8	26102	0.025	8	26102	0.075	8	26102	0.100
16:00 - 16:30	8	26102	0.023	8	26102	0.119	8	26102	0.142
16:30 - 17:00	8	26102	0.022	8	26102	0.158	8	26102	0.180
17:00 - 17:30	8	26102	0.019	8	26102	0.274	8	26102	0.293
17:30 - 18:00	8	26102	0.016	8	26102	0.286	8	26102	0.302
18:00 - 18:30	8	26102	0.012	8	26102	0.271	8	26102	0.283
18:30 - 19:00	8	26102	0.012	8	26102	0.231	8	26102	0.243
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:			2.058			2.018			4.076

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

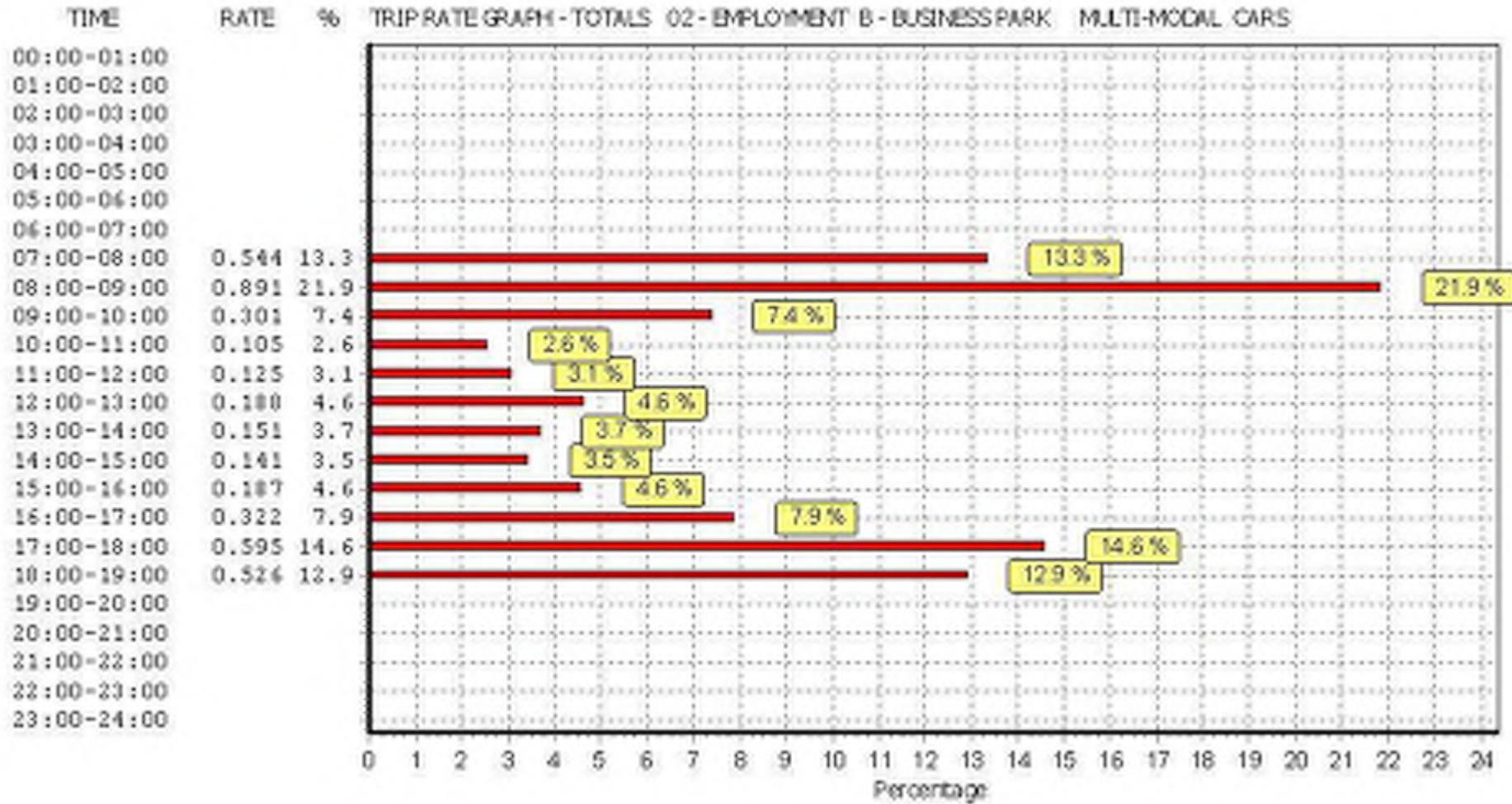
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL LGVS

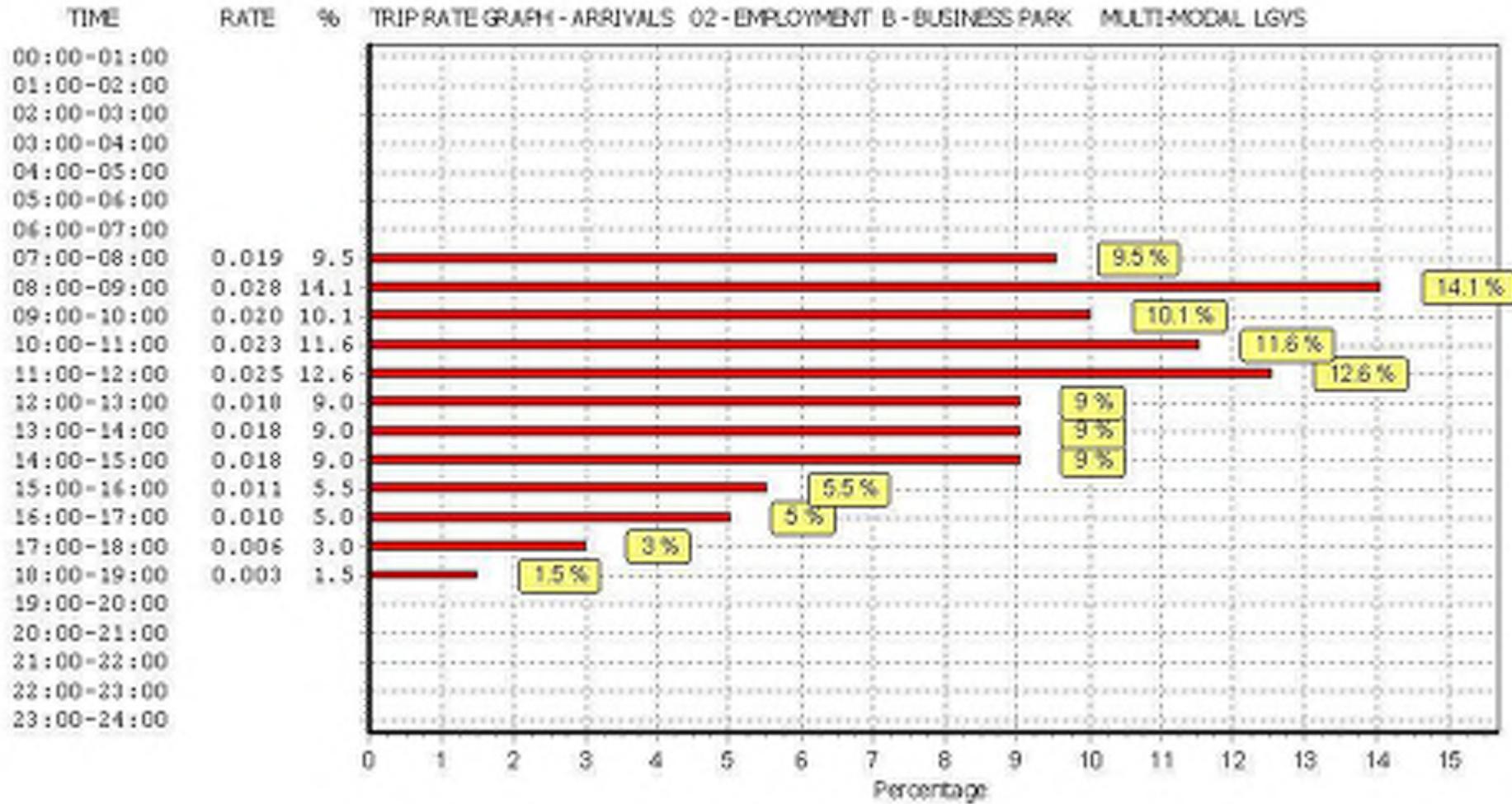
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

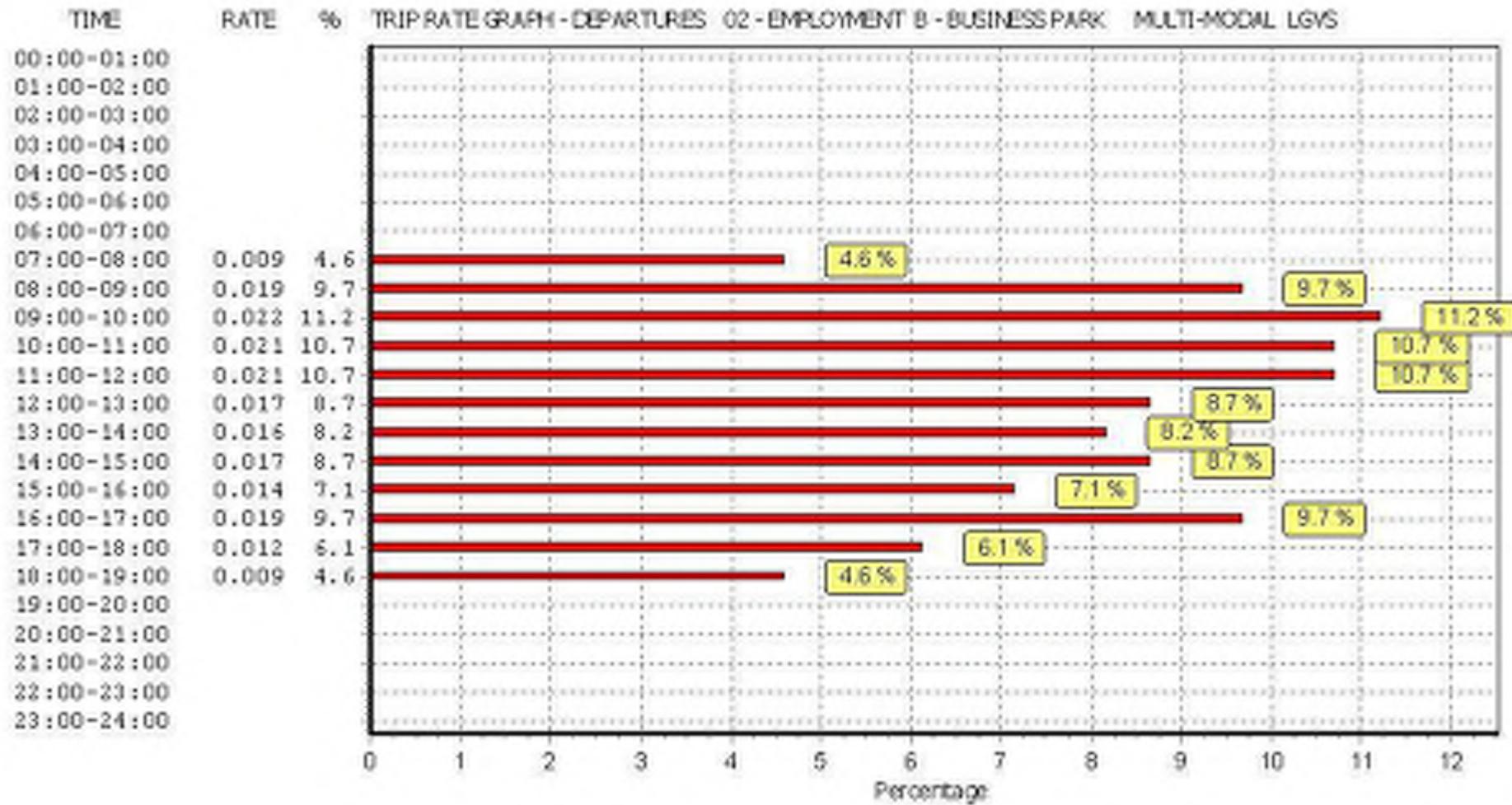
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.009	8	26102	0.005	8	26102	0.014
07:30 - 08:00	8	26102	0.010	8	26102	0.004	8	26102	0.014
08:00 - 08:30	8	26102	0.014	8	26102	0.009	8	26102	0.023
08:30 - 09:00	8	26102	0.014	8	26102	0.010	8	26102	0.024
09:00 - 09:30	8	26102	0.007	8	26102	0.010	8	26102	0.017
09:30 - 10:00	8	26102	0.013	8	26102	0.012	8	26102	0.025
10:00 - 10:30	8	26102	0.012	8	26102	0.011	8	26102	0.023
10:30 - 11:00	8	26102	0.011	8	26102	0.010	8	26102	0.021
11:00 - 11:30	8	26102	0.014	8	26102	0.011	8	26102	0.025
11:30 - 12:00	8	26102	0.011	8	26102	0.010	8	26102	0.021
12:00 - 12:30	8	26102	0.010	8	26102	0.010	8	26102	0.020
12:30 - 13:00	8	26102	0.008	8	26102	0.007	8	26102	0.015
13:00 - 13:30	8	26102	0.009	8	26102	0.004	8	26102	0.013
13:30 - 14:00	8	26102	0.009	8	26102	0.012	8	26102	0.021
14:00 - 14:30	8	26102	0.007	8	26102	0.006	8	26102	0.013
14:30 - 15:00	8	26102	0.011	8	26102	0.011	8	26102	0.022
15:00 - 15:30	8	26102	0.005	8	26102	0.008	8	26102	0.013
15:30 - 16:00	8	26102	0.006	8	26102	0.006	8	26102	0.012
16:00 - 16:30	8	26102	0.006	8	26102	0.012	8	26102	0.018
16:30 - 17:00	8	26102	0.004	8	26102	0.007	8	26102	0.011
17:00 - 17:30	8	26102	0.003	8	26102	0.005	8	26102	0.008
17:30 - 18:00	8	26102	0.003	8	26102	0.007	8	26102	0.010
18:00 - 18:30	8	26102	0.002	8	26102	0.004	8	26102	0.006
18:30 - 19:00	8	26102	0.001	8	26102	0.005	8	26102	0.006
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:			0.199			0.196			0.395

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

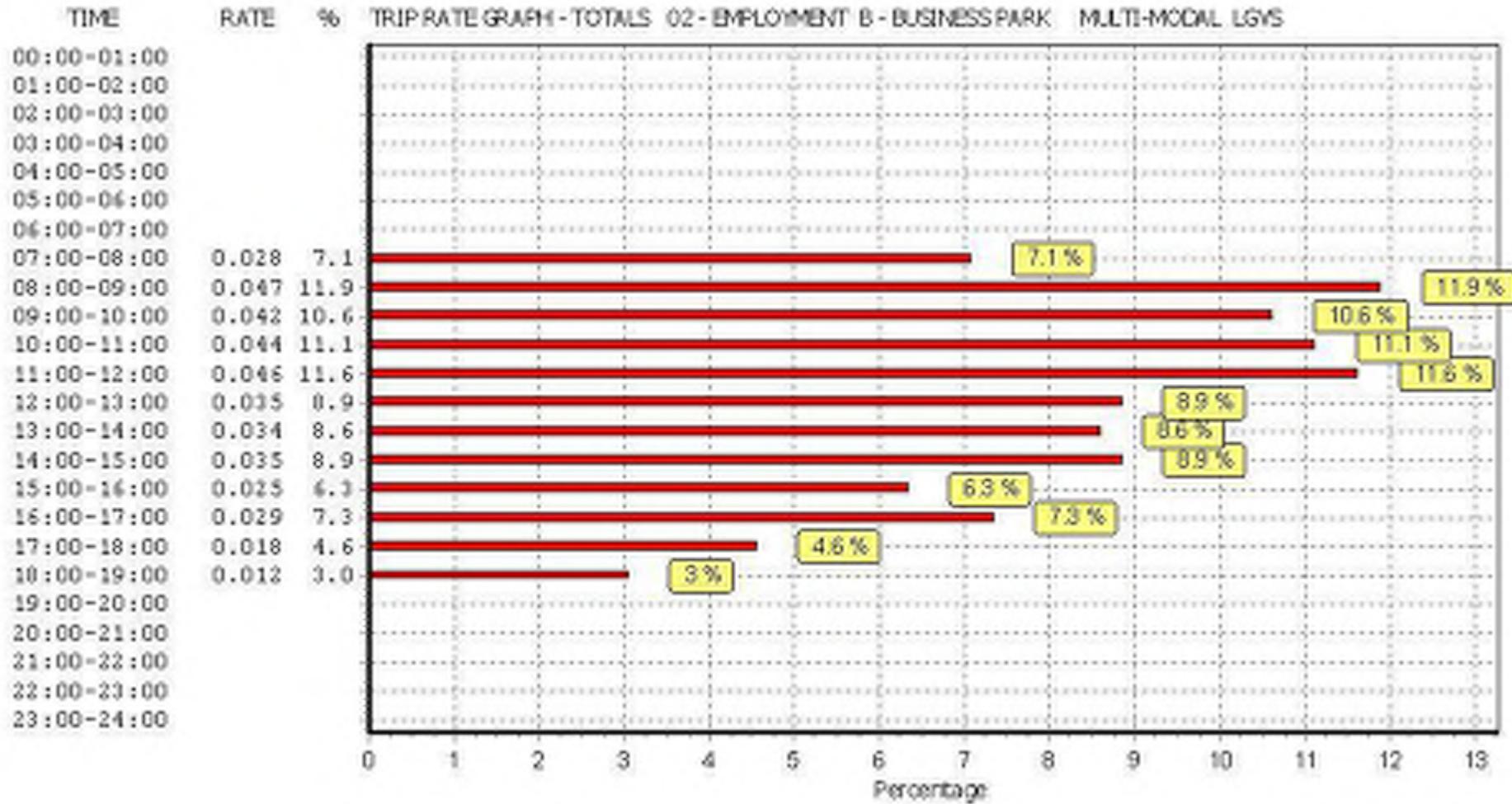
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL MOTOR CYCLES

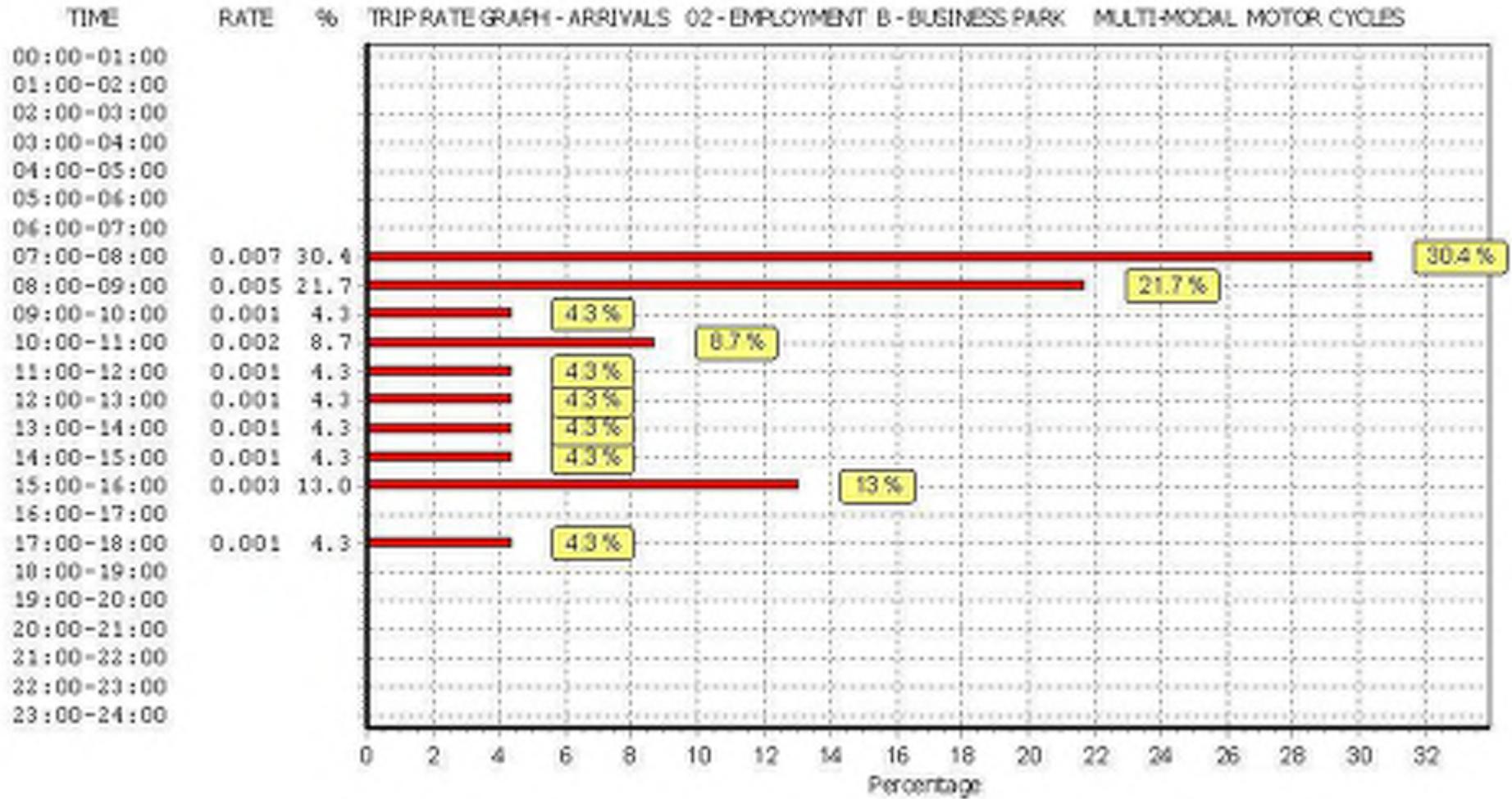
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

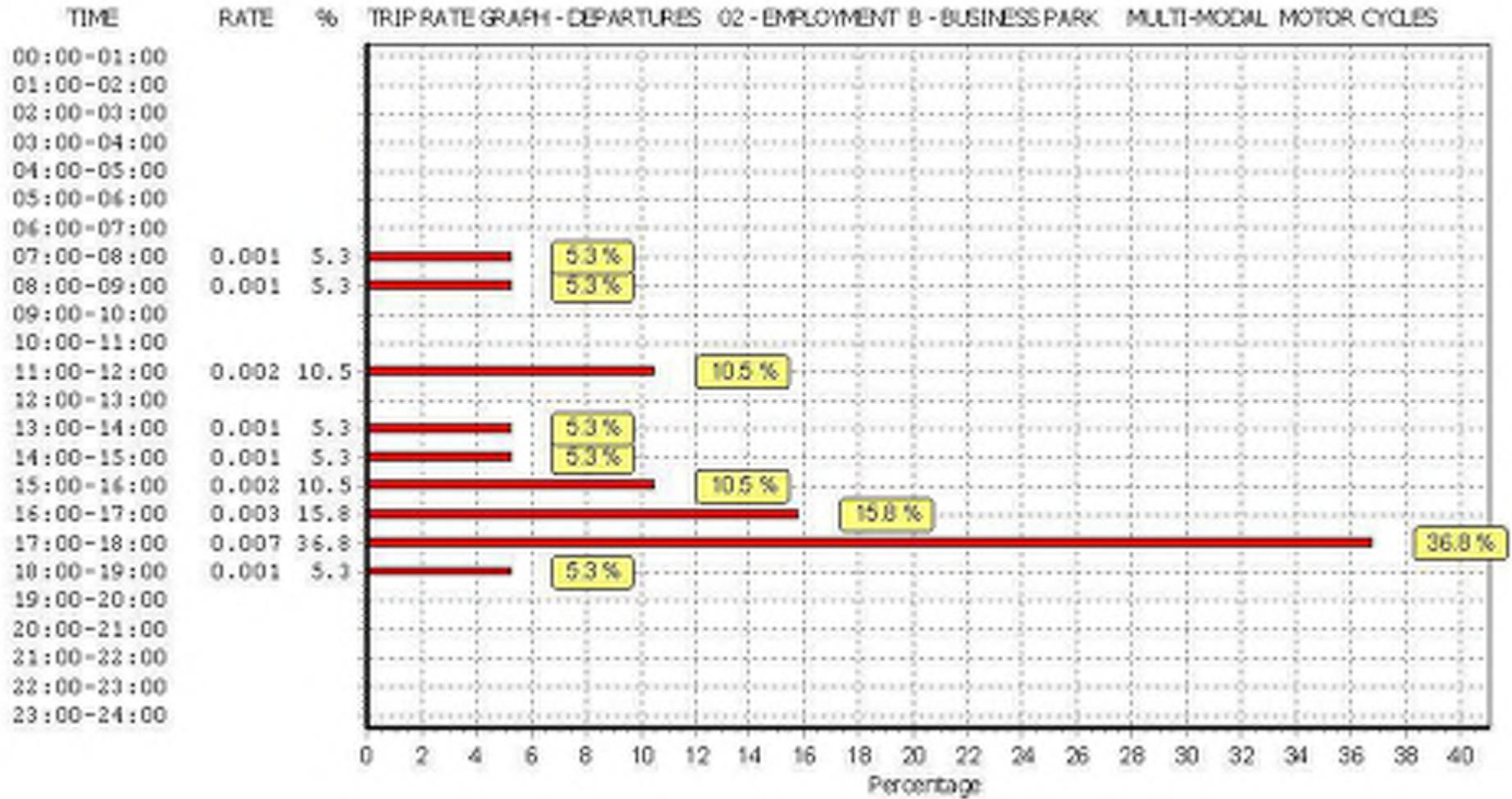
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.003	8	26102	0.000	8	26102	0.003
07:30 - 08:00	8	26102	0.004	8	26102	0.001	8	26102	0.005
08:00 - 08:30	8	26102	0.004	8	26102	0.001	8	26102	0.005
08:30 - 09:00	8	26102	0.001	8	26102	0.000	8	26102	0.001
09:00 - 09:30	8	26102	0.001	8	26102	0.000	8	26102	0.001
09:30 - 10:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
10:00 - 10:30	8	26102	0.002	8	26102	0.000	8	26102	0.002
10:30 - 11:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
11:00 - 11:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
11:30 - 12:00	8	26102	0.001	8	26102	0.002	8	26102	0.003
12:00 - 12:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:30 - 13:00	8	26102	0.001	8	26102	0.000	8	26102	0.001
13:00 - 13:30	8	26102	0.001	8	26102	0.000	8	26102	0.001
13:30 - 14:00	8	26102	0.000	8	26102	0.001	8	26102	0.001
14:00 - 14:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
14:30 - 15:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
15:00 - 15:30	8	26102	0.002	8	26102	0.001	8	26102	0.003
15:30 - 16:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
16:00 - 16:30	8	26102	0.000	8	26102	0.002	8	26102	0.002
16:30 - 17:00	8	26102	0.000	8	26102	0.001	8	26102	0.001
17:00 - 17:30	8	26102	0.001	8	26102	0.005	8	26102	0.006
17:30 - 18:00	8	26102	0.000	8	26102	0.002	8	26102	0.002
18:00 - 18:30	8	26102	0.000	8	26102	0.001	8	26102	0.001
18:30 - 19:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
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:			0.023			0.019			0.042

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

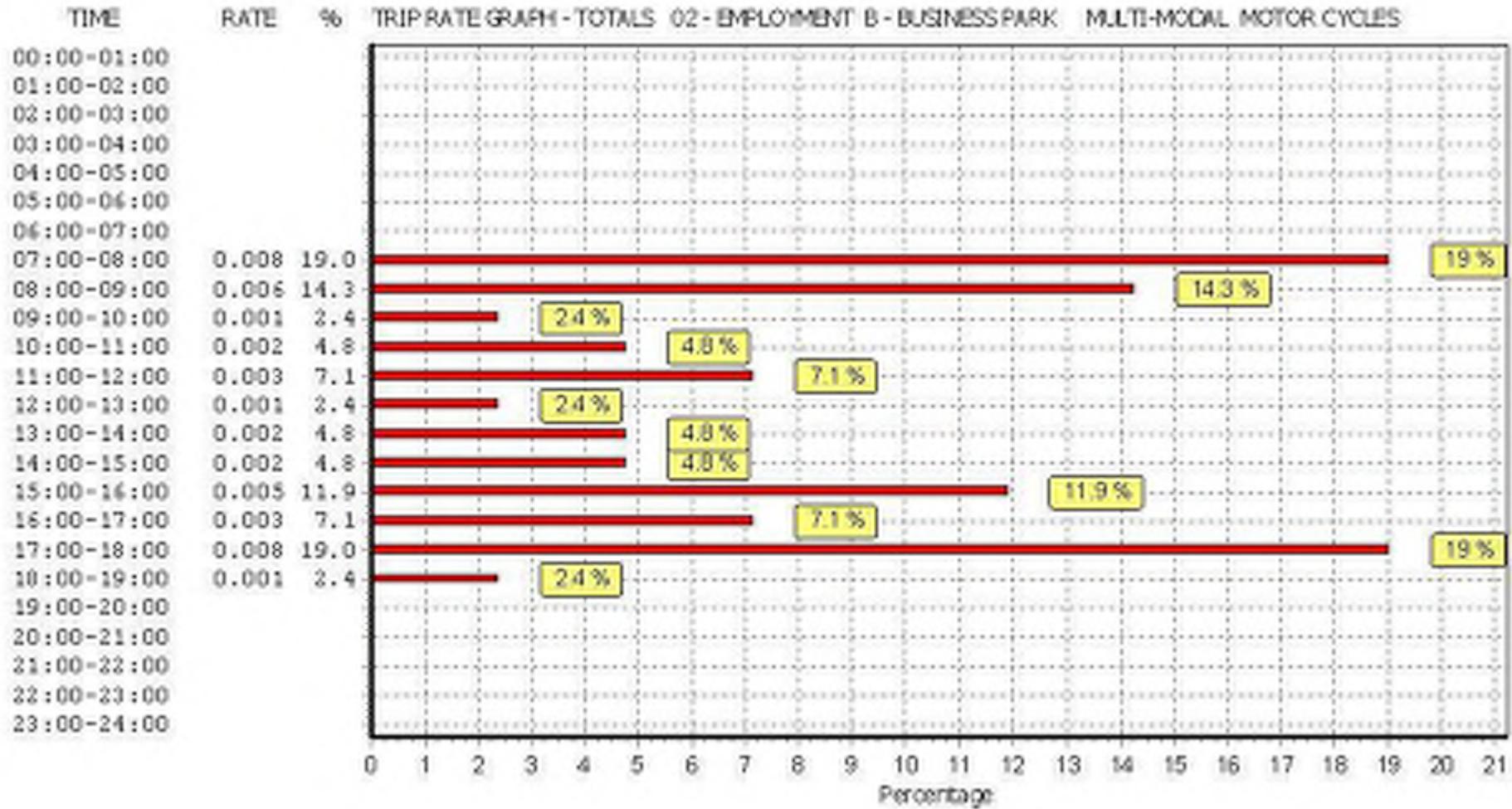
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL Servicing Vehicles

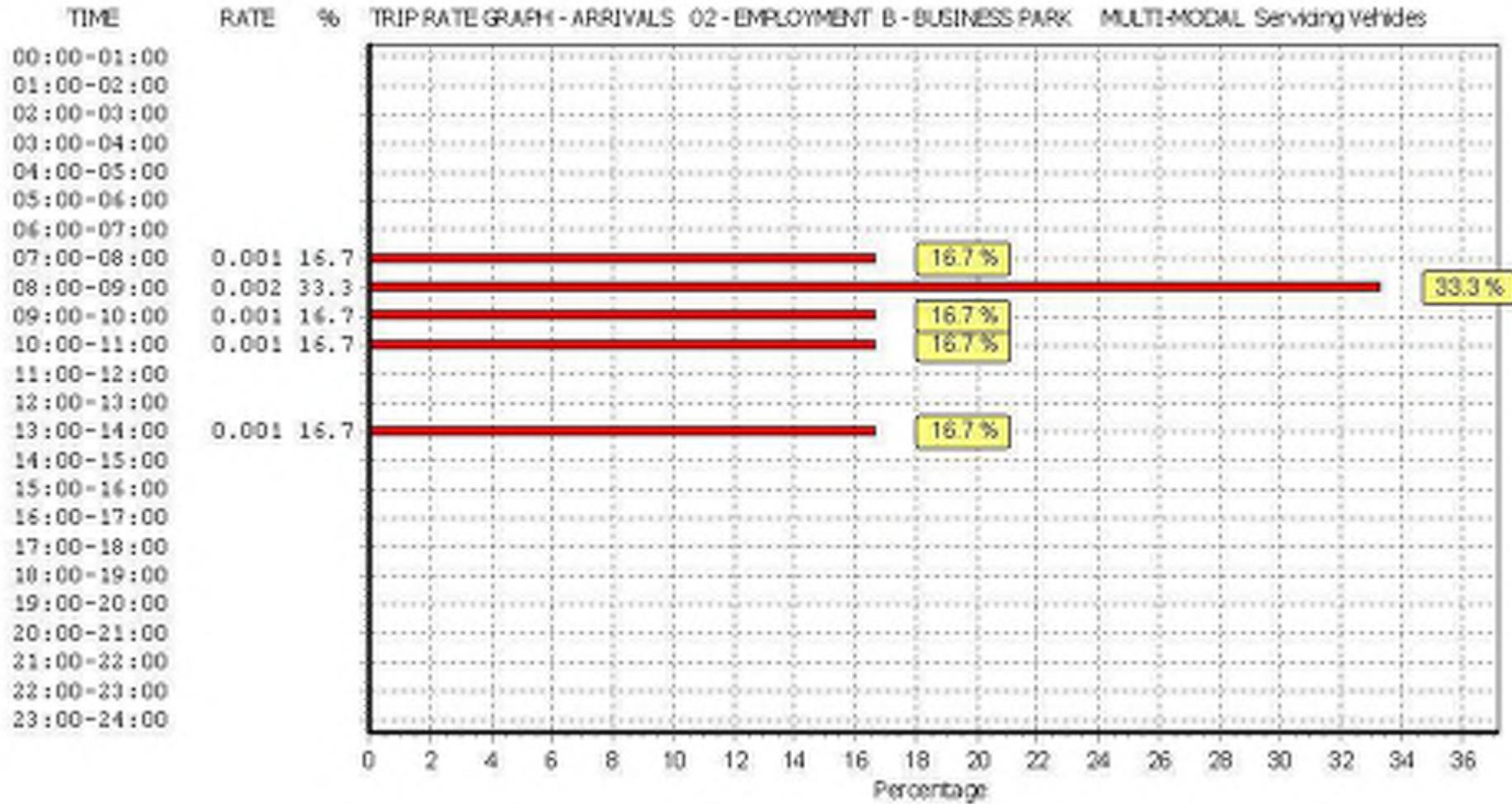
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

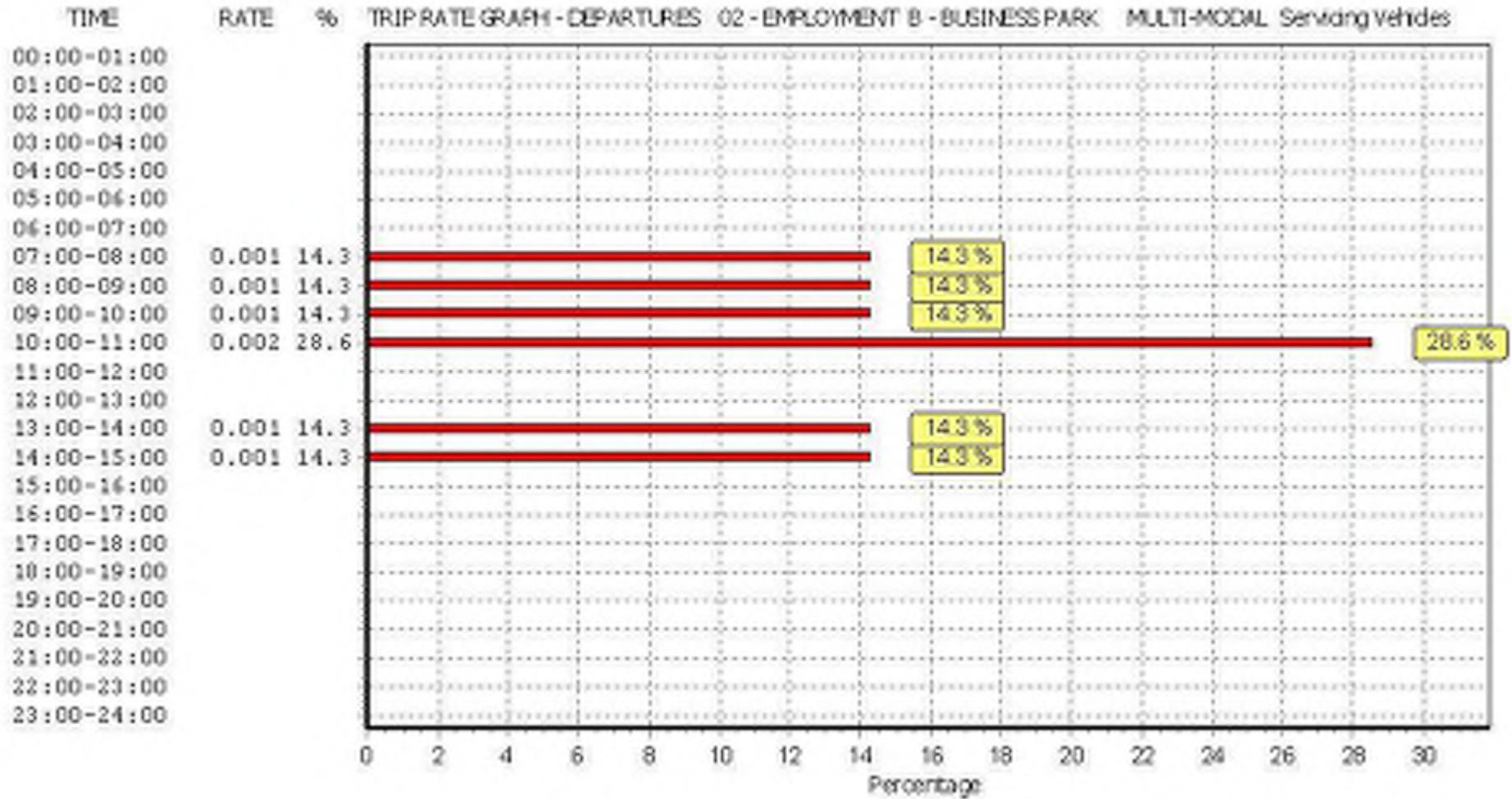
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
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	8	26102	0.001	8	26102	0.001	8	26102	0.002
07:30 - 08:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
08:00 - 08:30	8	26102	0.001	8	26102	0.000	8	26102	0.001
08:30 - 09:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
09:00 - 09:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
09:30 - 10:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
10:00 - 10:30	8	26102	0.000	8	26102	0.001	8	26102	0.001
10:30 - 11:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
11:00 - 11:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
11:30 - 12:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:00 - 12:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
12:30 - 13:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
13:00 - 13:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
13:30 - 14:00	8	26102	0.001	8	26102	0.001	8	26102	0.002
14:00 - 14:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
14:30 - 15:00	8	26102	0.000	8	26102	0.001	8	26102	0.001
15:00 - 15:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
15:30 - 16:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
16:00 - 16:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
16:30 - 17:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
17:00 - 17:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
17:30 - 18:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
18:00 - 18:30	8	26102	0.000	8	26102	0.000	8	26102	0.000
18:30 - 19:00	8	26102	0.000	8	26102	0.000	8	26102	0.000
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:			0.006			0.007			0.013

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

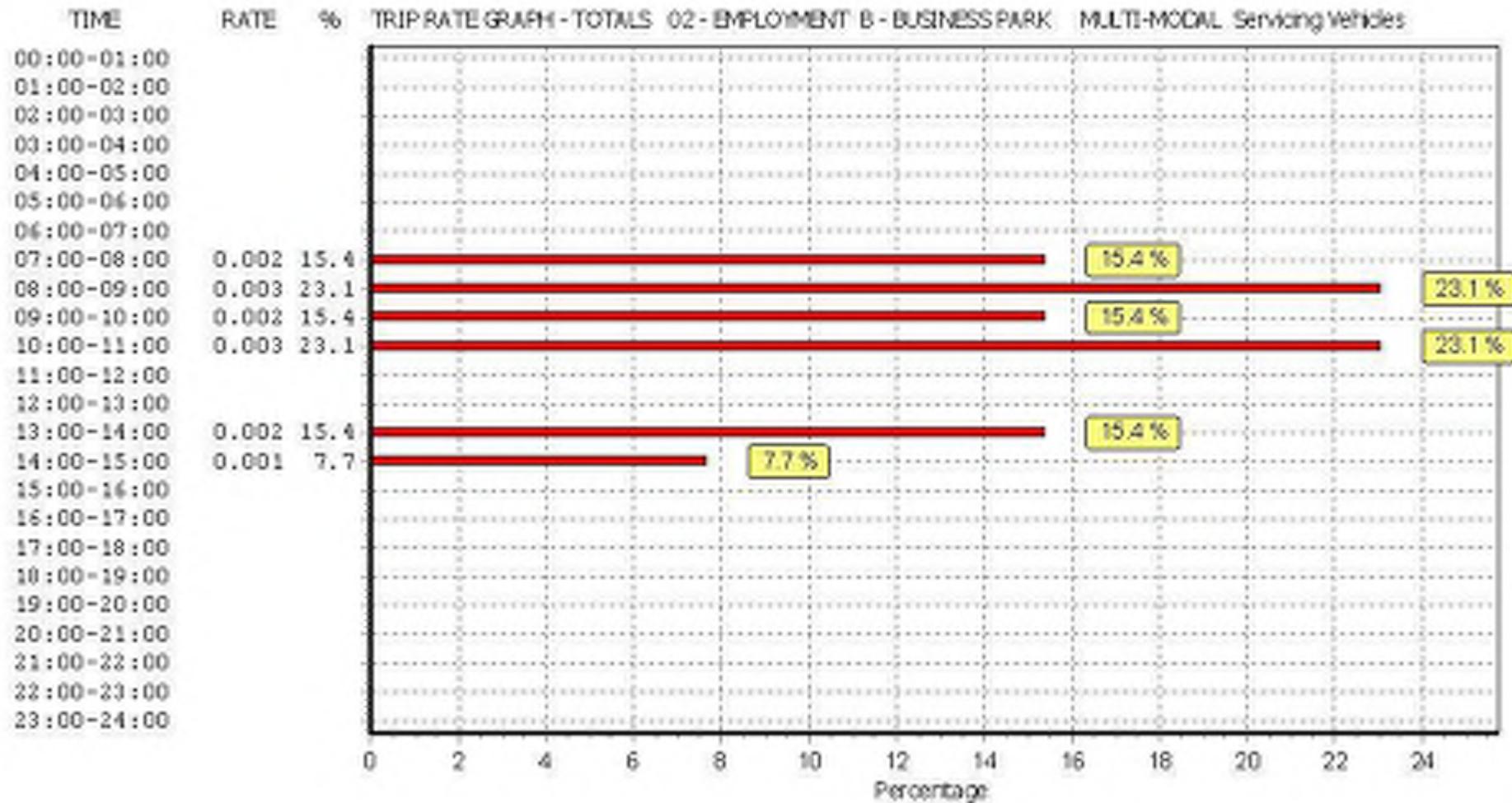
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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



Appendix E

TRICS HOTEL TRIP RATES

Calculation Reference: AUDIT-705103-190304-0336

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	BU BUCKINGHAMSHIRE	1 days
03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
10	WALES	
	WR WREXHAM	1 days
11	SCOTLAND	
	AG ANGUS	1 days

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

Secondary Filtering selection:

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

Parameter: Number of bedrooms
 Actual Range: 4 to 139 (units:)
 Range Selected by User: 4 to 213 (units:)

Parking Spaces Range: Selected: 0 to 185 Actual: 0 to 185

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 26/09/16

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
Wednesday	2 days
Thursday	2 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:

Edge of Town	4
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
Residential Zone	1
Out of Town	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.

Secondary Filtering selection:

Use Class:

C1 5 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
5,001 to 10,000	2 days
10,001 to 15,000	1 days
100,001 or More	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
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

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 5 days

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

PTAL Rating:

No PTAL Present 5 days

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

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

MULTI-MODAL 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	5	82	0.105	5	82	0.247	5	82	0.352
08:00 - 09:00	5	82	0.174	5	82	0.311	5	82	0.485
09:00 - 10:00	5	82	0.267	5	82	0.144	5	82	0.411
10:00 - 11:00	5	82	0.166	5	82	0.156	5	82	0.322
11:00 - 12:00	5	82	0.105	5	82	0.188	5	82	0.293
12:00 - 13:00	5	82	0.147	5	82	0.110	5	82	0.257
13:00 - 14:00	5	82	0.193	5	82	0.196	5	82	0.389
14:00 - 15:00	5	82	0.132	5	82	0.164	5	82	0.296
15:00 - 16:00	5	82	0.149	5	82	0.259	5	82	0.408
16:00 - 17:00	5	82	0.200	5	82	0.188	5	82	0.388
17:00 - 18:00	5	82	0.293	5	82	0.161	5	82	0.454
18:00 - 19:00	5	82	0.254	5	82	0.176	5	82	0.430
19:00 - 20:00	5	82	0.247	5	82	0.156	5	82	0.403
20:00 - 21:00	5	82	0.130	5	82	0.103	5	82	0.233
21:00 - 22:00	5	82	0.061	5	82	0.125	5	82	0.186
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.623			2.684			5.307

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.

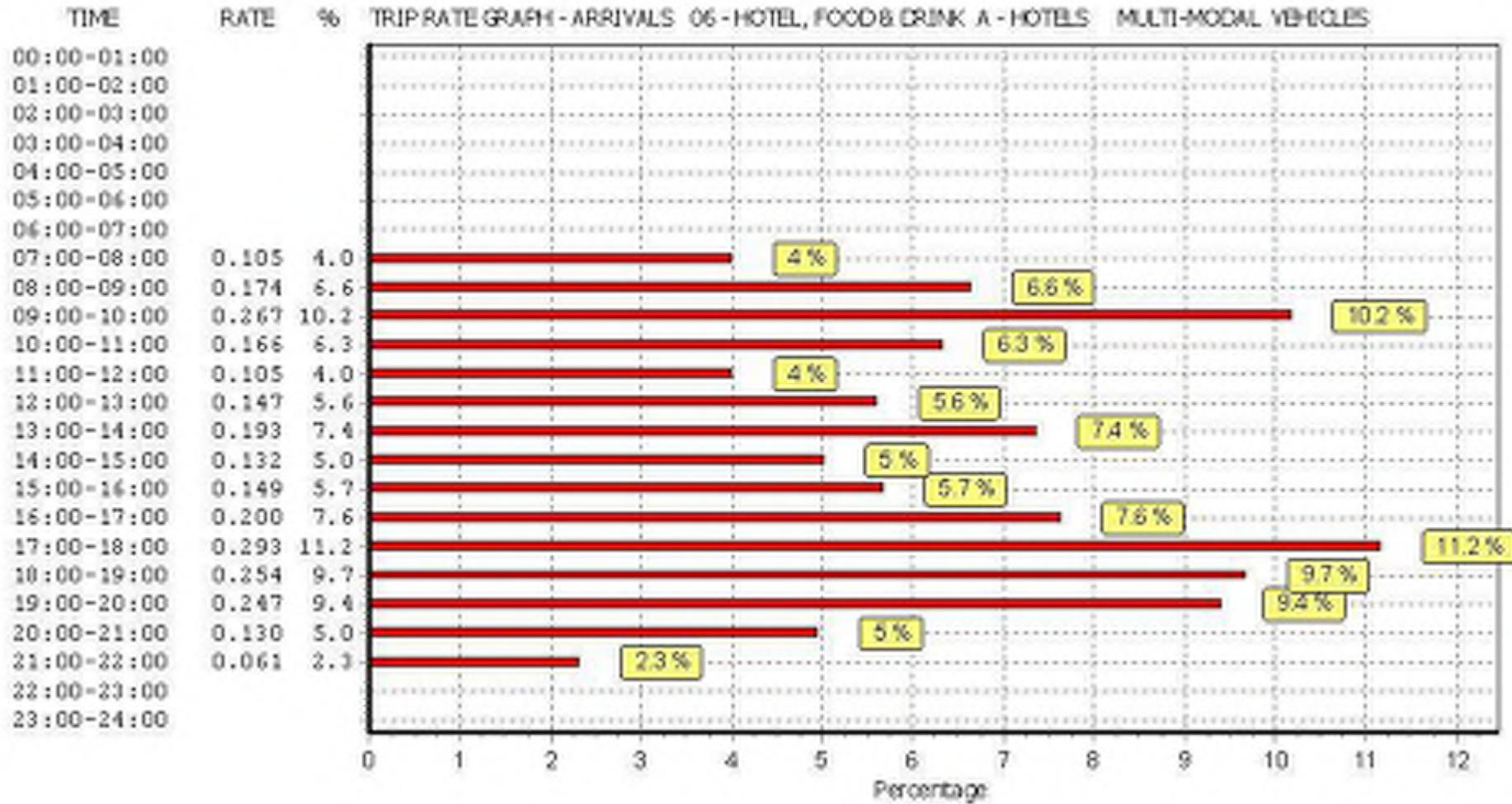
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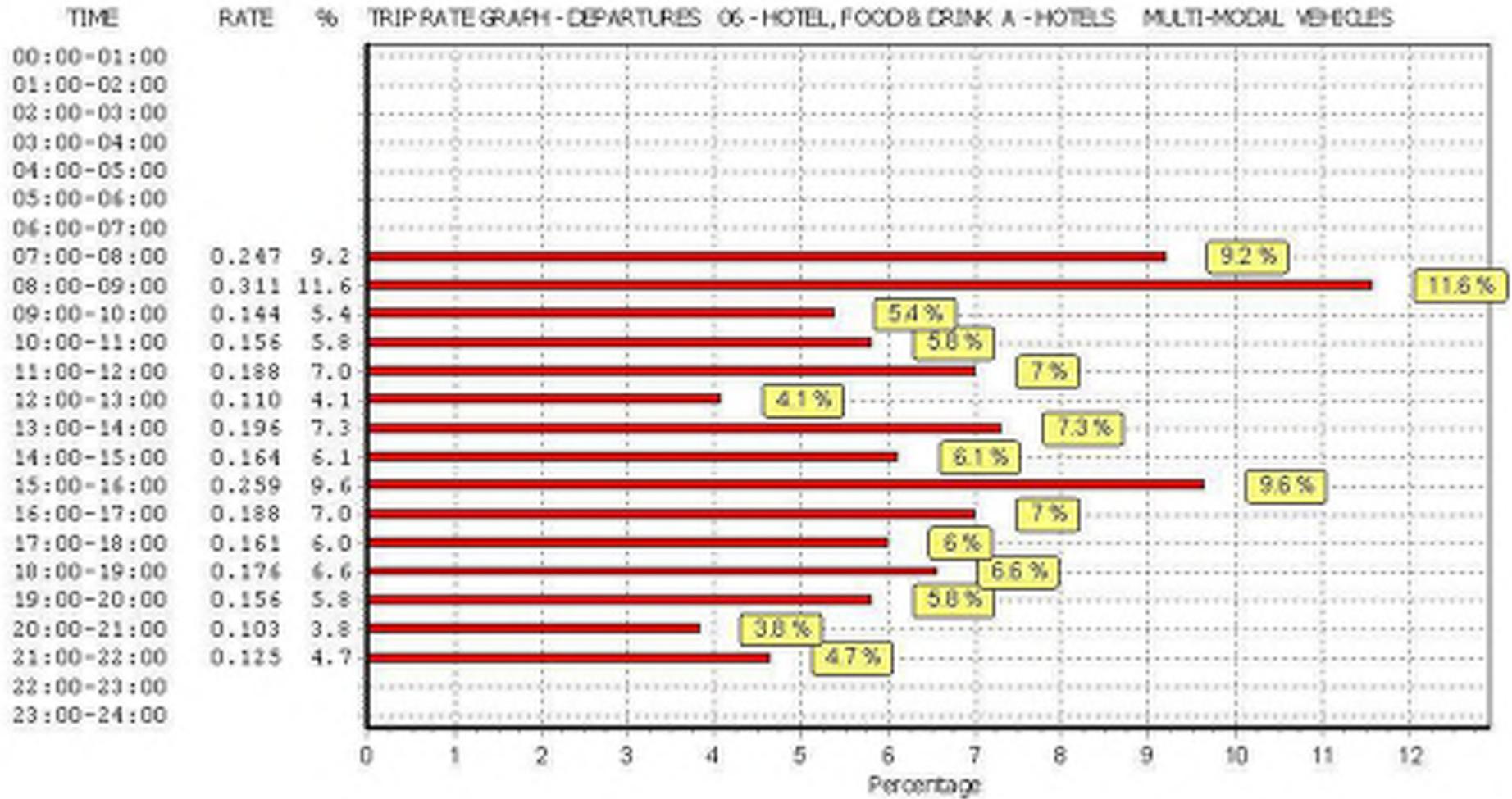
Parameter summary

Trip rate parameter range selected:	4 - 139 (units:)
Survey date date range:	01/01/10 - 26/09/16
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

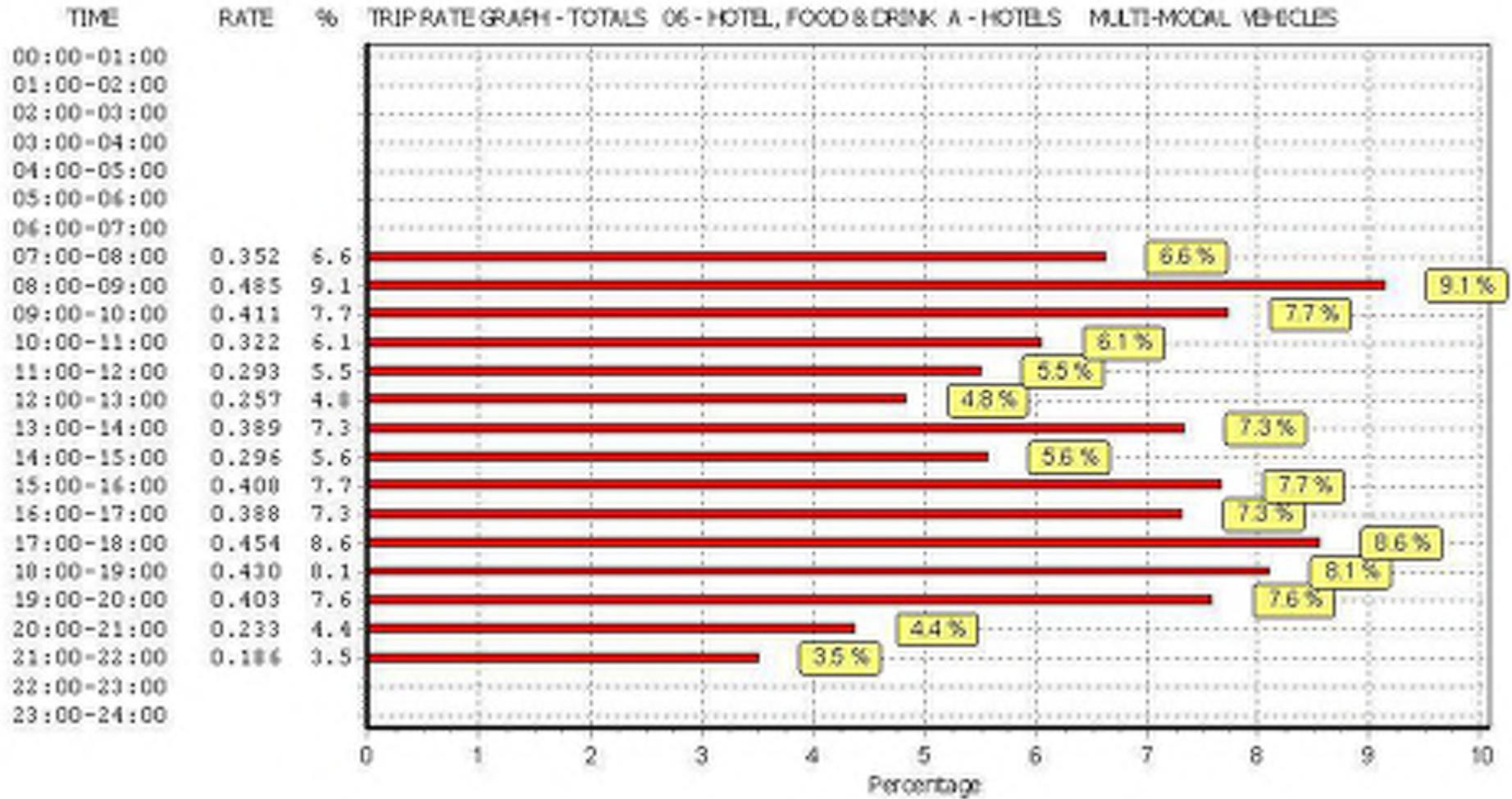
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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



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



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

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

MULTI-MODAL TAXIS

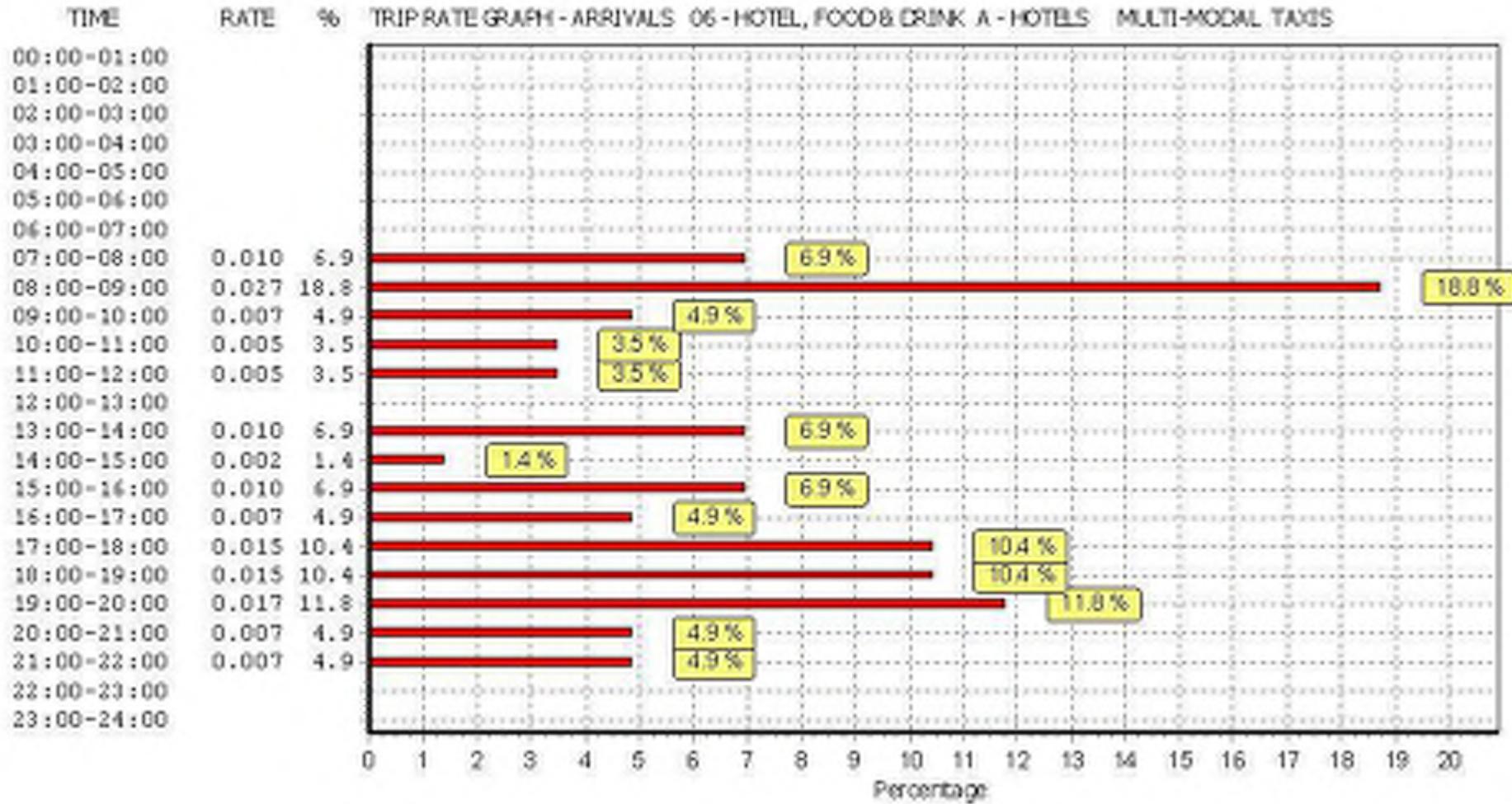
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

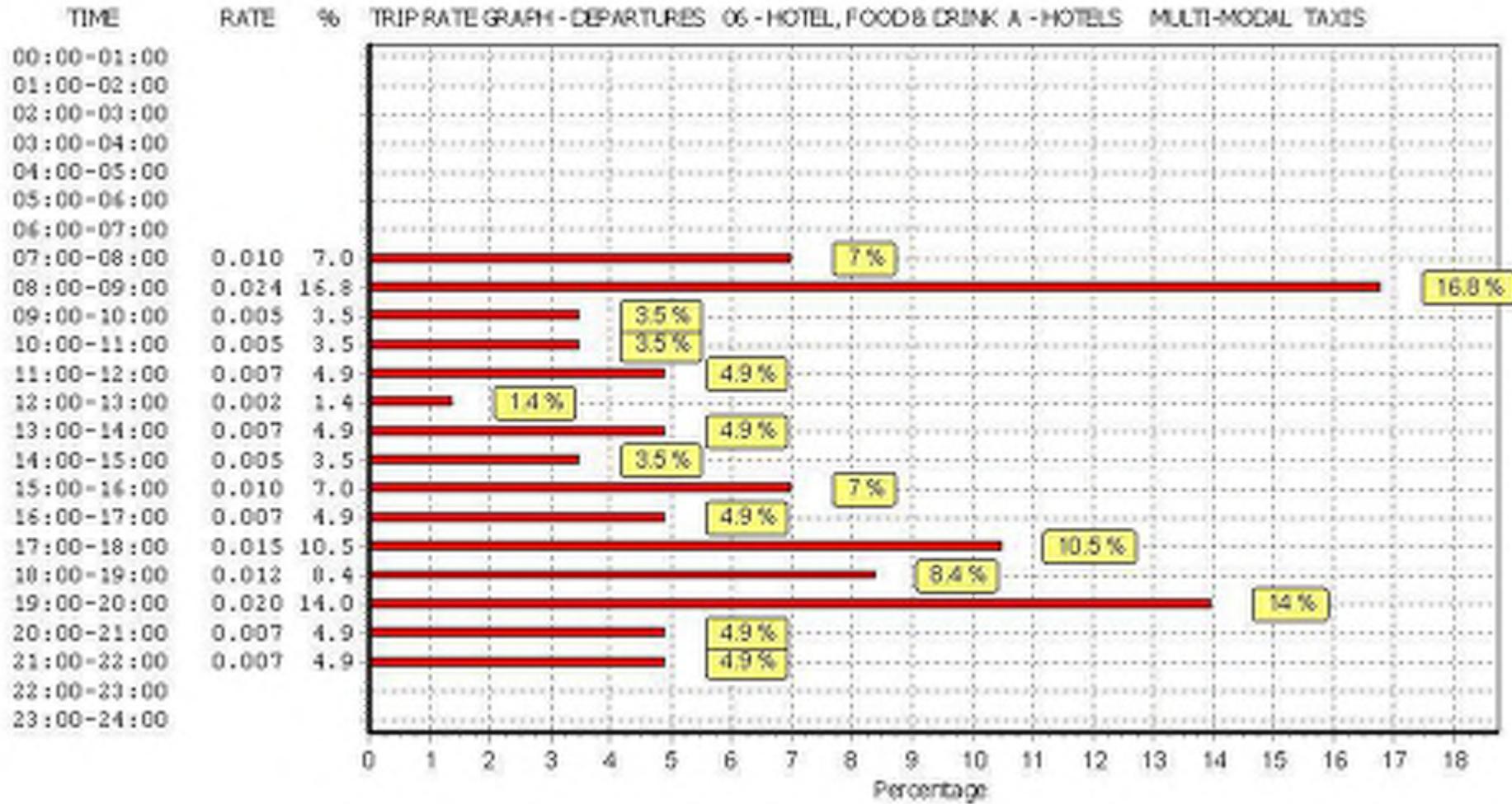
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.010	5	82	0.010	5	82	0.020
08:00 - 09:00	5	82	0.027	5	82	0.024	5	82	0.051
09:00 - 10:00	5	82	0.007	5	82	0.005	5	82	0.012
10:00 - 11:00	5	82	0.005	5	82	0.005	5	82	0.010
11:00 - 12:00	5	82	0.005	5	82	0.007	5	82	0.012
12:00 - 13:00	5	82	0.000	5	82	0.002	5	82	0.002
13:00 - 14:00	5	82	0.010	5	82	0.007	5	82	0.017
14:00 - 15:00	5	82	0.002	5	82	0.005	5	82	0.007
15:00 - 16:00	5	82	0.010	5	82	0.010	5	82	0.020
16:00 - 17:00	5	82	0.007	5	82	0.007	5	82	0.014
17:00 - 18:00	5	82	0.015	5	82	0.015	5	82	0.030
18:00 - 19:00	5	82	0.015	5	82	0.012	5	82	0.027
19:00 - 20:00	5	82	0.017	5	82	0.020	5	82	0.037
20:00 - 21:00	5	82	0.007	5	82	0.007	5	82	0.014
21:00 - 22:00	5	82	0.007	5	82	0.007	5	82	0.014
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.144			0.143			0.287

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

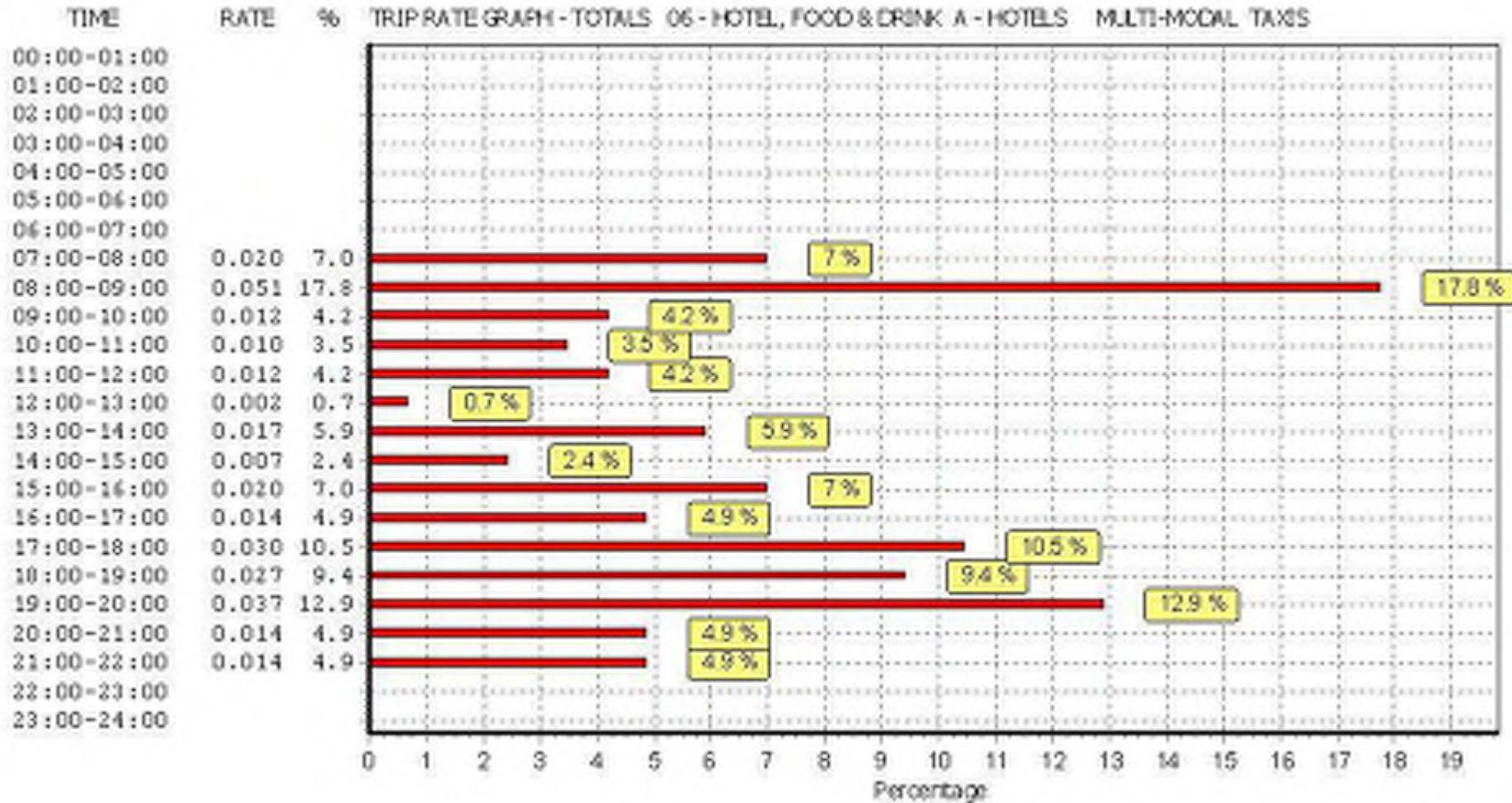
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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

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

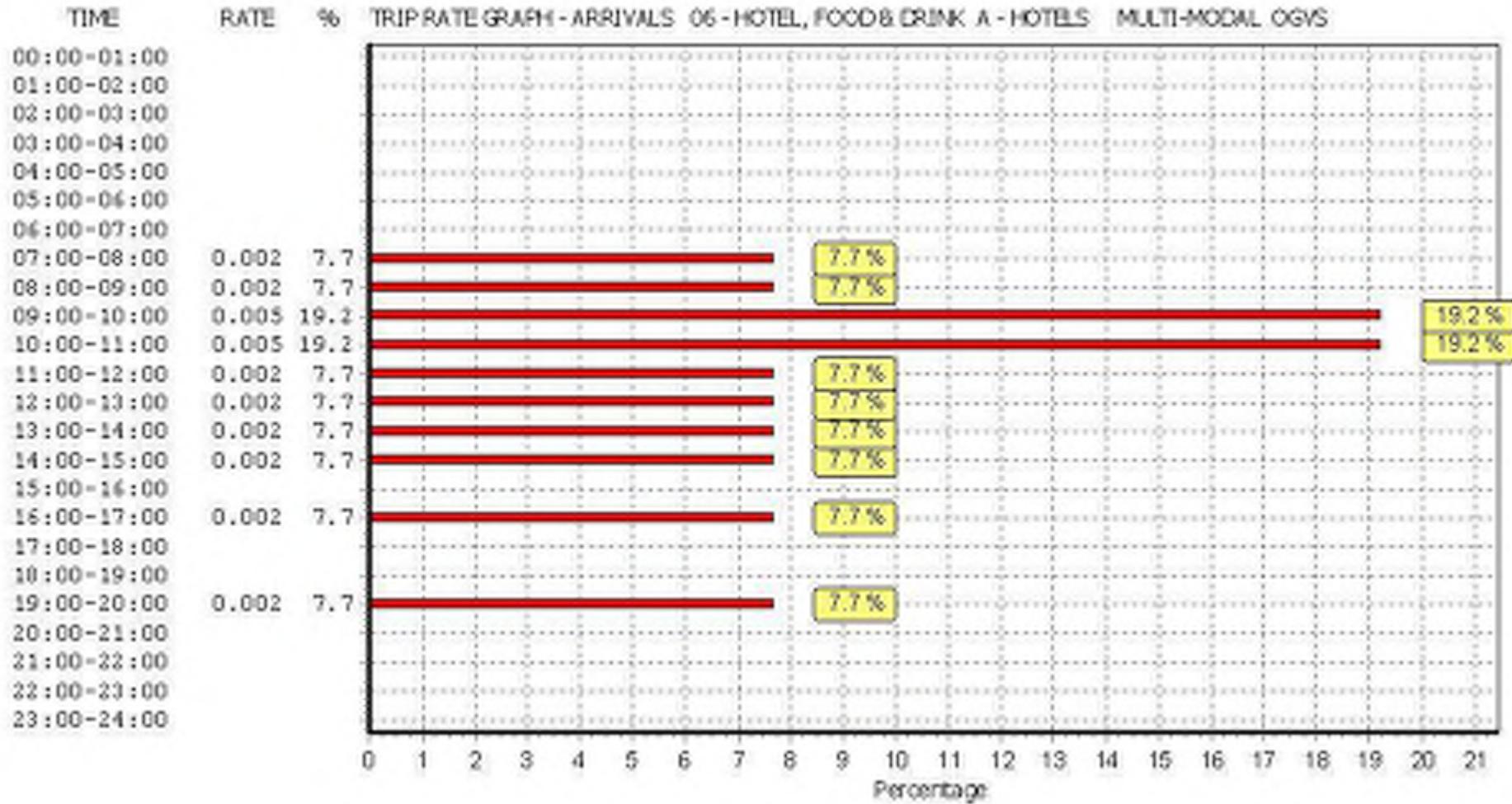
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

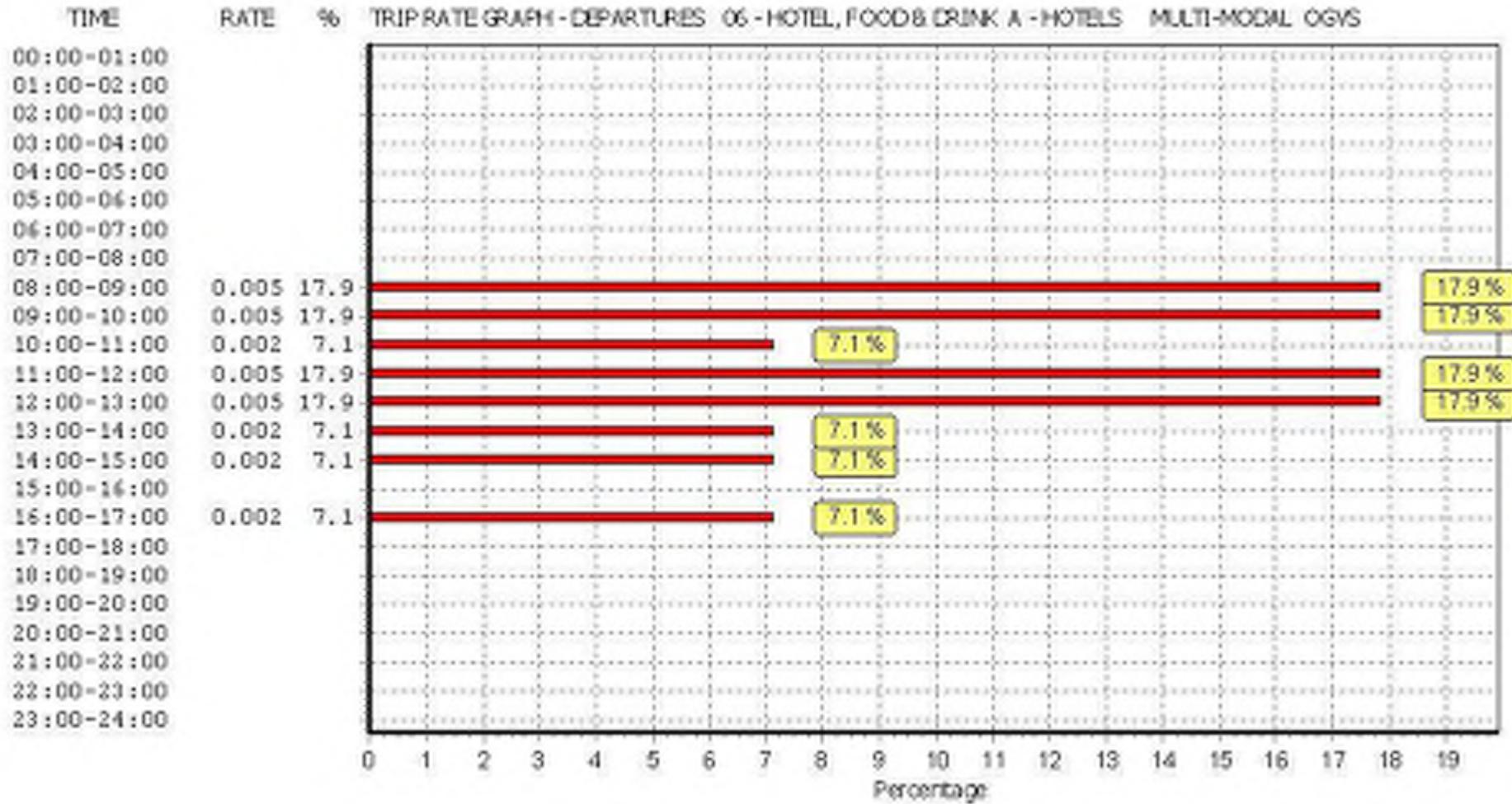
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.002	5	82	0.000	5	82	0.002
08:00 - 09:00	5	82	0.002	5	82	0.005	5	82	0.007
09:00 - 10:00	5	82	0.005	5	82	0.005	5	82	0.010
10:00 - 11:00	5	82	0.005	5	82	0.002	5	82	0.007
11:00 - 12:00	5	82	0.002	5	82	0.005	5	82	0.007
12:00 - 13:00	5	82	0.002	5	82	0.005	5	82	0.007
13:00 - 14:00	5	82	0.002	5	82	0.002	5	82	0.004
14:00 - 15:00	5	82	0.002	5	82	0.002	5	82	0.004
15:00 - 16:00	5	82	0.000	5	82	0.000	5	82	0.000
16:00 - 17:00	5	82	0.002	5	82	0.002	5	82	0.004
17:00 - 18:00	5	82	0.000	5	82	0.000	5	82	0.000
18:00 - 19:00	5	82	0.000	5	82	0.000	5	82	0.000
19:00 - 20:00	5	82	0.002	5	82	0.000	5	82	0.002
20:00 - 21:00	5	82	0.000	5	82	0.000	5	82	0.000
21:00 - 22:00	5	82	0.000	5	82	0.000	5	82	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.026			0.028			0.054

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

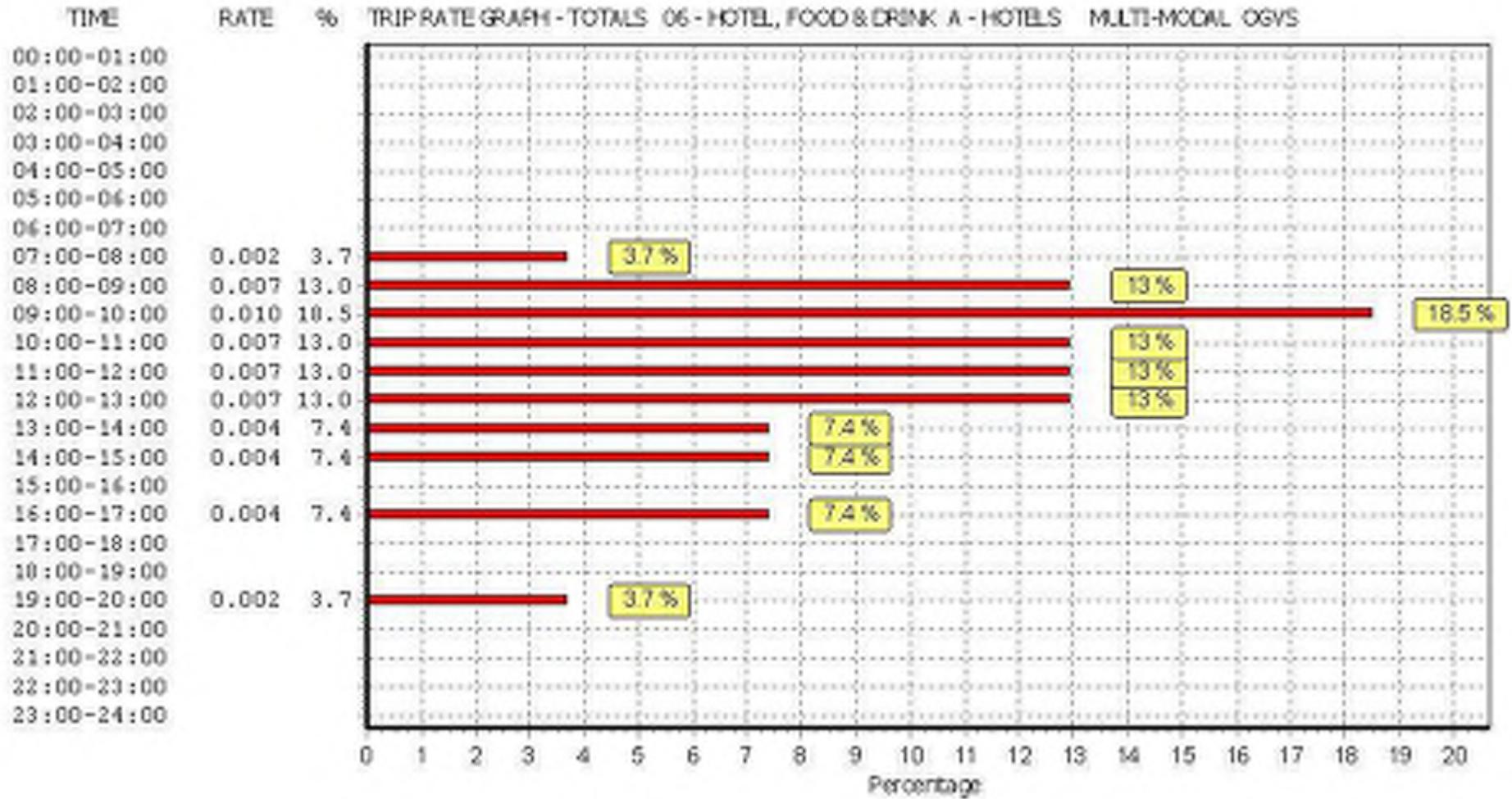
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

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

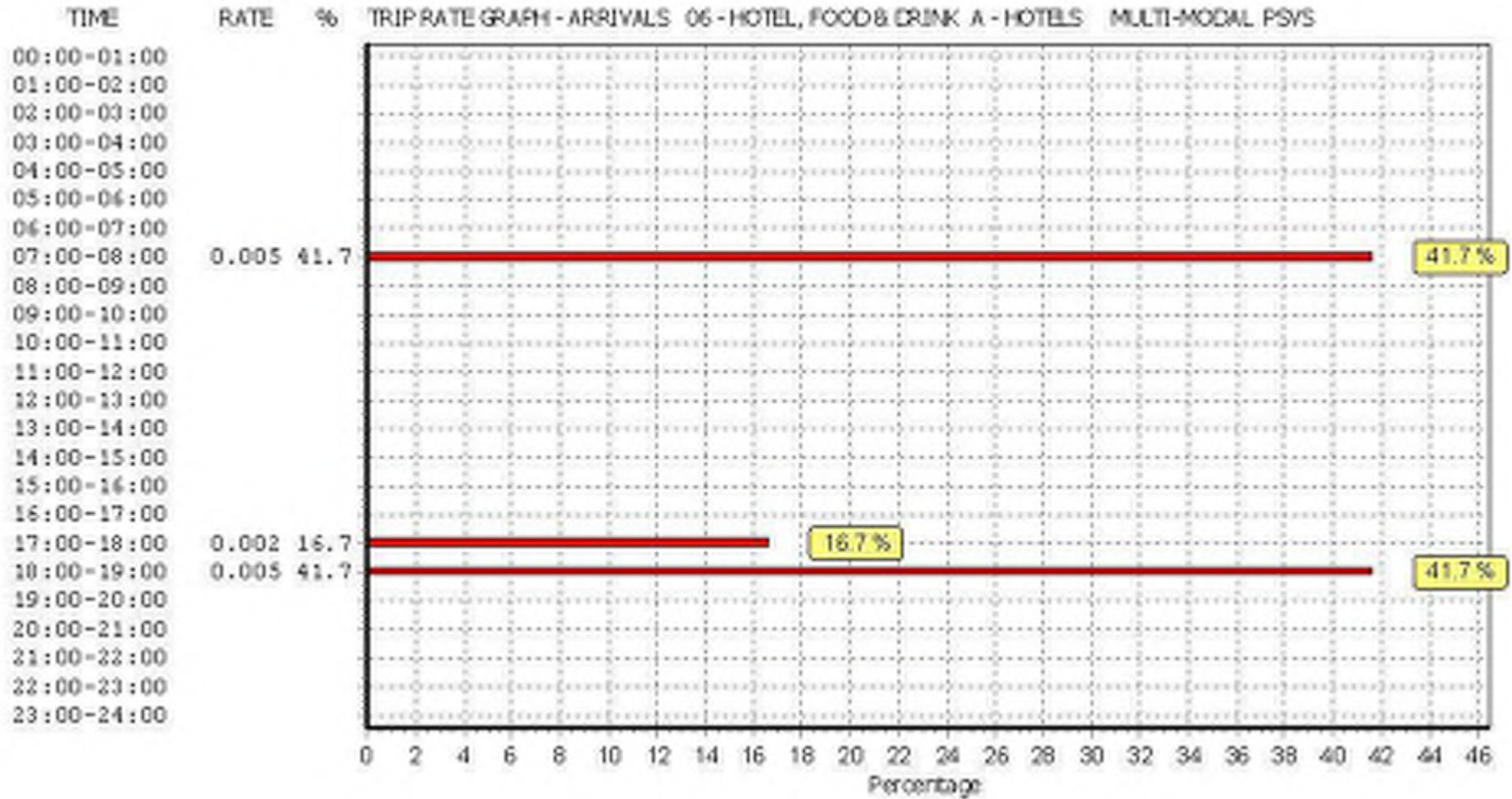
Calculation factor: 1 BEDRMS

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	5	82	0.005	5	82	0.005	5	82	0.010
08:00 - 09:00	5	82	0.000	5	82	0.005	5	82	0.005
09:00 - 10:00	5	82	0.000	5	82	0.000	5	82	0.000
10:00 - 11:00	5	82	0.000	5	82	0.000	5	82	0.000
11:00 - 12:00	5	82	0.000	5	82	0.000	5	82	0.000
12:00 - 13:00	5	82	0.000	5	82	0.000	5	82	0.000
13:00 - 14:00	5	82	0.000	5	82	0.000	5	82	0.000
14:00 - 15:00	5	82	0.000	5	82	0.000	5	82	0.000
15:00 - 16:00	5	82	0.000	5	82	0.000	5	82	0.000
16:00 - 17:00	5	82	0.000	5	82	0.000	5	82	0.000
17:00 - 18:00	5	82	0.002	5	82	0.000	5	82	0.002
18:00 - 19:00	5	82	0.005	5	82	0.002	5	82	0.007
19:00 - 20:00	5	82	0.000	5	82	0.000	5	82	0.000
20:00 - 21:00	5	82	0.000	5	82	0.000	5	82	0.000
21:00 - 22:00	5	82	0.000	5	82	0.000	5	82	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.012			0.024

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

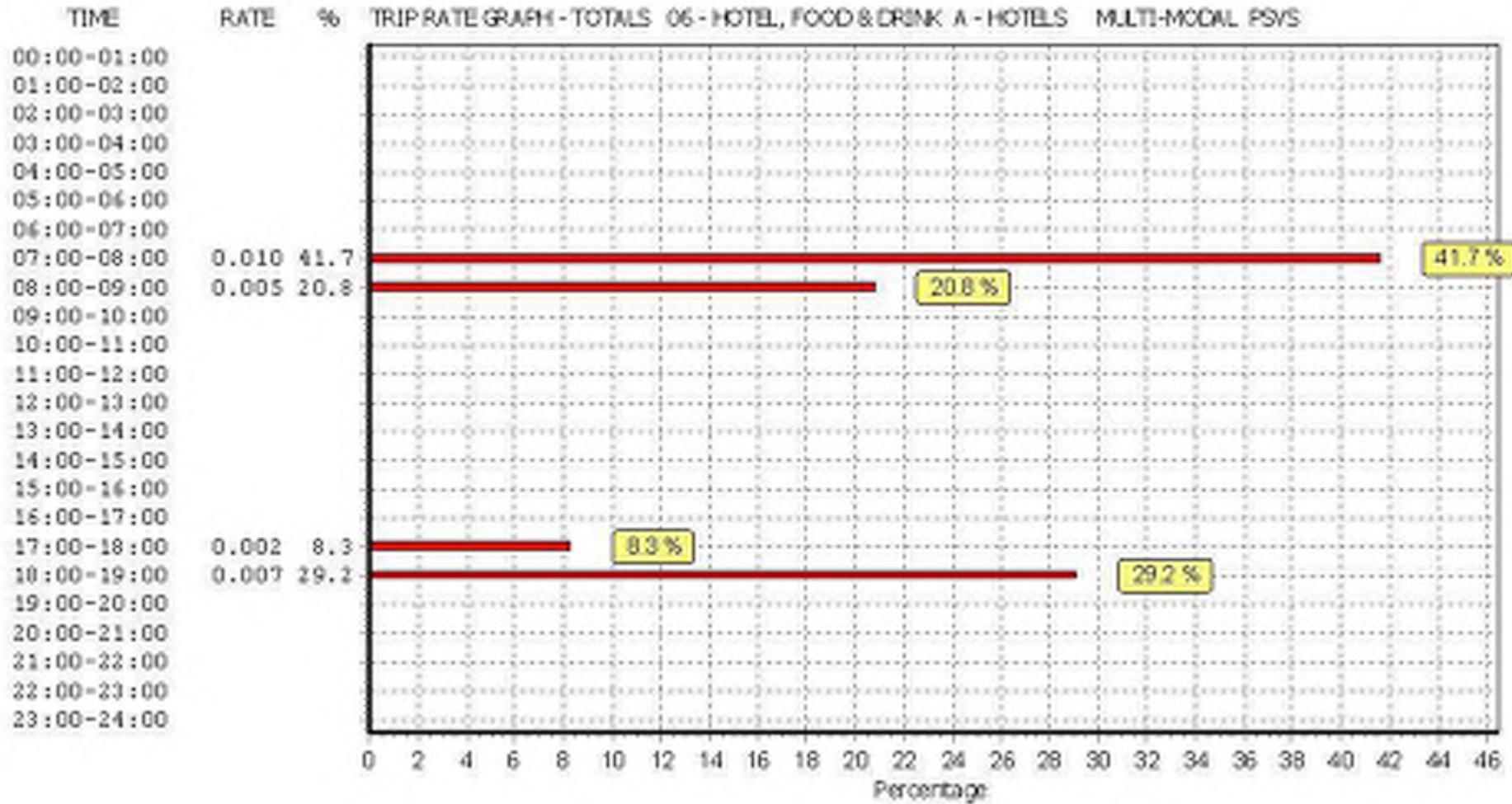
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

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

MULTI-MODAL CYCLISTS

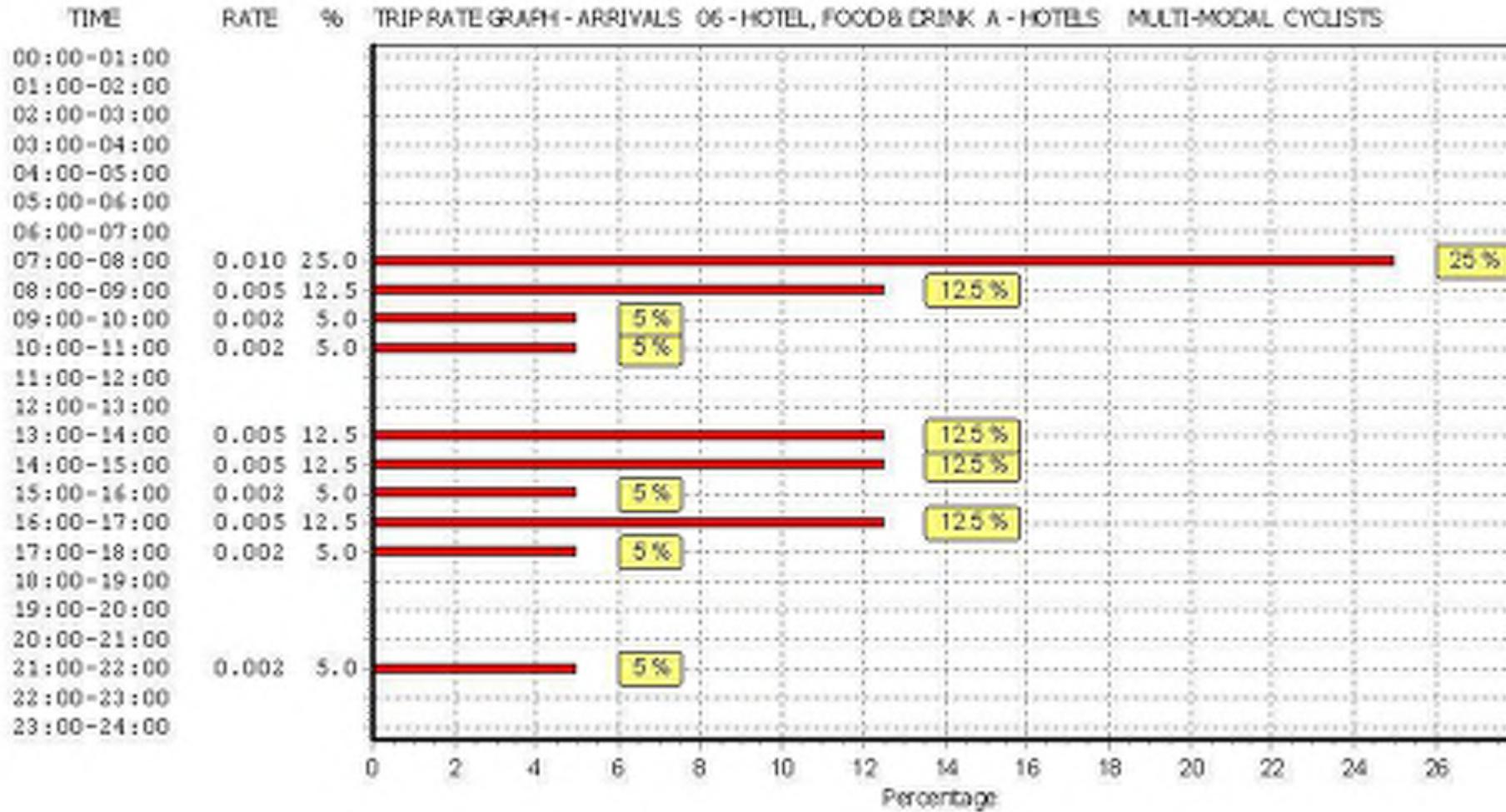
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

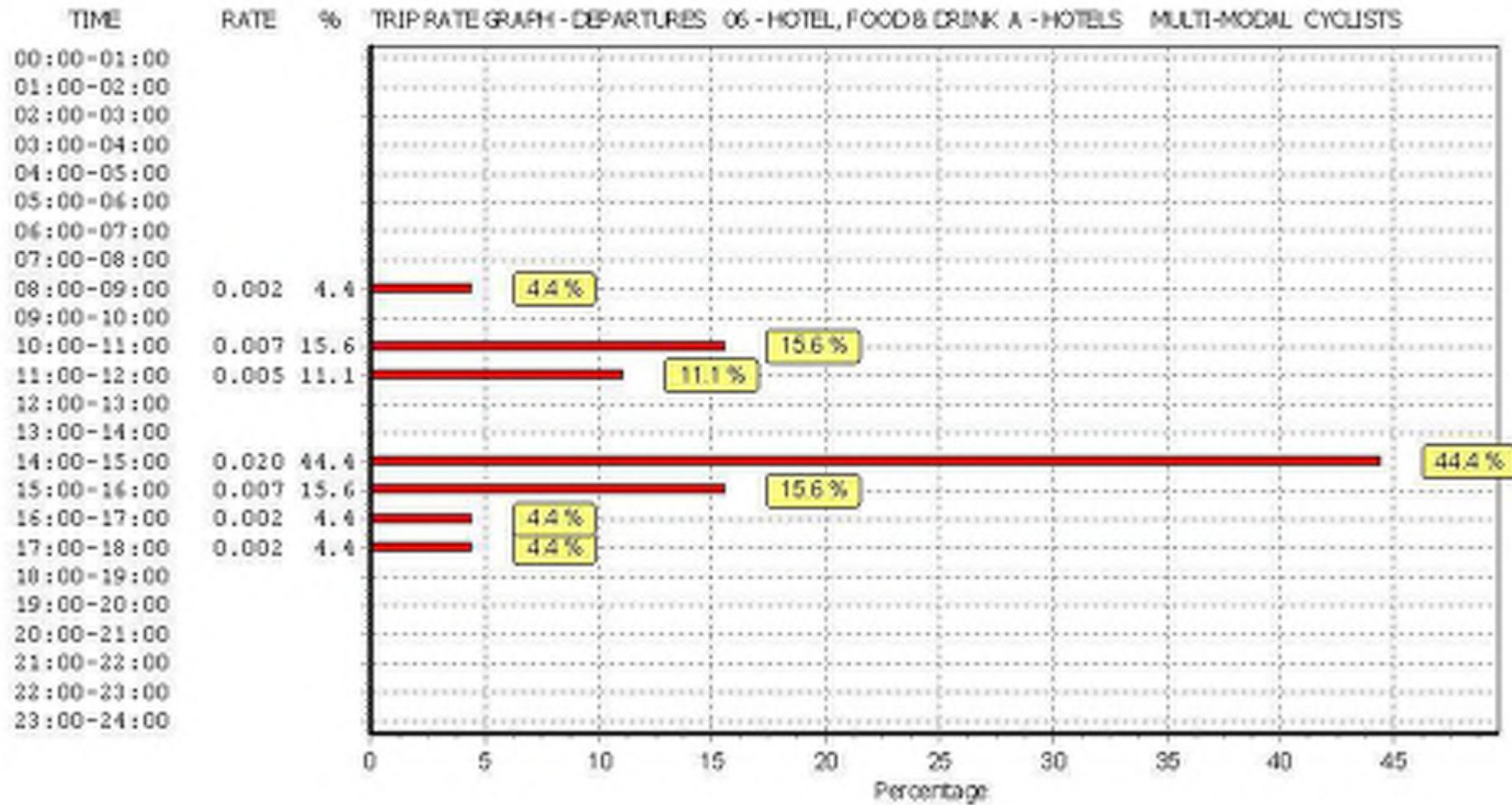
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.010	5	82	0.000	5	82	0.010
08:00 - 09:00	5	82	0.005	5	82	0.002	5	82	0.007
09:00 - 10:00	5	82	0.002	5	82	0.000	5	82	0.002
10:00 - 11:00	5	82	0.002	5	82	0.007	5	82	0.009
11:00 - 12:00	5	82	0.000	5	82	0.005	5	82	0.005
12:00 - 13:00	5	82	0.000	5	82	0.000	5	82	0.000
13:00 - 14:00	5	82	0.005	5	82	0.000	5	82	0.005
14:00 - 15:00	5	82	0.005	5	82	0.020	5	82	0.025
15:00 - 16:00	5	82	0.002	5	82	0.007	5	82	0.009
16:00 - 17:00	5	82	0.005	5	82	0.002	5	82	0.007
17:00 - 18:00	5	82	0.002	5	82	0.002	5	82	0.004
18:00 - 19:00	5	82	0.000	5	82	0.000	5	82	0.000
19:00 - 20:00	5	82	0.000	5	82	0.000	5	82	0.000
20:00 - 21:00	5	82	0.000	5	82	0.000	5	82	0.000
21:00 - 22:00	5	82	0.002	5	82	0.000	5	82	0.002
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.040			0.045			0.085

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

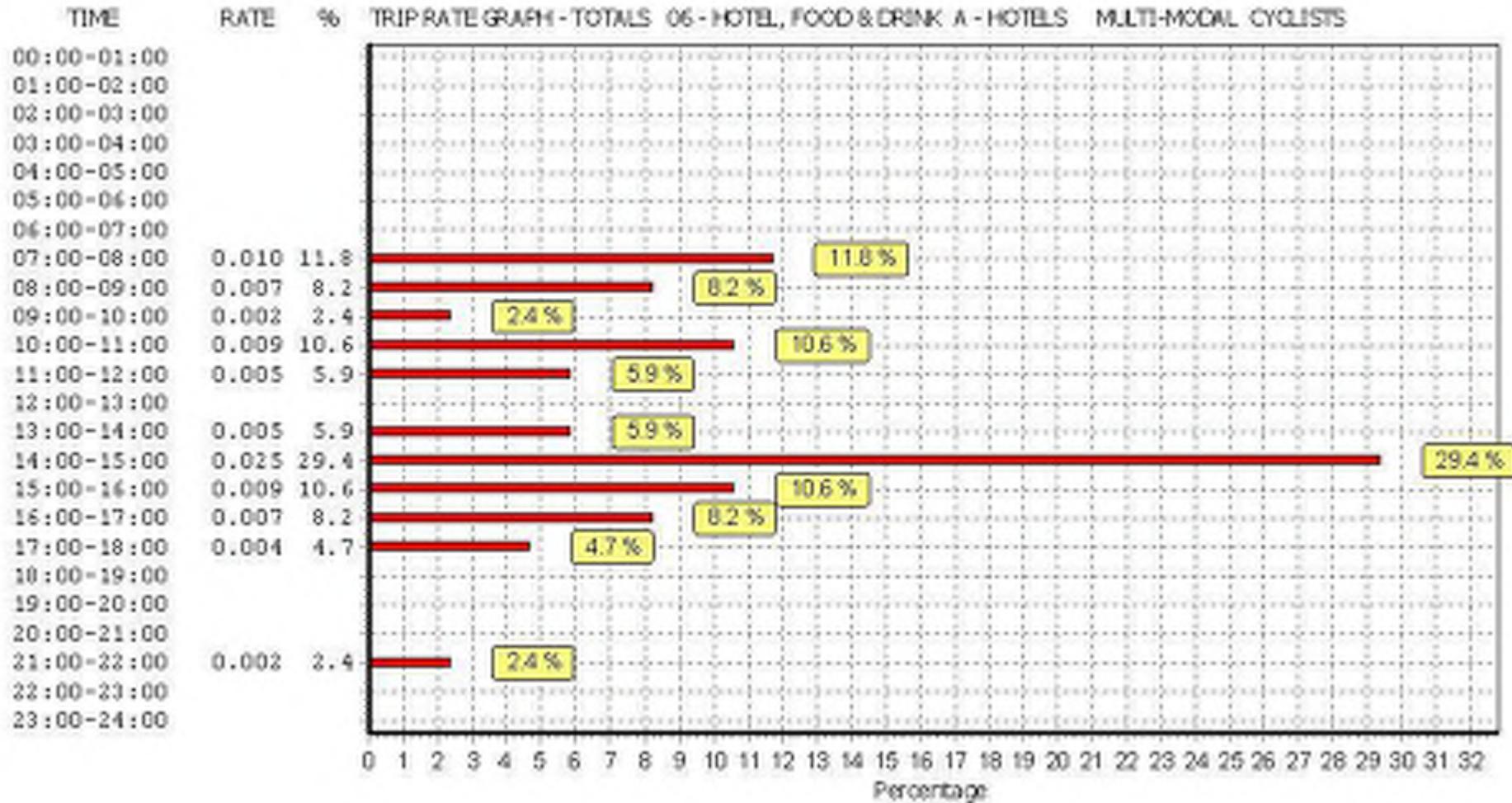
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

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

MULTI-MODAL VEHICLE OCCUPANTS

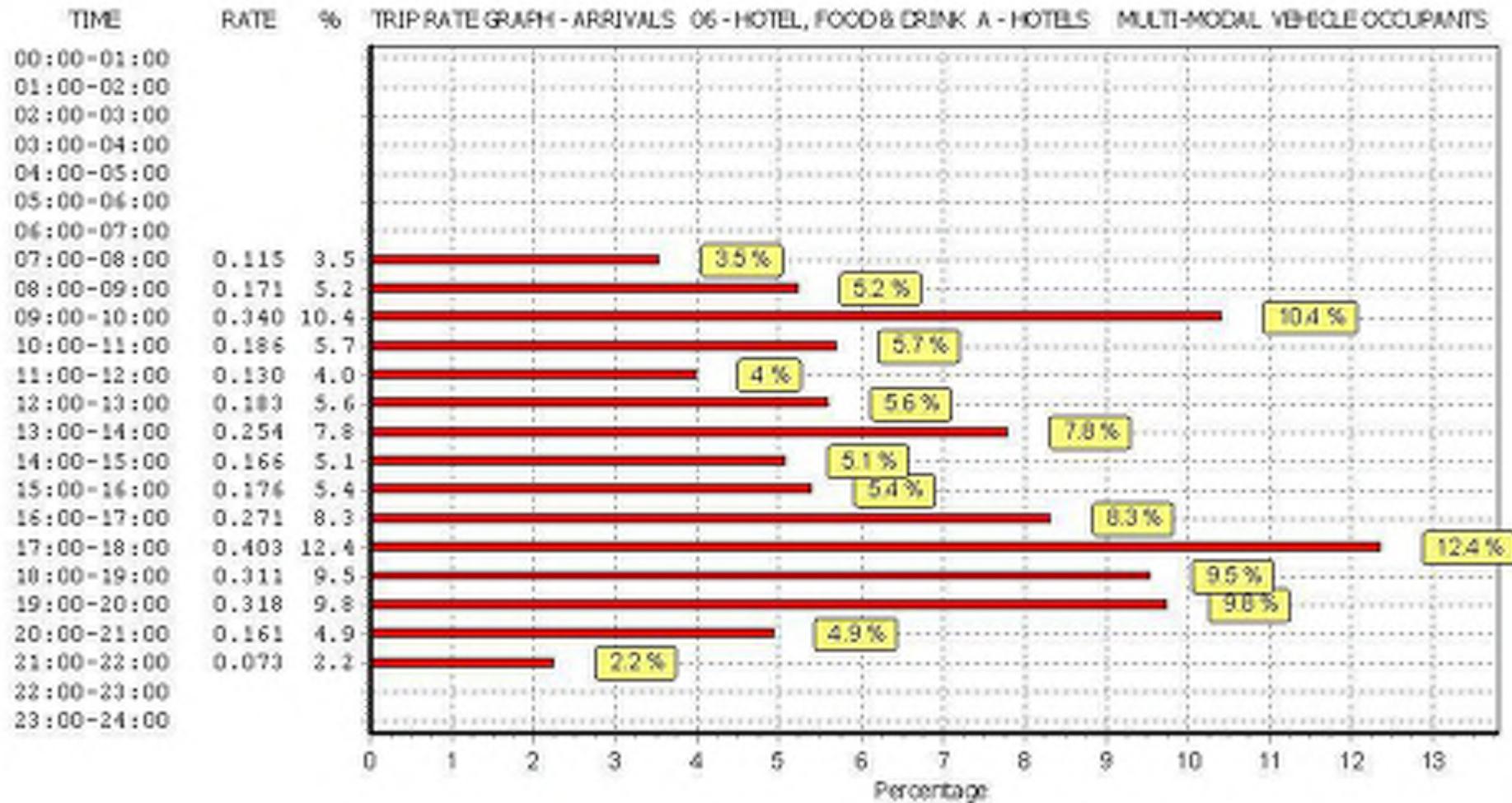
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

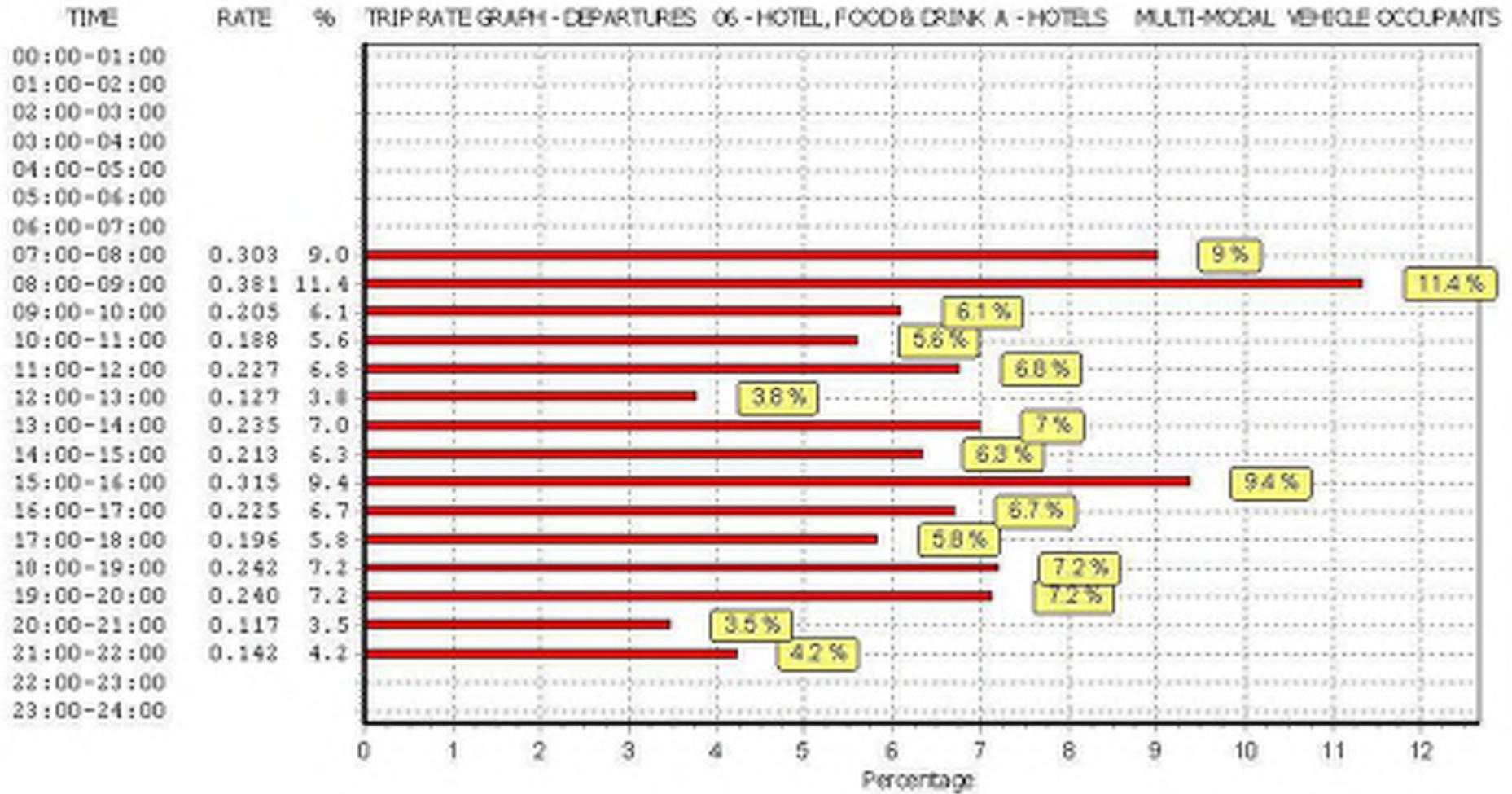
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.115	5	82	0.303	5	82	0.418
08:00 - 09:00	5	82	0.171	5	82	0.381	5	82	0.552
09:00 - 10:00	5	82	0.340	5	82	0.205	5	82	0.545
10:00 - 11:00	5	82	0.186	5	82	0.188	5	82	0.374
11:00 - 12:00	5	82	0.130	5	82	0.227	5	82	0.357
12:00 - 13:00	5	82	0.183	5	82	0.127	5	82	0.310
13:00 - 14:00	5	82	0.254	5	82	0.235	5	82	0.489
14:00 - 15:00	5	82	0.166	5	82	0.213	5	82	0.379
15:00 - 16:00	5	82	0.176	5	82	0.315	5	82	0.491
16:00 - 17:00	5	82	0.271	5	82	0.225	5	82	0.496
17:00 - 18:00	5	82	0.403	5	82	0.196	5	82	0.599
18:00 - 19:00	5	82	0.311	5	82	0.242	5	82	0.553
19:00 - 20:00	5	82	0.318	5	82	0.240	5	82	0.558
20:00 - 21:00	5	82	0.161	5	82	0.117	5	82	0.278
21:00 - 22:00	5	82	0.073	5	82	0.142	5	82	0.215
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.258			3.356			6.614

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

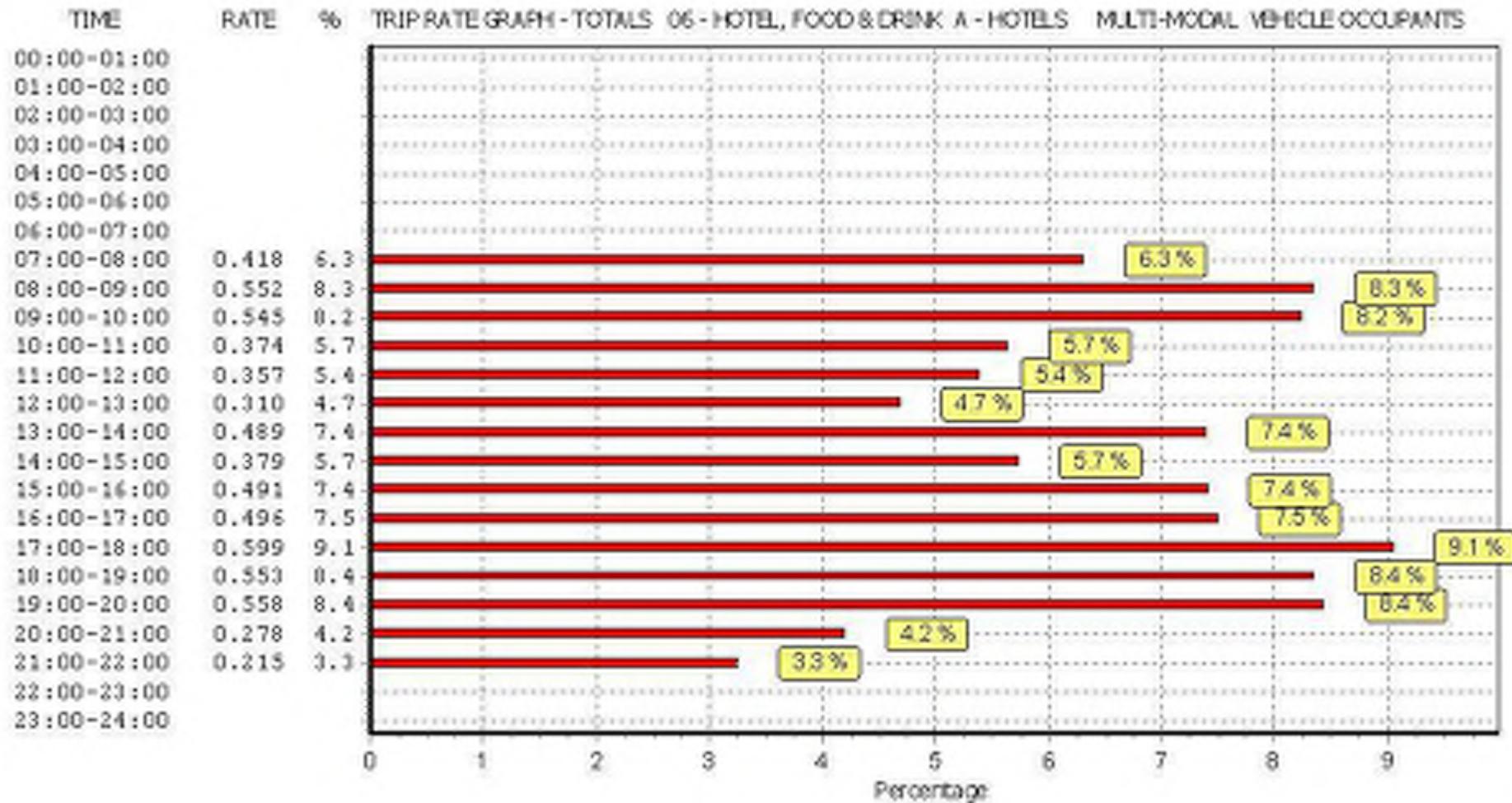
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

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

MULTI-MODAL PEDESTRIANS

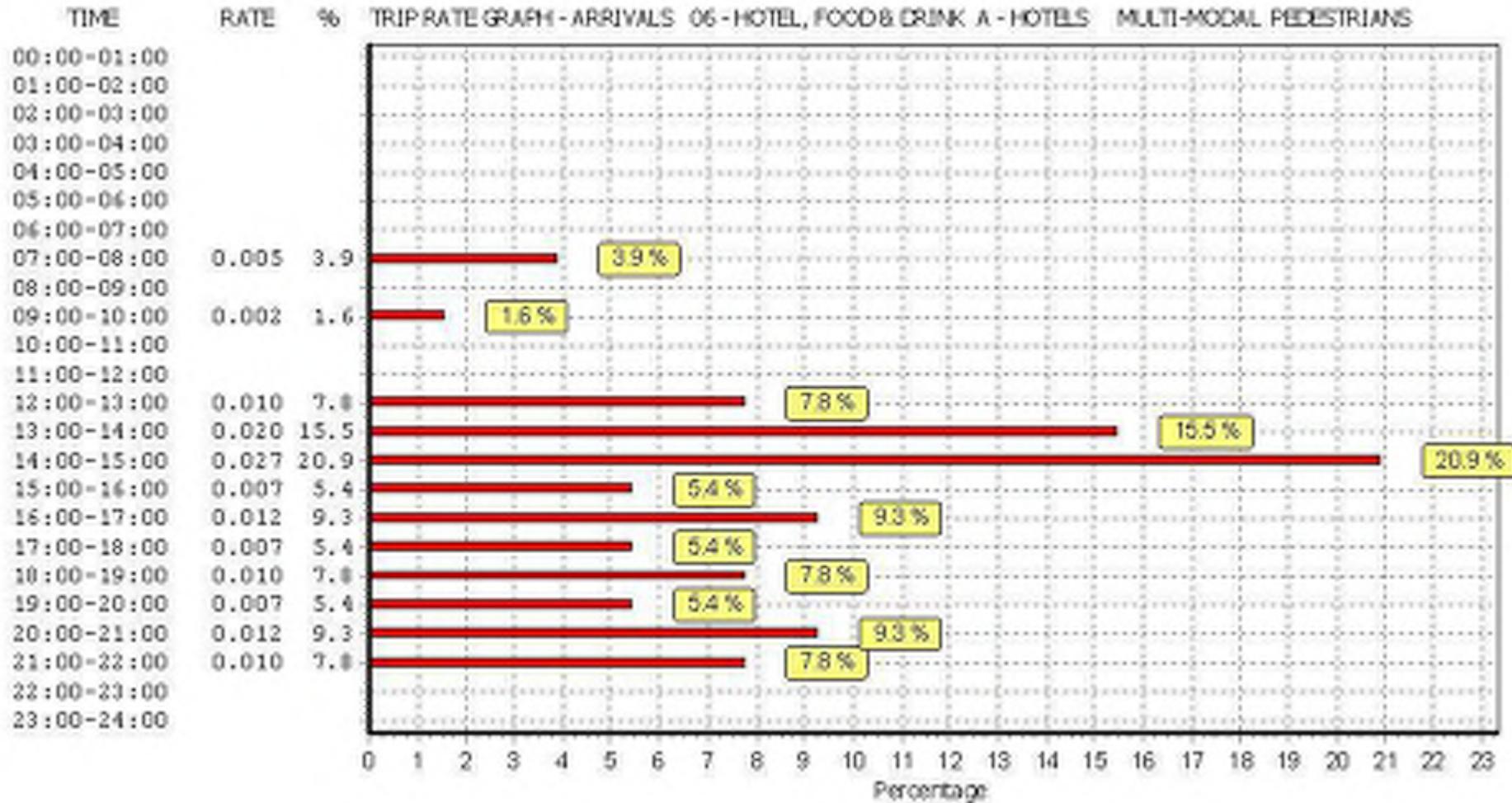
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

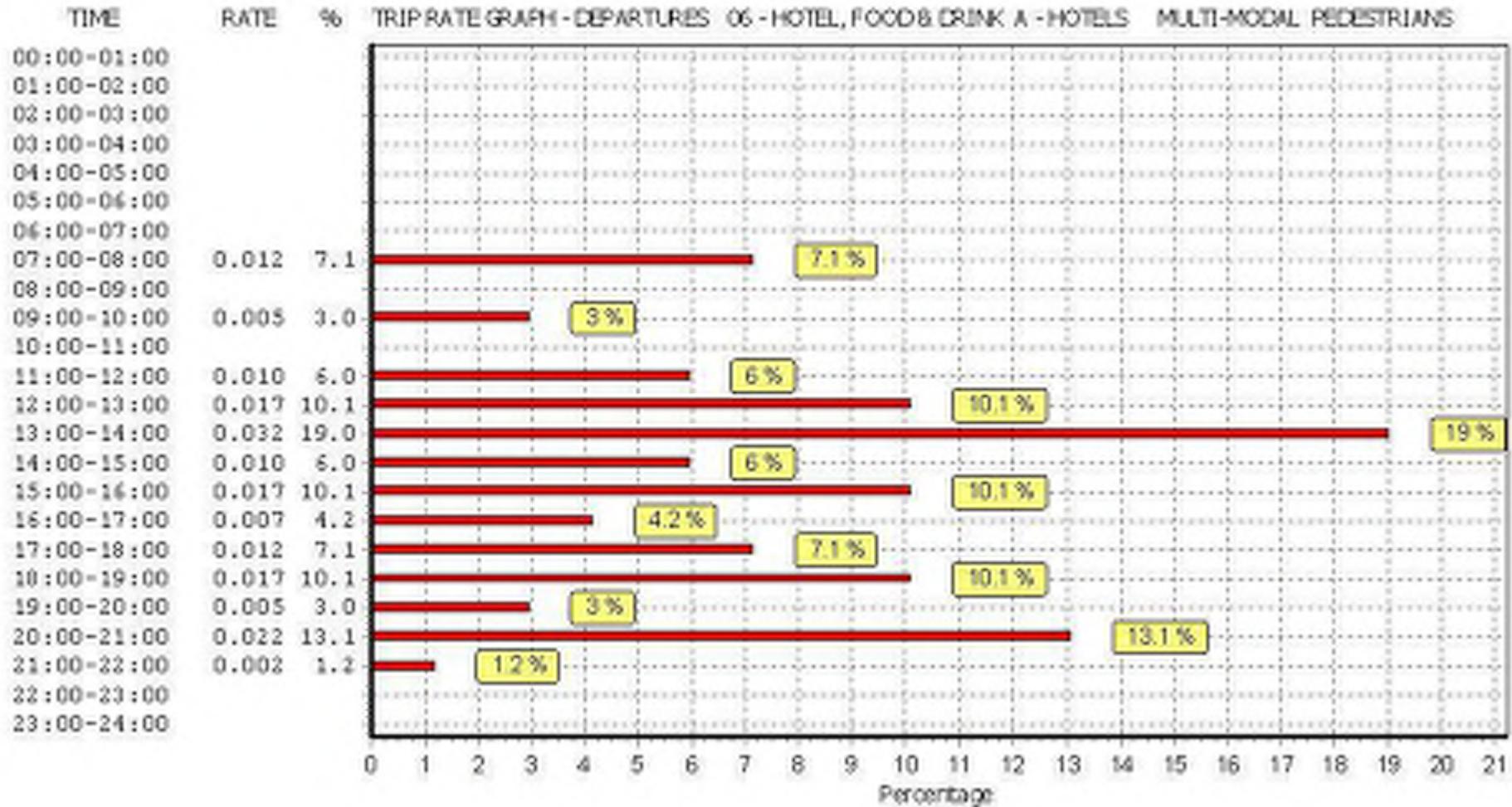
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.005	5	82	0.012	5	82	0.017
08:00 - 09:00	5	82	0.000	5	82	0.000	5	82	0.000
09:00 - 10:00	5	82	0.002	5	82	0.005	5	82	0.007
10:00 - 11:00	5	82	0.000	5	82	0.000	5	82	0.000
11:00 - 12:00	5	82	0.000	5	82	0.010	5	82	0.010
12:00 - 13:00	5	82	0.010	5	82	0.017	5	82	0.027
13:00 - 14:00	5	82	0.020	5	82	0.032	5	82	0.052
14:00 - 15:00	5	82	0.027	5	82	0.010	5	82	0.037
15:00 - 16:00	5	82	0.007	5	82	0.017	5	82	0.024
16:00 - 17:00	5	82	0.012	5	82	0.007	5	82	0.019
17:00 - 18:00	5	82	0.007	5	82	0.012	5	82	0.019
18:00 - 19:00	5	82	0.010	5	82	0.017	5	82	0.027
19:00 - 20:00	5	82	0.007	5	82	0.005	5	82	0.012
20:00 - 21:00	5	82	0.012	5	82	0.022	5	82	0.034
21:00 - 22:00	5	82	0.010	5	82	0.002	5	82	0.012
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.129			0.168			0.297

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

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



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



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



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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL BUS/TRAM PASSENGERS

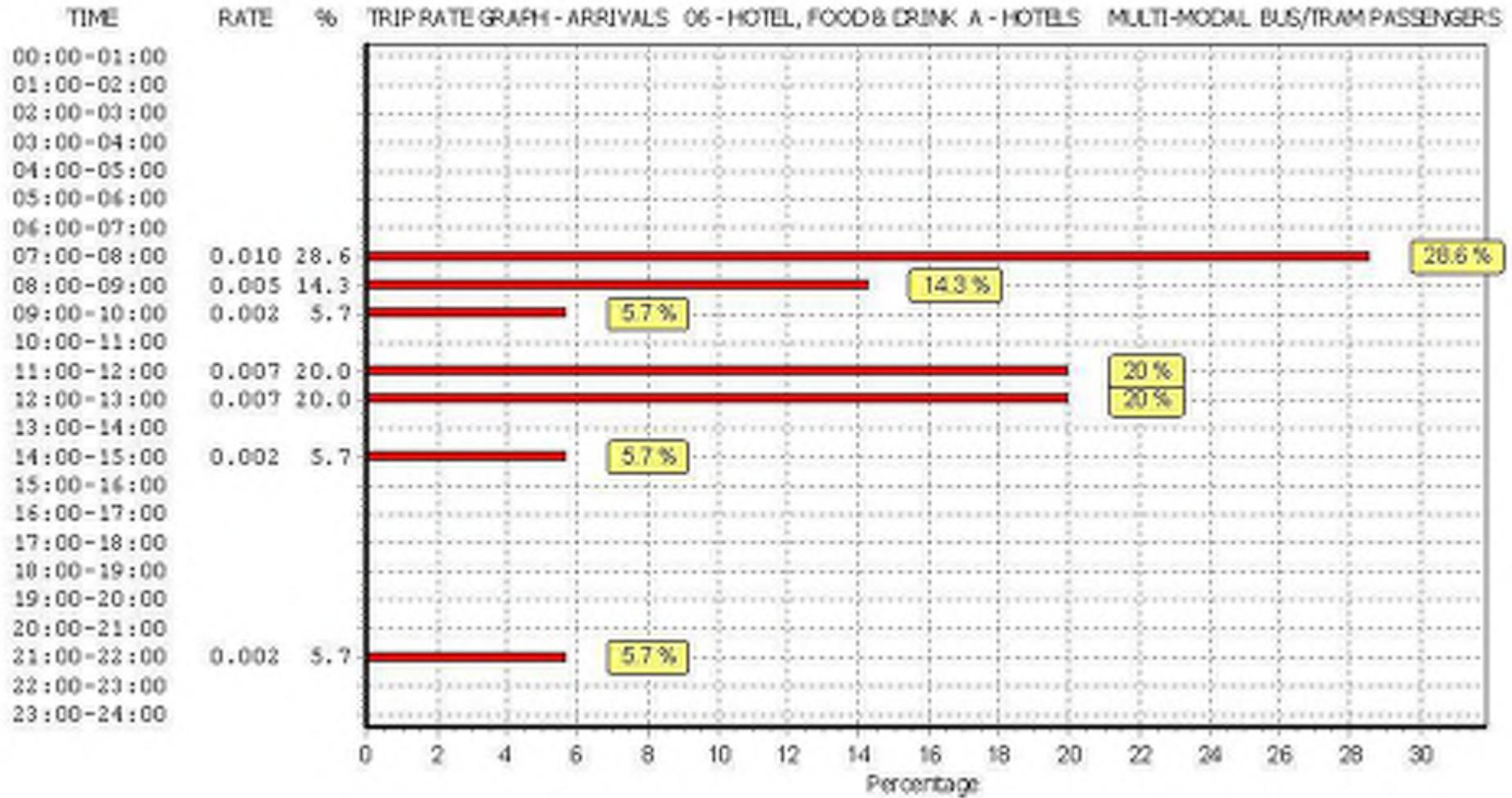
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

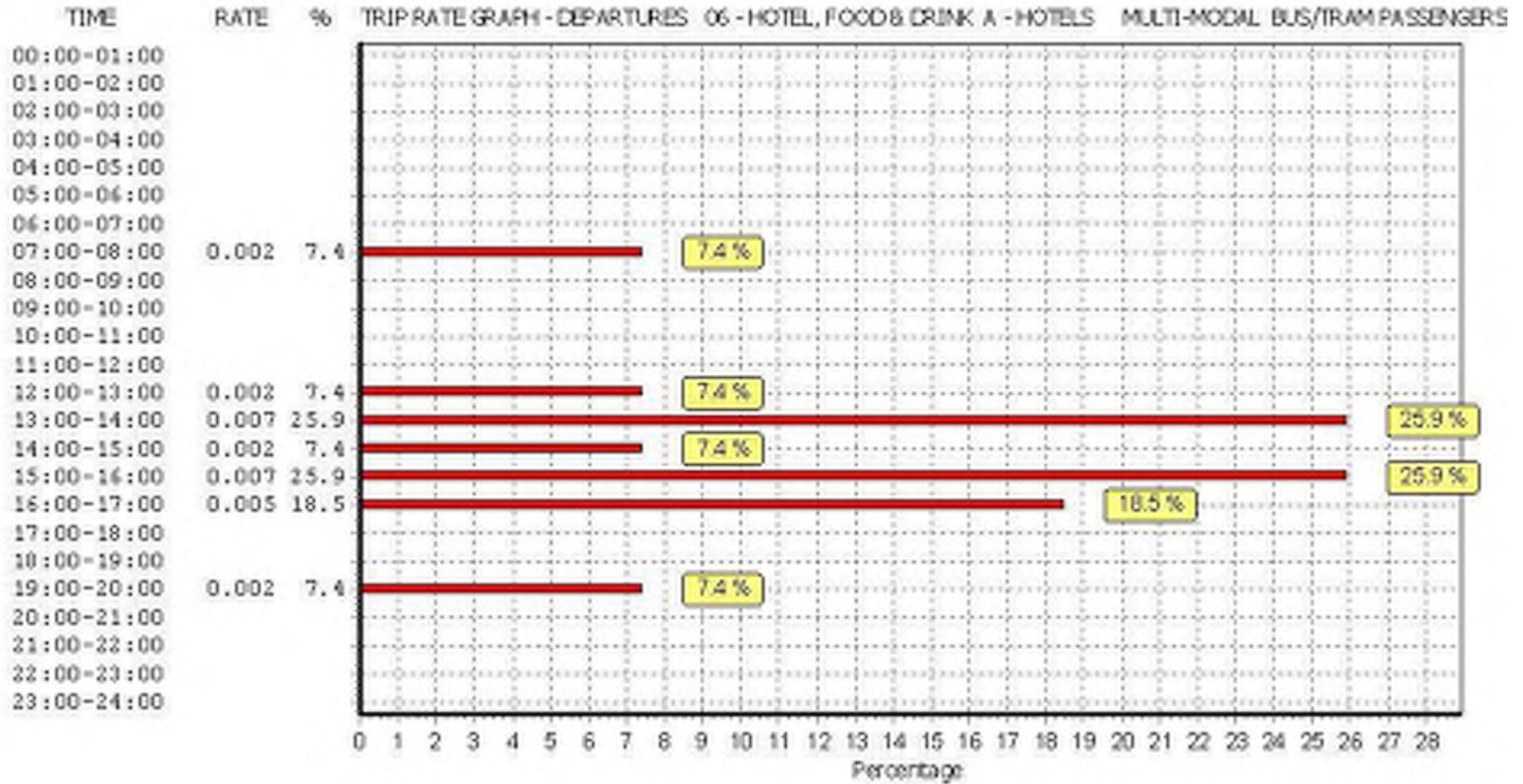
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.010	5	82	0.002	5	82	0.012
08:00 - 09:00	5	82	0.005	5	82	0.000	5	82	0.005
09:00 - 10:00	5	82	0.002	5	82	0.000	5	82	0.002
10:00 - 11:00	5	82	0.000	5	82	0.000	5	82	0.000
11:00 - 12:00	5	82	0.007	5	82	0.000	5	82	0.007
12:00 - 13:00	5	82	0.007	5	82	0.002	5	82	0.009
13:00 - 14:00	5	82	0.000	5	82	0.007	5	82	0.007
14:00 - 15:00	5	82	0.002	5	82	0.002	5	82	0.004
15:00 - 16:00	5	82	0.000	5	82	0.007	5	82	0.007
16:00 - 17:00	5	82	0.000	5	82	0.005	5	82	0.005
17:00 - 18:00	5	82	0.000	5	82	0.000	5	82	0.000
18:00 - 19:00	5	82	0.000	5	82	0.000	5	82	0.000
19:00 - 20:00	5	82	0.000	5	82	0.002	5	82	0.002
20:00 - 21:00	5	82	0.000	5	82	0.000	5	82	0.000
21:00 - 22:00	5	82	0.002	5	82	0.000	5	82	0.002
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.035			0.027			0.062

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

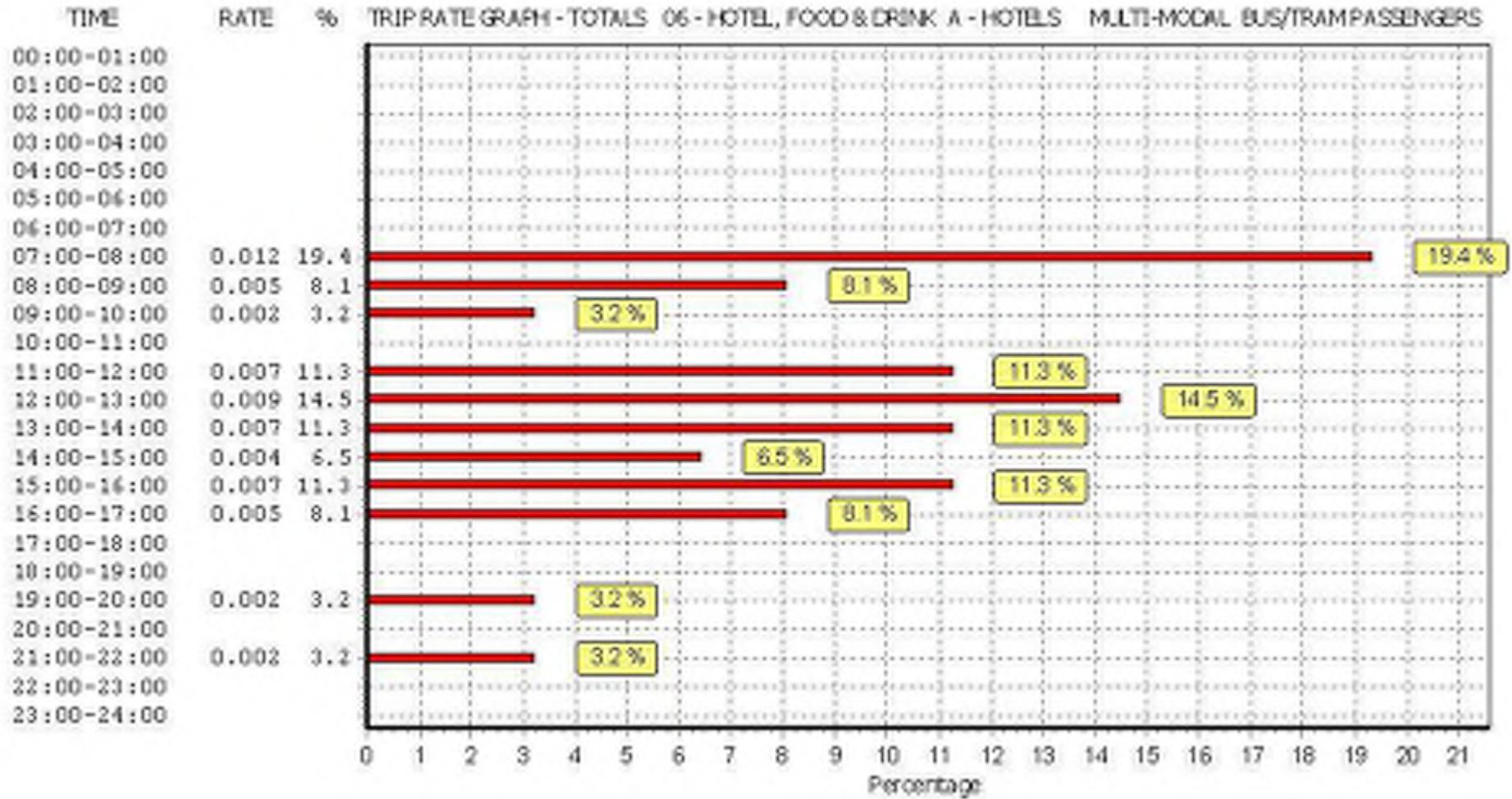
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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



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

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

MULTI-MODAL COACH PASSENGERS

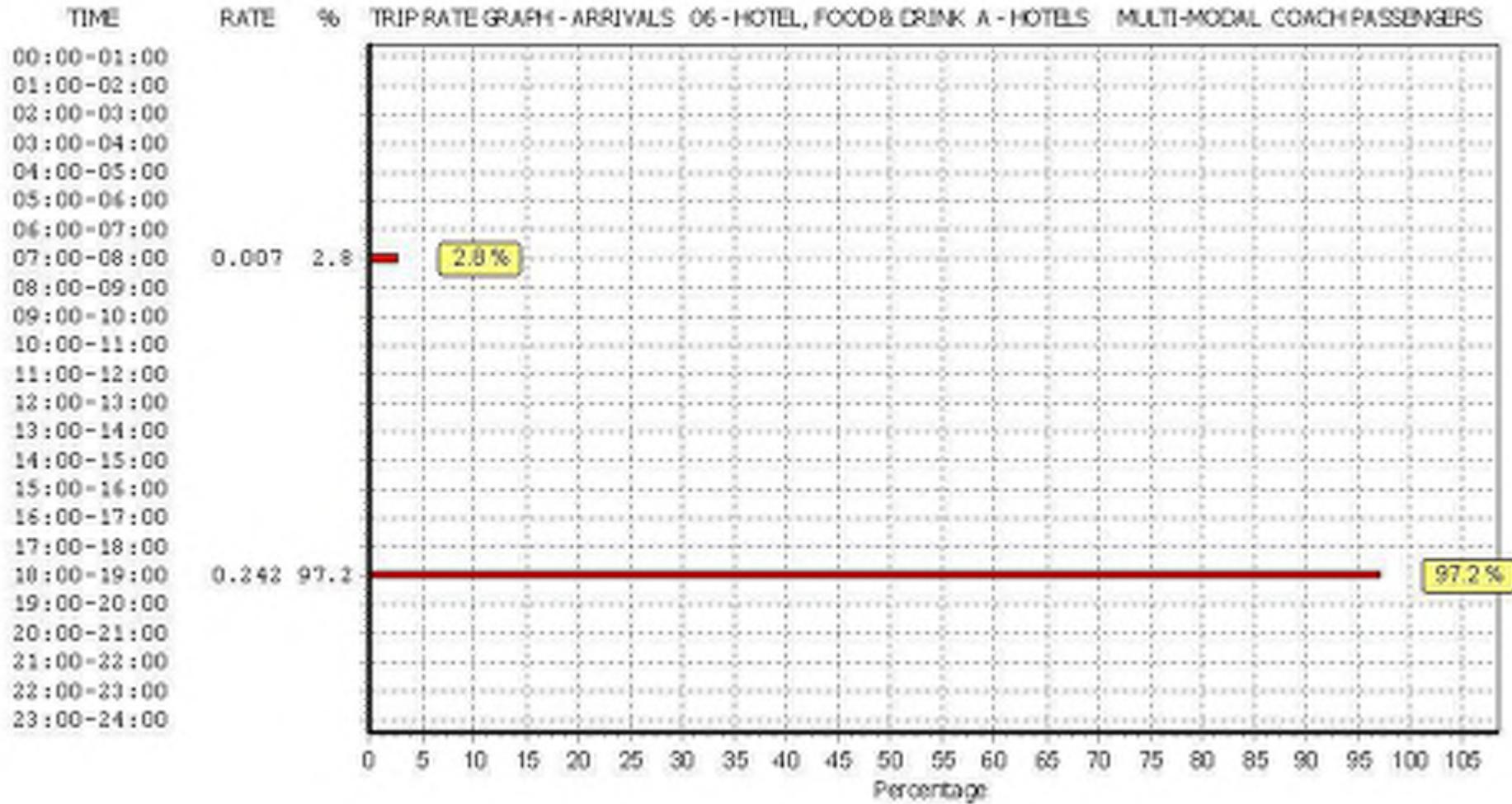
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

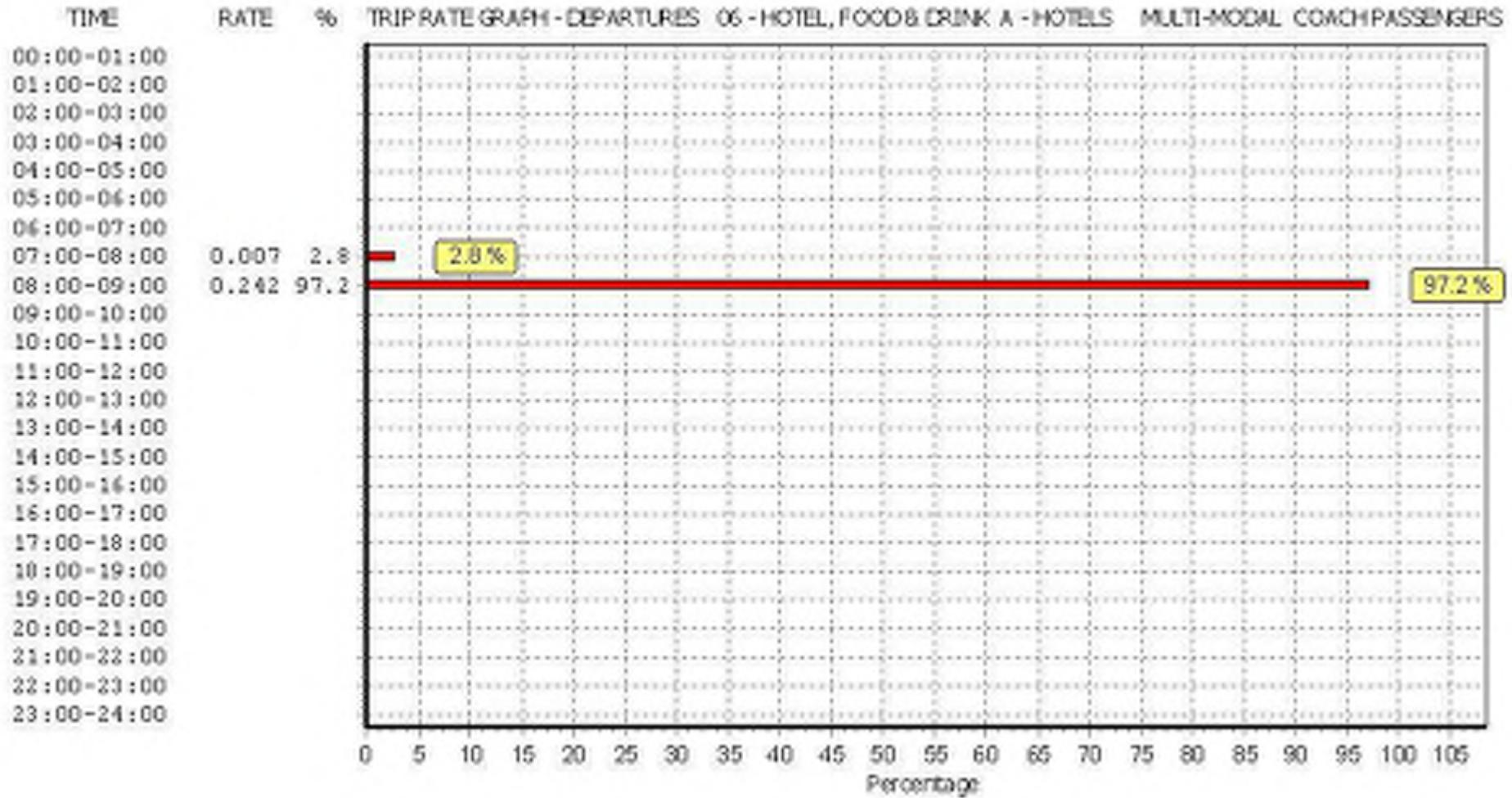
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.007	5	82	0.007	5	82	0.014
08:00 - 09:00	5	82	0.000	5	82	0.242	5	82	0.242
09:00 - 10:00	5	82	0.000	5	82	0.000	5	82	0.000
10:00 - 11:00	5	82	0.000	5	82	0.000	5	82	0.000
11:00 - 12:00	5	82	0.000	5	82	0.000	5	82	0.000
12:00 - 13:00	5	82	0.000	5	82	0.000	5	82	0.000
13:00 - 14:00	5	82	0.000	5	82	0.000	5	82	0.000
14:00 - 15:00	5	82	0.000	5	82	0.000	5	82	0.000
15:00 - 16:00	5	82	0.000	5	82	0.000	5	82	0.000
16:00 - 17:00	5	82	0.000	5	82	0.000	5	82	0.000
17:00 - 18:00	5	82	0.000	5	82	0.000	5	82	0.000
18:00 - 19:00	5	82	0.242	5	82	0.000	5	82	0.242
19:00 - 20:00	5	82	0.000	5	82	0.000	5	82	0.000
20:00 - 21:00	5	82	0.000	5	82	0.000	5	82	0.000
21:00 - 22:00	5	82	0.000	5	82	0.000	5	82	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.249			0.249			0.498

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

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



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



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



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

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

MULTI-MODAL PUBLIC TRANSPORT USERS

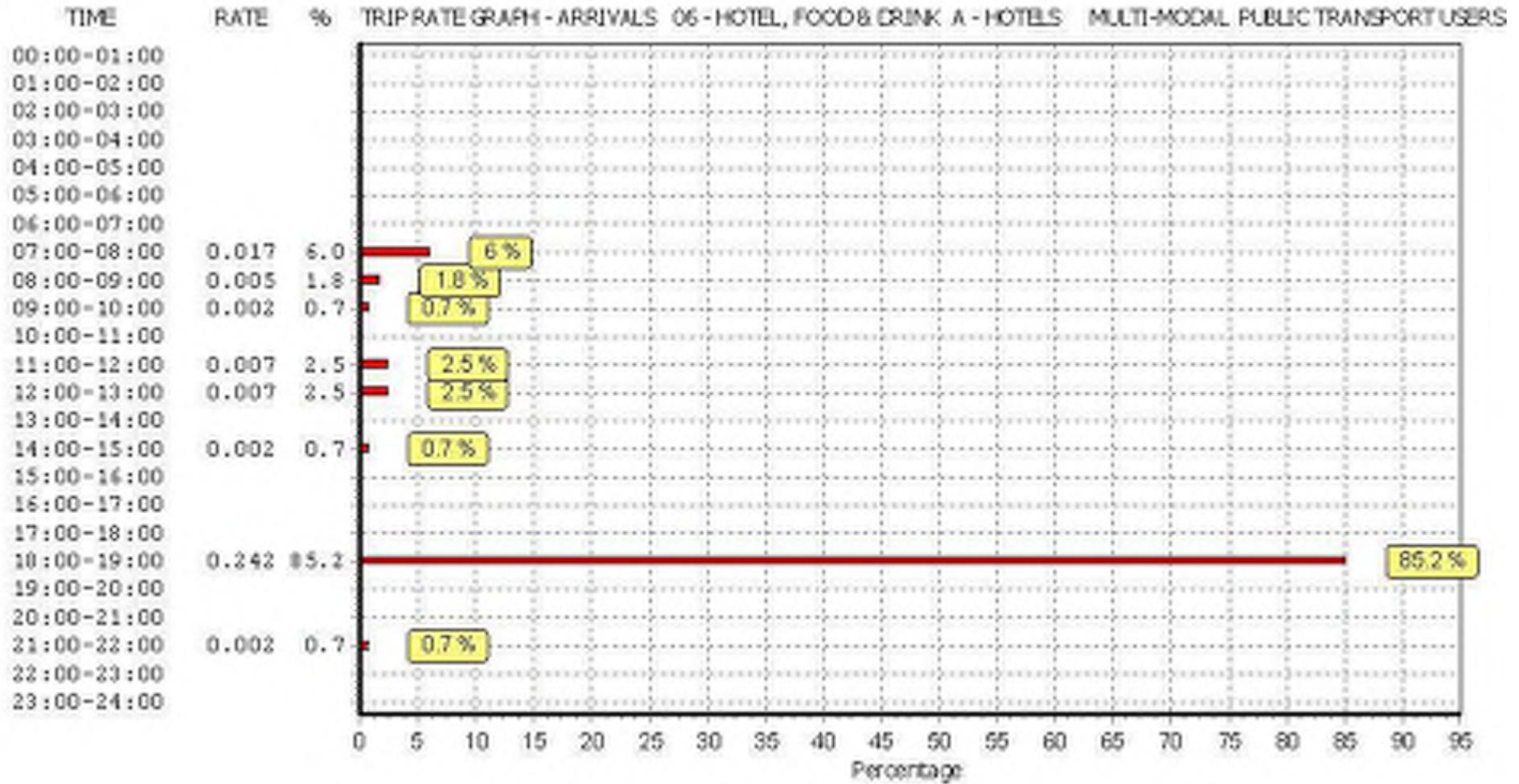
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

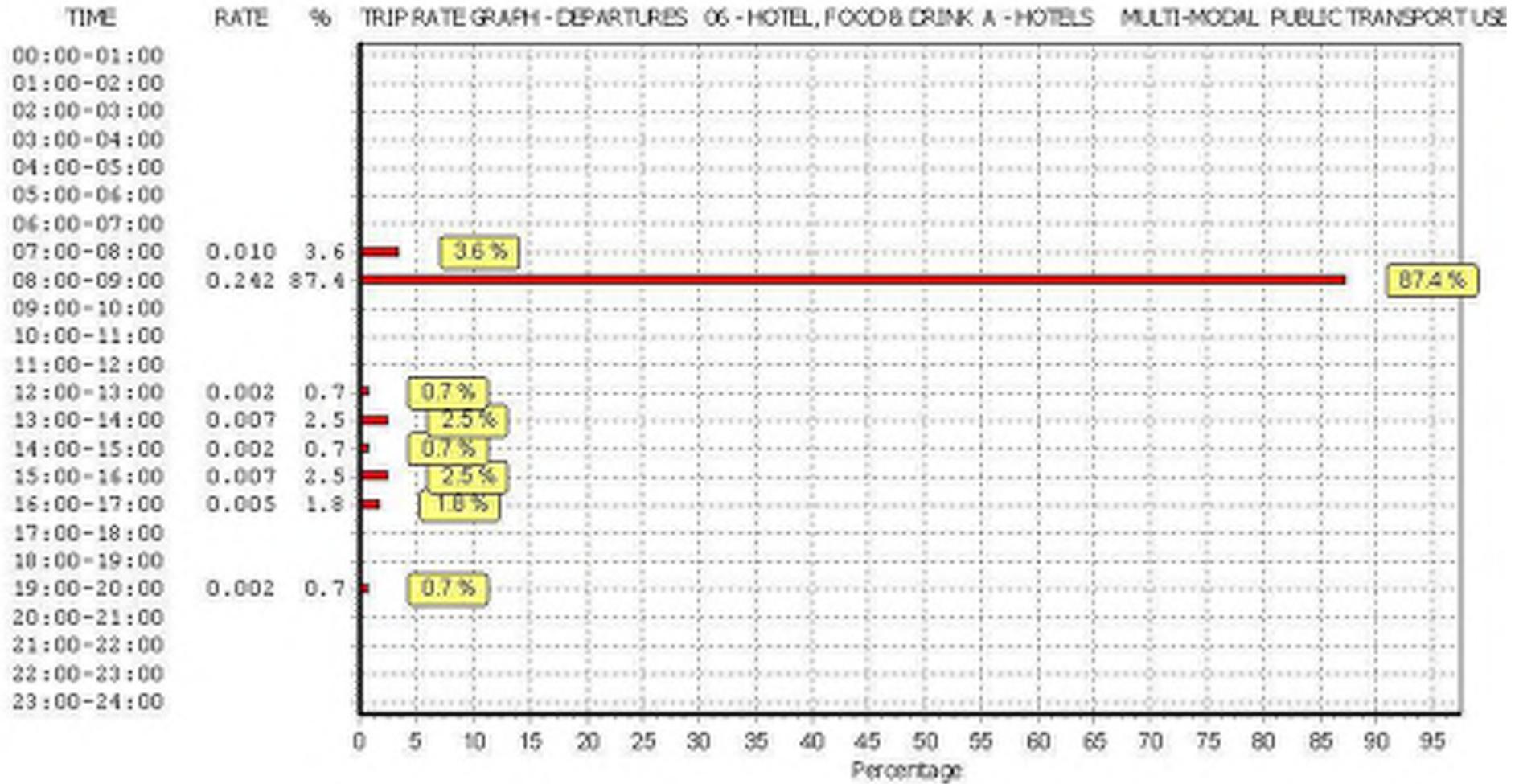
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.017	5	82	0.010	5	82	0.027
08:00 - 09:00	5	82	0.005	5	82	0.242	5	82	0.247
09:00 - 10:00	5	82	0.002	5	82	0.000	5	82	0.002
10:00 - 11:00	5	82	0.000	5	82	0.000	5	82	0.000
11:00 - 12:00	5	82	0.007	5	82	0.000	5	82	0.007
12:00 - 13:00	5	82	0.007	5	82	0.002	5	82	0.009
13:00 - 14:00	5	82	0.000	5	82	0.007	5	82	0.007
14:00 - 15:00	5	82	0.002	5	82	0.002	5	82	0.004
15:00 - 16:00	5	82	0.000	5	82	0.007	5	82	0.007
16:00 - 17:00	5	82	0.000	5	82	0.005	5	82	0.005
17:00 - 18:00	5	82	0.000	5	82	0.000	5	82	0.000
18:00 - 19:00	5	82	0.242	5	82	0.000	5	82	0.242
19:00 - 20:00	5	82	0.000	5	82	0.002	5	82	0.002
20:00 - 21:00	5	82	0.000	5	82	0.000	5	82	0.000
21:00 - 22:00	5	82	0.002	5	82	0.000	5	82	0.002
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.284			0.277			0.561

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

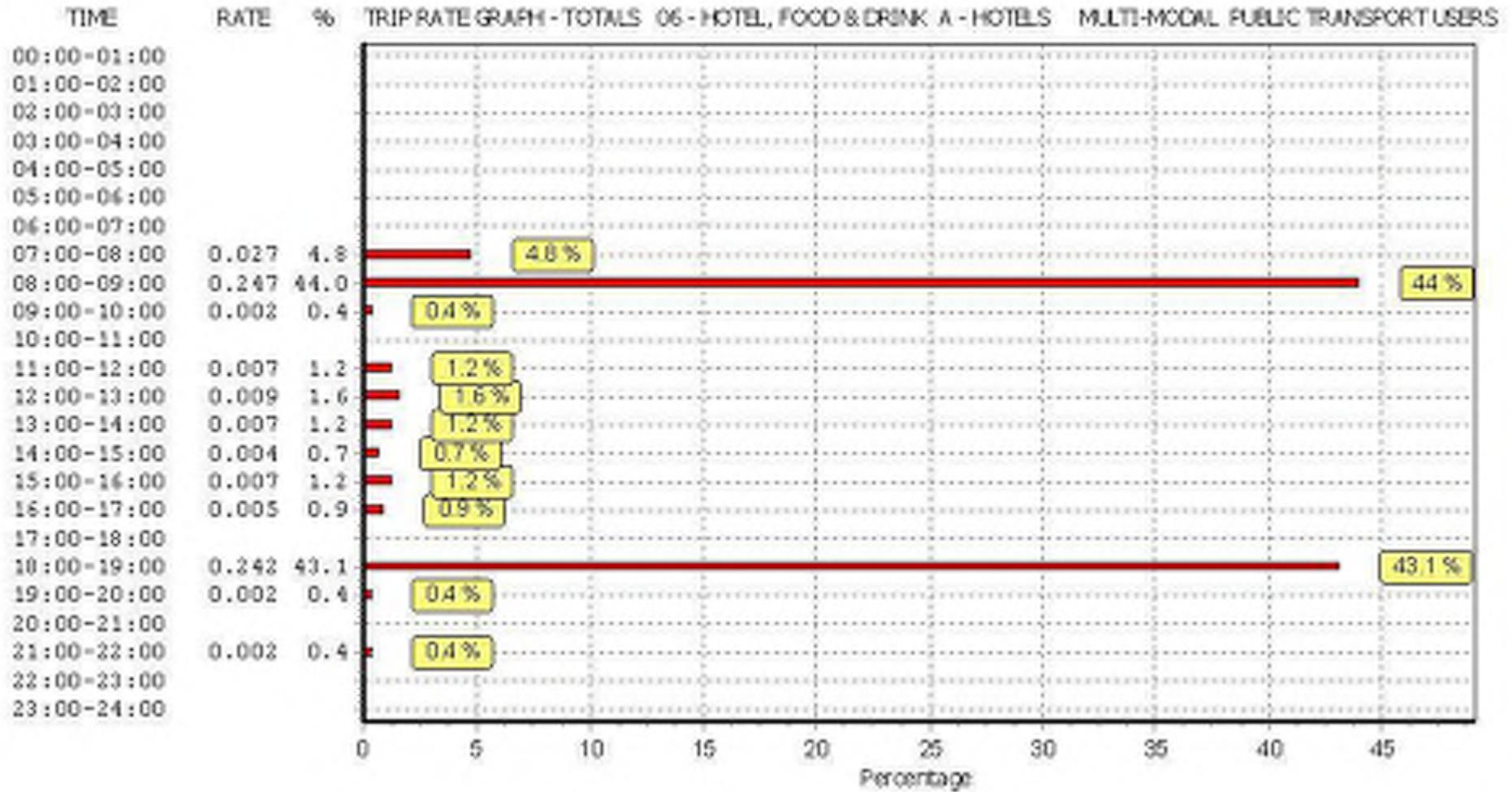
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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



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



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

MULTI-MODAL TOTAL PEOPLE

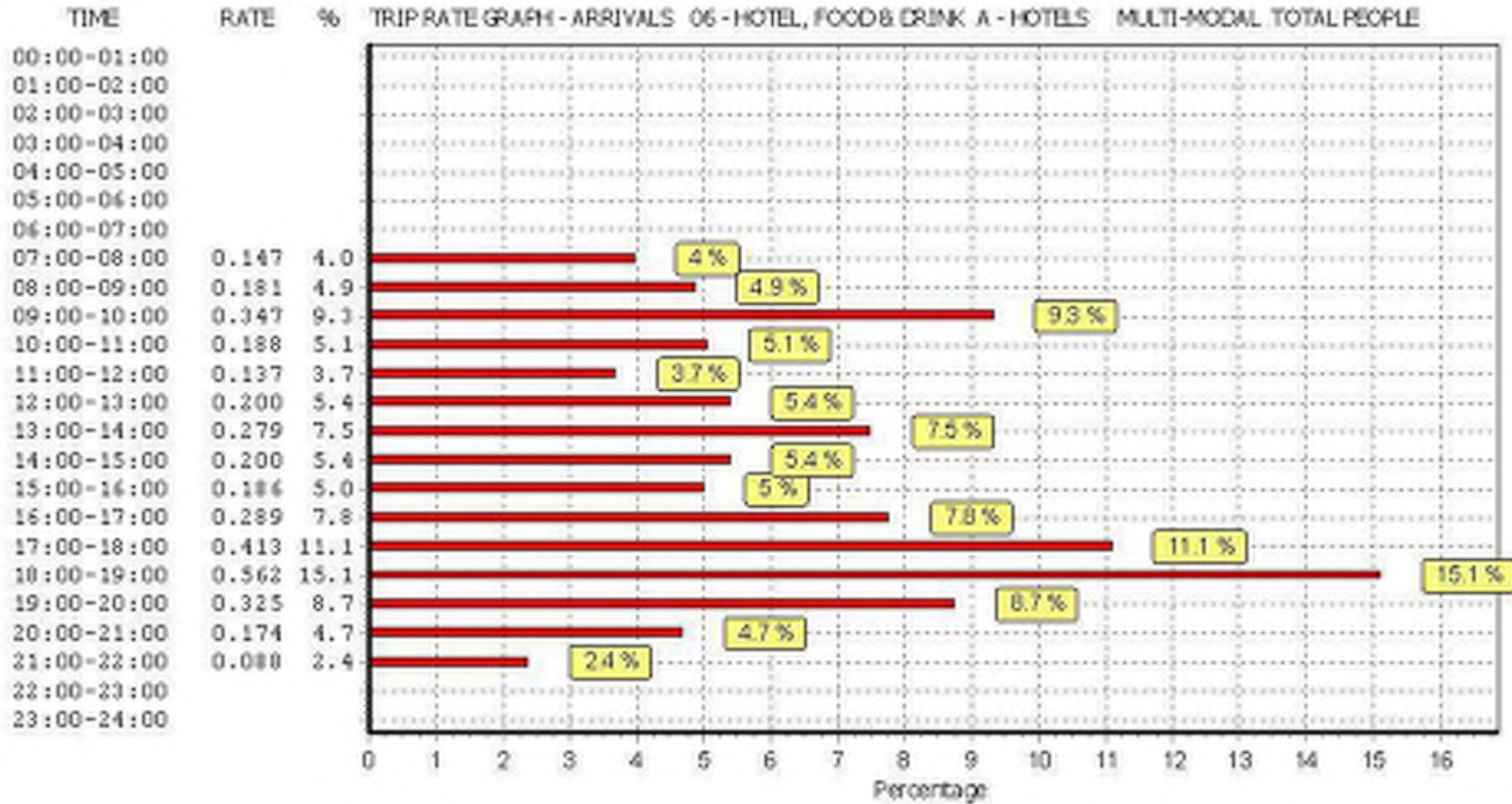
Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

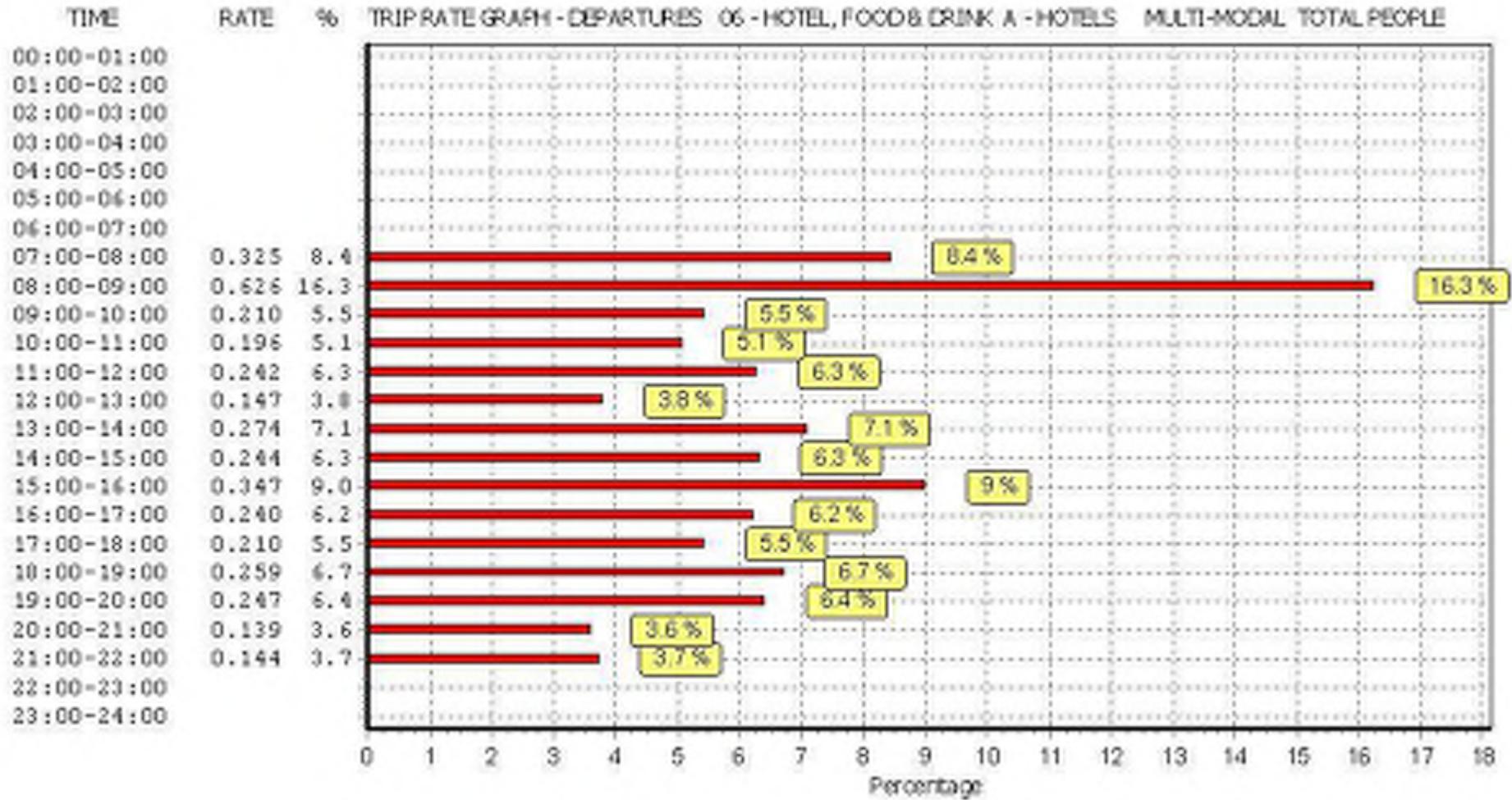
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	82	0.147	5	82	0.325	5	82	0.472
08:00 - 09:00	5	82	0.181	5	82	0.626	5	82	0.807
09:00 - 10:00	5	82	0.347	5	82	0.210	5	82	0.557
10:00 - 11:00	5	82	0.188	5	82	0.196	5	82	0.384
11:00 - 12:00	5	82	0.137	5	82	0.242	5	82	0.379
12:00 - 13:00	5	82	0.200	5	82	0.147	5	82	0.347
13:00 - 14:00	5	82	0.279	5	82	0.274	5	82	0.553
14:00 - 15:00	5	82	0.200	5	82	0.244	5	82	0.444
15:00 - 16:00	5	82	0.186	5	82	0.347	5	82	0.533
16:00 - 17:00	5	82	0.289	5	82	0.240	5	82	0.529
17:00 - 18:00	5	82	0.413	5	82	0.210	5	82	0.623
18:00 - 19:00	5	82	0.562	5	82	0.259	5	82	0.821
19:00 - 20:00	5	82	0.325	5	82	0.247	5	82	0.572
20:00 - 21:00	5	82	0.174	5	82	0.139	5	82	0.313
21:00 - 22:00	5	82	0.088	5	82	0.144	5	82	0.232
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.716			3.850			7.566

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.

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



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



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Appendix F

WARREN INTERCHANGE (SOUTHERN ROUNDABOUT) MODELLING OUTPUTS

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: A110787 190507 A55 Junction Southern.j9
Path: \\CARDIFF31\Data\data\A110000-A110999\A110787 - Warren Hall, Broughton\30 Technical\31 Modelling
Report generation date: 07/05/2019 16:07:46

- »2019 Observed, AM
- »2019 Observed, PM
- »2024 Forecast, AM
- »2024 Forecast, PM
- »2024 + Dev, AM
- »2024 + Dev, PM
- »2024 + Dev + internalisation, AM
- »2024 + Dev + internalisation, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Observed						
1 - A55 off-slip	0.1	2.10	0.05	0.4	3.16	0.28
2 - Lesters Lane	0.2	2.51	0.15	0.1	3.45	0.12
3 - A5104 SW	1.6	7.72	0.62	0.6	4.83	0.36
5 - A5104 link	0.4	2.69	0.27	1.3	4.29	0.56
2024 Forecast						
1 - A55 off-slip	0.1	2.12	0.05	0.4	3.29	0.29
2 - Lesters Lane	0.2	2.55	0.15	0.1	3.57	0.13
3 - A5104 SW	1.8	8.45	0.65	0.6	5.03	0.38
5 - A5104 link	0.4	2.73	0.28	1.4	4.50	0.58
2024 + Dev						
1 - A55 off-slip	0.2	2.72	0.17	0.6	4.16	0.39
2 - Lesters Lane	0.5	3.38	0.33	1.7	8.92	0.63
3 - A5104 SW	10.2	38.64	0.93	1.3	9.11	0.57
5 - A5104 link	0.8	3.62	0.44	1.9	5.67	0.66
2024 + Dev + internalisation						
1 - A55 off-slip	0.2	2.71	0.17	0.6	4.13	0.39
2 - Lesters Lane	0.5	3.37	0.33	1.7	8.81	0.63
3 - A5104 SW	9.2	35.18	0.92	1.3	9.03	0.56
5 - A5104 link	0.8	3.61	0.44	1.9	5.63	0.66

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

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

File summary

File Description

Title	A5 / A5104 Junction Southern
Location	Broughton
Site number	
Date	03/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	A110787
Enumerator	WYG\ben.maliphant
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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Observed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Observed	PM	ONE HOUR	07:45	09:15	15	✓
D3	2024 Forecast	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Forecast	PM	ONE HOUR	07:45	09:15	15	✓
D5	2024 + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 + Dev	PM	ONE HOUR	07:45	09:15	15	✓
D7	2024 + Dev + internalisation	AM	ONE HOUR	07:45	09:15	15	✓
D8	2024 + Dev + internalisation	PM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

2019 Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A55 off-slip - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A5104 SW - 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	A55 / A5104 Junction Southern	Standard Roundabout		1, 2, 3, 4, 5	5.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A55 off-slip	
2	Lesters Lane	
3	A5104 SW	
4	A55 on-slip	
5	A5104 link	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A55 off-slip	4.48	7.61	52.6	25.6	59.8	8.7	
2 - Lesters Lane	3.74	7.74	29.8	17.1	59.8	18.1	
3 - A5104 SW	3.73	4.83	31.0	40.1	59.8	9.5	
4 - A55 on-slip							✓
5 - A5104 link	4.43	7.31	12.8	30.2	59.8	22.8	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A55 off-slip	0.691	2336
2 - Lesters Lane	0.627	2046
3 - A5104 SW	0.560	1566
4 - A55 on-slip		
5 - A5104 link	0.608	1926

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Observed	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 off-slip		ONE HOUR	✓	86	100.000
2 - Lesters Lane		ONE HOUR	✓	226	100.000
3 - A5104 SW		ONE HOUR	✓	696	100.000
4 - A55 on-slip					
5 - A5104 link		ONE HOUR	✓	446	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	11	70	0	5
	2 - Lesters Lane	0	0	1	101	124
	3 - A5104 SW	0	0	1	46	649
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	62	151	233	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	9	10	0	0
	2 - Lesters Lane	0	0	0	0	3
	3 - A5104 SW	0	0	0	0	4
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	6	9	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 off-slip	0.05	2.10	0.1	A	79	118
2 - Lesters Lane	0.15	2.51	0.2	A	207	311
3 - A5104 SW	0.62	7.72	1.6	A	639	958
4 - A55 on-slip						
5 - A5104 link	0.27	2.69	0.4	A	409	614

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	65	16	336	1914	0.034	65	0	0.0	0.0	1.946	A
2 - Lesters Lane	170	43	345	1786	0.095	170	55	0.0	0.1	2.228	A
3 - A5104 SW	524	131	348	1322	0.396	521	167	0.0	0.7	4.484	A
4 - A55 on-slip			584				285				
5 - A5104 link	336	84	0.75	1828	0.184	335	583	0.0	0.2	2.410	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	77	19	402	1870	0.041	77	0	0.0	0.0	2.007	A
2 - Lesters Lane	203	51	413	1741	0.117	203	66	0.1	0.1	2.340	A
3 - A5104 SW	626	156	416	1284	0.487	625	200	0.7	0.9	5.449	A
4 - A55 on-slip			699				341				
5 - A5104 link	401	100	0.90	1828	0.219	401	698	0.2	0.3	2.523	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	95	24	492	1810	0.052	95	0	0.0	0.1	2.098	A
2 - Lesters Lane	249	62	506	1681	0.148	249	80	0.1	0.2	2.513	A
3 - A5104 SW	766	192	509	1232	0.622	764	245	0.9	1.6	7.638	A
4 - A55 on-slip			855				418				
5 - A5104 link	491	123	1	1827	0.269	491	854	0.3	0.4	2.693	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	95	24	492	1810	0.052	95	0	0.1	0.1	2.098	A
2 - Lesters Lane	249	62	506	1681	0.148	249	80	0.2	0.2	2.513	A
3 - A5104 SW	766	192	510	1232	0.622	766	246	1.6	1.6	7.724	A
4 - A55 on-slip			858				418				
5 - A5104 link	491	123	1	1827	0.269	491	857	0.4	0.4	2.693	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	77	19	402	1870	0.041	77	0	0.1	0.0	2.009	A
2 - Lesters Lane	203	51	414	1741	0.117	203	66	0.2	0.1	2.342	A
3 - A5104 SW	626	156	417	1284	0.487	628	201	1.6	1.0	5.515	A
4 - A55 on-slip			703				342				
5 - A5104 link	401	100	0.90	1828	0.219	401	702	0.4	0.3	2.524	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	65	16	337	1913	0.034	65	0	0.0	0.0	1.948	A
2 - Lesters Lane	170	43	347	1785	0.095	170	55	0.1	0.1	2.229	A
3 - A5104 SW	524	131	349	1321	0.397	525	168	1.0	0.7	4.531	A
4 - A55 on-slip			588				286				
5 - A5104 link	336	84	0.75	1828	0.184	336	587	0.3	0.2	2.413	A

2019 Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A55 off-slip - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A5104 SW - 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	A55 / A5104 Junction Southern	Standard Roundabout		1, 2, 3, 4, 5	4.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Observed	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 off-slip		ONE HOUR	✓	393	100.000
2 - Lesters Lane		ONE HOUR	✓	130	100.000
3 - A5104 SW		ONE HOUR	✓	384	100.000
4 - A55 on-slip					
5 - A5104 link		ONE HOUR	✓	969	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	37	322	1	33
	2 - Lesters Lane	0	0	5	49	76
	3 - A5104 SW	0	1	0	27	356
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	121	420	428	0

Vehicle Mix

Heavy Vehicle Percentages

From	To					
	1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link	
1 - A55 off-slip	0	0	1	0	3	
2 - Lesters Lane	0	0	0	2	1	
3 - A5104 SW	0	100	0	0	3	
4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	
5 - A5104 link	0	1	0	2	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 off-slip	0.28	3.16	0.4	A	361	541
2 - Lesters Lane	0.12	3.45	0.1	A	119	179
3 - A5104 SW	0.36	4.83	0.6	A	352	529
4 - A55 on-slip						
5 - A5104 link	0.56	4.29	1.3	A	889	1334

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	296	74	728	1805	0.164	295	0	0.0	0.2	2.383	A
2 - Lesters Lane	98	24	904	1451	0.067	98	119	0.0	0.1	2.659	A
3 - A5104 SW	289	72	440	1282	0.226	288	561	0.0	0.3	3.619	A
4 - A55 on-slip			350				379				
5 - A5104 link	730	182	1	1906	0.383	727	349	0.0	0.6	3.047	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	353	88	871	1706	0.207	353	0	0.2	0.3	2.660	A
2 - Lesters Lane	117	29	1081	1340	0.087	117	143	0.1	0.1	2.942	A
3 - A5104 SW	345	86	527	1234	0.280	345	671	0.3	0.4	4.047	A
4 - A55 on-slip			418				454				
5 - A5104 link	871	218	1	1906	0.457	870	418	0.6	0.8	3.473	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	433	108	1066	1571	0.275	432	0	0.3	0.4	3.158	A
2 - Lesters Lane	143	36	1324	1189	0.120	143	175	0.1	0.1	3.442	A
3 - A5104 SW	423	106	645	1168	0.362	422	821	0.4	0.6	4.821	A
4 - A55 on-slip			512				555				
5 - A5104 link	1067	267	1	1905	0.560	1065	511	0.8	1.3	4.276	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	433	108	1068	1570	0.276	433	0	0.4	0.4	3.164	A
2 - Lesters Lane	143	36	1326	1187	0.121	143	175	0.1	0.1	3.446	A
3 - A5104 SW	423	106	646	1168	0.362	423	822	0.6	0.6	4.832	A
4 - A55 on-slip			513				556				
5 - A5104 link	1067	267	1	1905	0.560	1067	512	1.3	1.3	4.293	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	353	88	874	1704	0.207	354	0	0.4	0.3	2.668	A
2 - Lesters Lane	117	29	1084	1338	0.087	117	143	0.1	0.1	2.947	A
3 - A5104 SW	345	86	529	1233	0.280	346	673	0.6	0.4	4.061	A
4 - A55 on-slip			420				455				
5 - A5104 link	871	218	1	1906	0.457	873	419	1.3	0.8	3.492	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	296	74	731	1803	0.164	296	0	0.3	0.2	2.391	A
2 - Lesters Lane	98	24	907	1449	0.068	98	120	0.1	0.1	2.667	A
3 - A5104 SW	289	72	442	1281	0.226	289	563	0.4	0.3	3.634	A
4 - A55 on-slip			351				381				
5 - A5104 link	730	182	1	1906	0.383	730	351	0.8	0.6	3.064	A

2024 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A55 off-slip - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A5104 SW - 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	A55 / A5104 Junction Southern	Standard Roundabout		1, 2, 3, 4, 5	5.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Forecast	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 off-slip		ONE HOUR	✓	89	100.000
2 - Lesters Lane		ONE HOUR	✓	235	100.000
3 - A5104 SW		ONE HOUR	✓	723	100.000
4 - A55 on-slip					
5 - A5104 link		ONE HOUR	✓	463	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	11	73	0	5
	2 - Lesters Lane	0	0	1	105	129
	3 - A5104 SW	0	0	1	48	674
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	64	157	242	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
1 - A55 off-slip	0	9	10	0	0
2 - Lesters Lane	0	0	0	0	3
3 - A5104 SW	0	0	0	0	4
4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5 - A5104 link	0	6	9	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 off-slip	0.05	2.12	0.1	A	82	123
2 - Lesters Lane	0.15	2.55	0.2	A	215	323
3 - A5104 SW	0.65	8.45	1.8	A	663	995
4 - A55 on-slip						
5 - A5104 link	0.28	2.73	0.4	A	425	637

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	67	17	348	1905	0.035	67	0	0.0	0.0	1.958	A
2 - Lesters Lane	177	44	359	1777	0.099	176	57	0.0	0.1	2.249	A
3 - A5104 SW	544	136	361	1314	0.414	541	174	0.0	0.7	4.640	A
4 - A55 on-slip			606				296				
5 - A5104 link	349	87	0.78	1828	0.191	348	605	0.0	0.2	2.431	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	80	20	417	1860	0.043	80	0	0.0	0.0	2.022	A
2 - Lesters Lane	211	53	429	1731	0.122	211	68	0.1	0.1	2.367	A
3 - A5104 SW	650	162	432	1275	0.509	648	208	0.7	1.0	5.732	A
4 - A55 on-slip			726				354				
5 - A5104 link	416	104	0.93	1827	0.228	416	725	0.2	0.3	2.550	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	98	25	511	1797	0.055	98	0	0.0	0.1	2.118	A
2 - Lesters Lane	258	65	525	1668	0.155	258	83	0.1	0.2	2.553	A
3 - A5104 SW	796	199	529	1221	0.651	792	255	1.0	1.8	8.329	A
4 - A55 on-slip			887				434				
5 - A5104 link	510	127	1	1827	0.279	509	886	0.3	0.4	2.731	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	98	25	511	1797	0.055	98	0	0.1	0.1	2.118	A
2 - Lesters Lane	258	65	526	1668	0.155	258	83	0.2	0.2	2.553	A
3 - A5104 SW	796	199	529	1221	0.651	796	255	1.8	1.8	8.451	A
4 - A55 on-slip			890				434				
5 - A5104 link	510	127	1	1827	0.279	510	889	0.4	0.4	2.731	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	80	20	418	1859	0.043	80	0	0.1	0.0	2.024	A
2 - Lesters Lane	211	53	430	1731	0.122	211	68	0.2	0.1	2.370	A
3 - A5104 SW	650	162	433	1275	0.510	653	208	1.8	1.1	5.818	A
4 - A55 on-slip			730				355				
5 - A5104 link	416	104	0.94	1827	0.228	417	729	0.4	0.3	2.551	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	67	17	350	1905	0.035	67	0	0.0	0.0	1.959	A
2 - Lesters Lane	177	44	360	1776	0.099	177	57	0.1	0.1	2.250	A
3 - A5104 SW	544	136	362	1314	0.414	545	174	1.1	0.7	4.693	A
4 - A55 on-slip			610				297				
5 - A5104 link	349	87	0.78	1828	0.191	349	609	0.3	0.2	2.434	A

2024 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A55 off-slip - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A5104 SW - 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	A55 / A5104 Junction Southern	Standard Roundabout		1, 2, 3, 4, 5	4.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Forecast	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 off-slip		ONE HOUR	✓	408	100.000
2 - Lesters Lane		ONE HOUR	✓	135	100.000
3 - A5104 SW		ONE HOUR	✓	398	100.000
4 - A55 on-slip					
5 - A5104 link		ONE HOUR	✓	1005	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	38	334	1	34
	2 - Lesters Lane	0	0	5	51	79
	3 - A5104 SW	0	1	0	28	369
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	125	436	444	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
1 - A55 off-slip	0	0	1	0	3
2 - Lesters Lane	0	0	0	2	1
3 - A5104 SW	0	100	0	0	3
4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5 - A5104 link	0	1	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 off-slip	0.29	3.29	0.4	A	374	561
2 - Lesters Lane	0.13	3.57	0.1	A	124	186
3 - A5104 SW	0.38	5.03	0.6	A	365	548
4 - A55 on-slip						
5 - A5104 link	0.58	4.50	1.4	A	922	1383

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	307	77	755	1786	0.172	306	0	0.0	0.2	2.430	A
2 - Lesters Lane	101	25	937	1430	0.071	101	124	0.0	0.1	2.708	A
3 - A5104 SW	300	75	457	1273	0.236	299	581	0.0	0.3	3.689	A
4 - A55 on-slip			362				393				
5 - A5104 link	756	189	1	1906	0.397	754	362	0.0	0.7	3.119	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	366	92	903	1684	0.218	366	0	0.2	0.3	2.731	A
2 - Lesters Lane	121	30	1121	1315	0.092	121	148	0.1	0.1	3.014	A
3 - A5104 SW	358	89	547	1223	0.293	358	696	0.3	0.4	4.158	A
4 - A55 on-slip			434				470				
5 - A5104 link	903	226	1	1906	0.474	902	433	0.7	0.9	3.585	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	449	112	1106	1544	0.291	448	0	0.3	0.4	3.282	A
2 - Lesters Lane	148	37	1372	1158	0.128	148	181	0.1	0.1	3.564	A
3 - A5104 SW	438	110	669	1155	0.380	438	852	0.4	0.6	5.013	A
4 - A55 on-slip			531				576				
5 - A5104 link	1106	277	1	1905	0.581	1104	530	0.9	1.4	4.483	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	449	112	1107	1543	0.291	449	0	0.4	0.4	3.289	A
2 - Lesters Lane	148	37	1375	1157	0.128	148	182	0.1	0.1	3.569	A
3 - A5104 SW	438	110	670	1154	0.380	438	853	0.6	0.6	5.027	A
4 - A55 on-slip			532				577				
5 - A5104 link	1106	277	1	1905	0.581	1106	531	1.4	1.4	4.505	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	366	92	906	1682	0.218	367	0	0.4	0.3	2.738	A
2 - Lesters Lane	121	30	1124	1313	0.092	121	149	0.1	0.1	3.023	A
3 - A5104 SW	358	89	548	1222	0.293	359	698	0.6	0.4	4.173	A
4 - A55 on-slip			435				472				
5 - A5104 link	903	226	1	1906	0.474	905	434	1.4	0.9	3.604	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	307	77	758	1784	0.172	307	0	0.3	0.2	2.439	A
2 - Lesters Lane	101	25	941	1428	0.071	102	124	0.1	0.1	2.716	A
3 - A5104 SW	300	75	459	1272	0.236	300	584	0.4	0.3	3.706	A
4 - A55 on-slip			364				395				
5 - A5104 link	756	189	1	1906	0.397	757	363	0.9	0.7	3.136	A

2024 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A55 off-slip - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A5104 SW - 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	A55 / A5104 Junction Southern	Standard Roundabout		1, 2, 3, 4, 5	17.01	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 off-slip		ONE HOUR	✓	254	100.000
2 - Lesters Lane		ONE HOUR	✓	482	100.000
3 - A5104 SW		ONE HOUR	✓	926	100.000
4 - A55 on-slip					
5 - A5104 link		ONE HOUR	✓	705	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	162	86	0	5
	2 - Lesters Lane	0	0	51	197	234
	3 - A5104 SW	0	96	1	73	757
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	292	171	242	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
1 - A55 off-slip	0	5	8	0	0
2 - Lesters Lane	0	0	8	4	6
3 - A5104 SW	0	4	0	0	3
4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5 - A5104 link	0	5	8	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 off-slip	0.17	2.72	0.2	A	233	350
2 - Lesters Lane	0.33	3.38	0.5	A	442	663
3 - A5104 SW	0.93	38.64	10.2	E	850	1275
4 - A55 on-slip						
5 - A5104 link	0.44	3.62	0.8	A	647	971

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	191	48	602	1796	0.106	191	0	0.0	0.1	2.243	A
2 - Lesters Lane	363	91	380	1708	0.212	362	412	0.0	0.3	2.672	A
3 - A5104 SW	697	174	509	1231	0.566	692	233	0.0	1.3	6.616	A
4 - A55 on-slip			818				384				
5 - A5104 link	531	133	72	1792	0.296	529	745	0.0	0.4	2.847	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	228	57	720	1715	0.133	228	0	0.1	0.2	2.421	A
2 - Lesters Lane	433	108	455	1661	0.261	433	494	0.3	0.4	2.932	A
3 - A5104 SW	833	208	609	1175	0.709	828	278	1.3	2.3	10.266	B
4 - A55 on-slip			978				459				
5 - A5104 link	634	159	86	1784	0.355	633	892	0.4	0.5	3.128	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	280	70	879	1606	0.174	279	0	0.2	0.2	2.714	A
2 - Lesters Lane	531	133	557	1596	0.332	530	602	0.4	0.5	3.374	A
3 - A5104 SW	1020	255	746	1098	0.929	994	341	2.3	8.8	29.341	D
4 - A55 on-slip			1179				560				
5 - A5104 link	776	194	104	1773	0.438	776	1075	0.5	0.8	3.605	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	280	70	882	1603	0.174	280	0	0.2	0.2	2.718	A
2 - Lesters Lane	531	133	557	1596	0.332	531	605	0.5	0.5	3.377	A
3 - A5104 SW	1020	255	747	1097	0.929	1014	341	8.8	10.2	38.645	E
4 - A55 on-slip			1198				563				
5 - A5104 link	776	194	106	1772	0.438	776	1092	0.8	0.8	3.615	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	228	57	725	1711	0.133	229	0	0.2	0.2	2.428	A
2 - Lesters Lane	433	108	456	1660	0.261	434	498	0.5	0.4	2.936	A
3 - A5104 SW	833	208	610	1174	0.709	863	279	10.2	2.5	12.651	B
4 - A55 on-slip			1011				463				
5 - A5104 link	634	159	90	1781	0.356	635	921	0.8	0.6	3.144	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	191	48	605	1793	0.107	191	0	0.2	0.1	2.248	A
2 - Lesters Lane	363	91	381	1707	0.213	363	415	0.4	0.3	2.679	A
3 - A5104 SW	697	174	511	1230	0.567	702	233	2.5	1.3	6.880	A
4 - A55 on-slip			827				386				
5 - A5104 link	531	133	73	1792	0.296	531	754	0.6	0.4	2.857	A

2024 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A55 off-slip - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A5104 SW - 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	A55 / A5104 Junction Southern	Standard Roundabout		1, 2, 3, 4, 5	6.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Dev	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 off-slip		ONE HOUR	✓	500	100.000
2 - Lesters Lane		ONE HOUR	✓	637	100.000
3 - A5104 SW		ONE HOUR	✓	468	100.000
4 - A55 on-slip					
5 - A5104 link		ONE HOUR	✓	1127	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	93	371	1	34
	2 - Lesters Lane	0	0	106	237	293
	3 - A5104 SW	0	36	0	36	396
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	208	475	444	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
1 - A55 off-slip	0	3	1	0	3
2 - Lesters Lane	0	0	2	2	2
3 - A5104 SW	0	8	0	0	2
4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5 - A5104 link	0	3	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 off-slip	0.39	4.16	0.6	A	459	688
2 - Lesters Lane	0.63	8.92	1.7	A	584	876
3 - A5104 SW	0.57	9.11	1.3	A	429	644
4 - A55 on-slip						
5 - A5104 link	0.66	5.67	1.9	A	1034	1552

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	376	94	872	1697	0.222	375	0	0.0	0.3	2.720	A
2 - Lesters Lane	479	120	994	1394	0.344	477	253	0.0	0.5	3.917	A
3 - A5104 SW	352	88	757	1106	0.318	350	715	0.0	0.5	4.749	A
4 - A55 on-slip			568				539				
5 - A5104 link	849	212	27	1884	0.450	845	542	0.0	0.8	3.457	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	449	112	1044	1578	0.285	449	0	0.3	0.4	3.185	A
2 - Lesters Lane	572	143	1190	1272	0.450	571	303	0.5	0.8	5.128	A
3 - A5104 SW	420	105	906	1024	0.411	420	856	0.5	0.7	5.950	A
4 - A55 on-slip			681				645				
5 - A5104 link	1013	253	32	1881	0.539	1012	648	0.8	1.2	4.138	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	550	138	1278	1417	0.388	549	0	0.4	0.6	4.143	A
2 - Lesters Lane	701	175	1456	1106	0.634	697	371	0.8	1.7	8.738	A
3 - A5104 SW	515	129	1107	912	0.565	513	1047	0.7	1.3	8.960	A
4 - A55 on-slip			832				788				
5 - A5104 link	1241	310	39	1876	0.662	1238	792	1.2	1.9	5.617	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	550	138	1281	1415	0.389	550	0	0.6	0.6	4.162	A
2 - Lesters Lane	701	175	1459	1104	0.635	701	372	1.7	1.7	8.922	A
3 - A5104 SW	515	129	1111	910	0.566	515	1049	1.3	1.3	9.111	A
4 - A55 on-slip			835				791				
5 - A5104 link	1241	310	40	1876	0.662	1241	796	1.9	1.9	5.669	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	449	112	1049	1575	0.285	450	0	0.6	0.4	3.202	A
2 - Lesters Lane	572	143	1195	1269	0.451	576	304	1.7	0.8	5.220	A
3 - A5104 SW	420	105	911	1021	0.412	423	859	1.3	0.7	6.044	A
4 - A55 on-slip			686				648				
5 - A5104 link	1013	253	32	1880	0.539	1016	653	1.9	1.2	4.180	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	376	94	877	1694	0.222	377	0	0.4	0.3	2.734	A
2 - Lesters Lane	479	120	999	1391	0.345	480	255	0.8	0.5	3.958	A
3 - A5104 SW	352	88	761	1104	0.319	353	719	0.7	0.5	4.800	A
4 - A55 on-slip			573				542				
5 - A5104 link	849	212	27	1884	0.451	850	546	1.2	0.8	3.488	A

2024 + Dev + internalisation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A55 off-slip - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A5104 SW - 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	A55 / A5104 Junction Southern	Standard Roundabout		1, 2, 3, 4, 5	15.59	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + Dev + internalisation	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 off-slip		ONE HOUR	✓	253	100.000
2 - Lesters Lane		ONE HOUR	✓	482	100.000
3 - A5104 SW		ONE HOUR	✓	915	100.000
4 - A55 on-slip					
5 - A5104 link		ONE HOUR	✓	704	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	162	85	0	5
	2 - Lesters Lane	0	0	51	197	234
	3 - A5104 SW	0	96	1	70	749
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	292	170	242	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
1 - A55 off-slip	0	5	8	0	0
2 - Lesters Lane	0	0	8	4	6
3 - A5104 SW	0	4	0	0	3
4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5 - A5104 link	0	5	8	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 off-slip	0.17	2.71	0.2	A	232	348
2 - Lesters Lane	0.33	3.37	0.5	A	442	663
3 - A5104 SW	0.92	35.18	9.2	E	840	1260
4 - A55 on-slip						
5 - A5104 link	0.44	3.61	0.8	A	646	969

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	190	48	600	1797	0.106	190	0	0.0	0.1	2.240	A
2 - Lesters Lane	363	91	378	1709	0.212	362	412	0.0	0.3	2.669	A
3 - A5104 SW	689	172	509	1231	0.560	684	230	0.0	1.3	6.523	A
4 - A55 on-slip			811				382				
5 - A5104 link	530	132	72	1792	0.296	528	739	0.0	0.4	2.844	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	227	57	719	1716	0.132	227	0	0.1	0.2	2.417	A
2 - Lesters Lane	433	108	452	1662	0.261	433	494	0.3	0.4	2.928	A
3 - A5104 SW	823	206	609	1175	0.701	819	276	1.3	2.3	10.003	B
4 - A55 on-slip			971				457				
5 - A5104 link	633	158	87	1784	0.355	632	885	0.4	0.5	3.124	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	278	70	878	1607	0.173	278	0	0.2	0.2	2.709	A
2 - Lesters Lane	531	133	553	1599	0.332	530	603	0.4	0.5	3.367	A
3 - A5104 SW	1008	252	746	1098	0.918	985	338	2.3	8.1	27.530	D
4 - A55 on-slip			1172				558				
5 - A5104 link	775	194	104	1773	0.437	774	1068	0.5	0.8	3.599	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	278	70	881	1605	0.173	278	0	0.2	0.2	2.713	A
2 - Lesters Lane	531	133	554	1598	0.332	531	605	0.5	0.5	3.371	A
3 - A5104 SW	1008	252	747	1097	0.919	1003	338	8.1	9.2	35.176	E
4 - A55 on-slip			1190				560				
5 - A5104 link	775	194	106	1772	0.437	775	1084	0.8	0.8	3.609	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	227	57	723	1713	0.133	227	0	0.2	0.2	2.423	A
2 - Lesters Lane	433	108	453	1662	0.261	434	498	0.5	0.4	2.932	A
3 - A5104 SW	823	206	610	1174	0.701	850	276	9.2	2.4	11.978	B
4 - A55 on-slip			1000				460				
5 - A5104 link	633	158	90	1782	0.355	634	911	0.8	0.6	3.137	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	190	48	604	1795	0.106	190	0	0.2	0.1	2.245	A
2 - Lesters Lane	363	91	379	1708	0.212	363	415	0.4	0.3	2.676	A
3 - A5104 SW	689	172	511	1230	0.560	694	231	2.4	1.3	6.769	A
4 - A55 on-slip			821				384				
5 - A5104 link	530	132	73	1792	0.296	530	748	0.6	0.4	2.854	A

2024 + Dev + internalisation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A55 off-slip - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A5104 SW - 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	A55 / A5104 Junction Southern	Standard Roundabout		1, 2, 3, 4, 5	6.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + Dev + internalisation	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 off-slip		ONE HOUR	✓	496	100.000
2 - Lesters Lane		ONE HOUR	✓	637	100.000
3 - A5104 SW		ONE HOUR	✓	464	100.000
4 - A55 on-slip					
5 - A5104 link		ONE HOUR	✓	1123	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
From	1 - A55 off-slip	0	93	368	1	34
	2 - Lesters Lane	0	0	106	237	293
	3 - A5104 SW	0	36	0	35	393
	4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5 - A5104 link	0	208	471	444	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - A55 off-slip	2 - Lesters Lane	3 - A5104 SW	4 - A55 on-slip	5 - A5104 link
1 - A55 off-slip	0	3	1	0	3
2 - Lesters Lane	0	0	2	2	2
3 - A5104 SW	0	8	0	0	2
4 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5 - A5104 link	0	3	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 off-slip	0.39	4.13	0.6	A	455	683
2 - Lesters Lane	0.63	8.81	1.7	A	584	876
3 - A5104 SW	0.56	9.03	1.3	A	426	639
4 - A55 on-slip						
5 - A5104 link	0.66	5.63	1.9	A	1031	1546

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	374	93	869	1699	0.220	372	0	0.0	0.3	2.711	A
2 - Lesters Lane	479	120	989	1398	0.343	477	253	0.0	0.5	3.902	A
3 - A5104 SW	350	87	757	1106	0.316	348	709	0.0	0.5	4.733	A
4 - A55 on-slip			566				538				
5 - A5104 link	846	211	27	1884	0.449	843	540	0.0	0.8	3.447	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	446	112	1041	1581	0.282	446	0	0.3	0.4	3.169	A
2 - Lesters Lane	572	143	1183	1276	0.448	571	303	0.5	0.8	5.097	A
3 - A5104 SW	417	104	906	1024	0.408	416	849	0.5	0.7	5.920	A
4 - A55 on-slip			678				644				
5 - A5104 link	1010	252	32	1881	0.537	1009	646	0.8	1.1	4.121	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	546	137	1273	1420	0.385	545	0	0.4	0.6	4.110	A
2 - Lesters Lane	701	175	1448	1111	0.631	697	371	0.8	1.7	8.629	A
3 - A5104 SW	511	128	1107	912	0.560	509	1038	0.7	1.2	8.880	A
4 - A55 on-slip			829				787				
5 - A5104 link	1237	309	39	1876	0.659	1234	789	1.1	1.9	5.579	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	546	137	1276	1418	0.385	546	0	0.6	0.6	4.128	A
2 - Lesters Lane	701	175	1451	1109	0.632	701	372	1.7	1.7	8.808	A
3 - A5104 SW	511	128	1111	910	0.562	511	1041	1.2	1.3	9.025	A
4 - A55 on-slip			832				790				
5 - A5104 link	1237	309	40	1876	0.659	1237	793	1.9	1.9	5.631	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	446	112	1045	1578	0.283	447	0	0.6	0.4	3.185	A
2 - Lesters Lane	572	143	1188	1273	0.449	576	304	1.7	0.8	5.187	A
3 - A5104 SW	417	104	911	1021	0.409	420	852	1.3	0.7	6.012	A
4 - A55 on-slip			683				648				
5 - A5104 link	1010	252	32	1880	0.537	1013	651	1.9	1.2	4.163	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 off-slip	374	93	874	1696	0.220	374	0	0.4	0.3	2.726	A
2 - Lesters Lane	479	120	994	1395	0.344	480	255	0.8	0.5	3.942	A
3 - A5104 SW	350	87	761	1104	0.317	350	713	0.7	0.5	4.784	A
4 - A55 on-slip			571				541				
5 - A5104 link	846	211	27	1884	0.449	847	544	1.2	0.8	3.476	A



Appendix G

WARREN INTERCHANGE (NORTHERN ROUNDABOUT) MODELLING OUTPUTS

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: A110787 190507 A55 Junction Northern.j9
Path: \\CARDIFF31\Data\data\A110000-A110999\A110787 - Warren Hall, Broughton\30 Technical\31 Modelling
Report generation date: 07/05/2019 16:05:45

- »2019 Observed, AM
- »2019 Observed, PM
- »2024 Forecast, AM
- »2024 Forecast, PM
- »2024 with Development, AM
- »2024 with Development, PM
- »2024 with Development and internalisation, AM
- »2024 with Development and internalisation, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Observed						
2 - A5104 Link	1.3	5.38	0.56	0.5	3.46	0.33
3 - A55 off-slip	0.4	3.74	0.30	0.5	3.16	0.31
4 - A5104 Northeastern	0.9	6.00	0.48	3.0	10.74	0.75
2024 Forecast						
2 - A5104 Link	1.4	5.66	0.58	0.5	3.53	0.34
3 - A55 off-slip	0.5	3.91	0.32	0.5	3.26	0.33
4 - A5104 Northeastern	1.0	6.34	0.50	3.5	12.28	0.78
2024 with Development						
2 - A5104 Link	2.6	8.45	0.72	1.0	4.73	0.51
3 - A55 off-slip	1.1	6.47	0.53	0.8	4.44	0.44
4 - A5104 Northeastern	2.2	12.68	0.69	12.4	43.19	0.95
2024 with Development and internalisation						
2 - A5104 Link	2.5	8.27	0.72	1.0	4.71	0.51
3 - A55 off-slip	1.1	6.39	0.53	0.8	4.42	0.44
4 - A5104 Northeastern	2.2	12.47	0.69	11.8	41.46	0.94

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

File summary

File Description

Title	A55 Junction Northern
Location	Broughton
Site number	
Date	03/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	A110787
Enumerator	WYG/ben.maliphant
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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Observed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Observed	PM	ONE HOUR	07:45	09:15	15	✓
D3	2024 Forecast	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Forecast	PM	ONE HOUR	07:45	09:15	15	✓
D5	2024 with Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 with Development	PM	ONE HOUR	07:45	09:15	15	✓
D7	2024 with Development and internalisation	AM	ONE HOUR	07:45	09:15	15	✓
D8	2024 with Development and internalisation	PM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

2019 Observed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A55 Junction Northern	Standard Roundabout		1, 2, 3, 4	5.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A55 on-slip	
2	A5104 Link	
3	A55 off-slip	
4	A5104 Northeastern	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A55 on-slip							✓
2 - A5104 Link	3.26	6.90	11.2	25.0	50.0	21.1	
3 - A55 off-slip	5.62	7.21	13.6	31.7	25.2	32.9	
4 - A5104 Northeastern	4.38	4.92	2.6	20.3	25.2	14.3	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A55 on-slip		
2 - A5104 Link	0.600	1591
3 - A55 off-slip	0.740	2070
4 - A5104 Northeastern	0.639	1504

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Observed	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 on-slip					
2 - A5104 Link		ONE HOUR	✓	784	100.000
3 - A55 off-slip		ONE HOUR	✓	371	100.000
4 - A5104 Northeastern		ONE HOUR	✓	504	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
	1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern	
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	372	0	0	412
	3 - A55 off-slip	1	35	0	335
	4 - A5104 Northeastern	87	411	0	6

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern	
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	3	0	0	4
	3 - A55 off-slip	0	3	0	2
	4 - A5104 Northeastern	1	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 on-slip						
2 - A5104 Link	0.56	5.38	1.3	A	719	1079
3 - A55 off-slip	0.30	3.74	0.4	A	340	511
4 - A5104 Northeastern	0.48	6.00	0.9	A	462	694

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			339				345				
2 - A5104 Link	590	148	4	1534	0.385	588	334	0.0	0.6	3.797	A
3 - A55 off-slip	279	70	592	1577	0.177	278	0	0.0	0.2	2.770	A
4 - A5104 Northeastern	379	95	306	1244	0.305	378	565	0.0	0.4	4.146	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			406				413				
2 - A5104 Link	705	176	5	1533	0.460	704	400	0.6	0.8	4.337	A
3 - A55 off-slip	334	83	709	1490	0.224	333	0	0.2	0.3	3.112	A
4 - A5104 Northeastern	453	113	366	1206	0.376	452	676	0.4	0.6	4.771	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			497				505				
2 - A5104 Link	863	216	7	1532	0.563	861	490	0.8	1.3	5.351	A
3 - A55 off-slip	408	102	868	1371	0.298	408	0	0.3	0.4	3.736	A
4 - A5104 Northeastern	555	139	448	1155	0.480	554	828	0.6	0.9	5.974	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			498				506				
2 - A5104 Link	863	216	7	1532	0.563	863	491	1.3	1.3	5.379	A
3 - A55 off-slip	408	102	870	1370	0.298	408	0	0.4	0.4	3.744	A
4 - A5104 Northeastern	555	139	449	1155	0.481	555	829	0.9	0.9	6.003	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			407				415				
2 - A5104 Link	705	176	5	1533	0.460	706	402	1.3	0.9	4.365	A
3 - A55 off-slip	334	83	712	1488	0.224	334	0	0.4	0.3	3.120	A
4 - A5104 Northeastern	453	113	368	1206	0.376	454	678	0.9	0.6	4.799	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			341				347				
2 - A5104 Link	590	148	5	1534	0.385	591	336	0.9	0.6	3.822	A
3 - A55 off-slip	279	70	596	1575	0.177	280	0	0.3	0.2	2.781	A
4 - A5104 Northeastern	379	95	308	1243	0.305	380	568	0.6	0.4	4.174	A

2019 Observed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A55 Junction Northern	Standard Roundabout		1, 2, 3, 4	6.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Observed	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 on-slip					
2 - A5104 Link		ONE HOUR	✓	465	100.000
3 - A55 off-slip		ONE HOUR	✓	475	100.000
4 - A5104 Northeastern		ONE HOUR	✓	924	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	114	0	0	351
	3 - A55 off-slip	1	74	0	400
	4 - A5104 Northeastern	35	885	0	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	4	0	0	2
	3 - A55 off-slip	0	3	0	1
	4 - A5104 Northeastern	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 on-slip						
2 - A5104 Link	0.33	3.46	0.5	A	427	640
3 - A55 off-slip	0.31	3.16	0.5	A	436	654
4 - A5104 Northeastern	0.75	10.74	3.0	B	848	1272

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			721				112				
2 - A5104 Link	350	88	3	1553	0.225	349	718	0.0	0.3	2.988	A
3 - A55 off-slip	358	89	352	1784	0.200	357	0	0.0	0.2	2.520	A
4 - A5104 Northeastern	696	174	142	1395	0.499	692	567	0.0	1.0	5.090	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			864				135				
2 - A5104 Link	418	105	4	1552	0.269	418	860	0.3	0.4	3.173	A
3 - A55 off-slip	427	107	421	1732	0.247	427	0	0.2	0.3	2.757	A
4 - A5104 Northeastern	831	208	170	1377	0.603	829	678	1.0	1.5	6.542	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1055				165				
2 - A5104 Link	512	128	4	1552	0.330	511	1050	0.4	0.5	3.458	A
3 - A55 off-slip	523	131	516	1661	0.315	522	0	0.3	0.5	3.159	A
4 - A5104 Northeastern	1017	254	208	1352	0.753	1012	830	1.5	2.9	10.412	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1060				165				
2 - A5104 Link	512	128	4	1552	0.330	512	1056	0.5	0.5	3.461	A
3 - A55 off-slip	523	131	516	1661	0.315	523	0	0.5	0.5	3.162	A
4 - A5104 Northeastern	1017	254	208	1352	0.753	1017	831	2.9	3.0	10.738	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			871				135				
2 - A5104 Link	418	105	4	1552	0.269	419	868	0.5	0.4	3.178	A
3 - A55 off-slip	427	107	422	1732	0.247	428	0	0.5	0.3	2.763	A
4 - A5104 Northeastern	831	208	170	1377	0.603	836	680	3.0	1.5	6.734	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			727				113				
2 - A5104 Link	350	88	3	1553	0.225	350	724	0.4	0.3	2.994	A
3 - A55 off-slip	358	89	353	1783	0.201	358	0	0.3	0.3	2.525	A
4 - A5104 Northeastern	696	174	142	1395	0.499	698	569	1.5	1.0	5.181	A

2024 Forecast, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A55 Junction Northern	Standard Roundabout		1, 2, 3, 4	5.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Forecast	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 on-slip					
2 - A5104 Link		ONE HOUR	✓	814	100.000
3 - A55 off-slip		ONE HOUR	✓	385	100.000
4 - A5104 Northeastern		ONE HOUR	✓	523	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	386	0	0	428
	3 - A55 off-slip	1	36	0	348
	4 - A5104 Northeastern	90	427	0	6

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	3	0	0	4
	3 - A55 off-slip	0	3	0	2
	4 - A5104 Northeastern	1	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 on-slip						
2 - A5104 Link	0.58	5.66	1.4	A	747	1120
3 - A55 off-slip	0.32	3.91	0.5	A	353	530
4 - A5104 Northeastern	0.50	6.34	1.0	A	480	720

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			352				358				
2 - A5104 Link	613	153	5	1534	0.400	610	347	0.0	0.7	3.888	A
3 - A55 off-slip	290	72	615	1561	0.186	289	0	0.0	0.2	2.830	A
4 - A5104 Northeastern	394	98	318	1237	0.319	392	586	0.0	0.5	4.252	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			421				429				
2 - A5104 Link	732	183	6	1533	0.477	731	416	0.7	0.9	4.482	A
3 - A55 off-slip	346	87	736	1470	0.236	346	0	0.2	0.3	3.204	A
4 - A5104 Northeastern	470	118	380	1198	0.393	470	702	0.5	0.6	4.940	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			515				525				
2 - A5104 Link	896	224	7	1532	0.585	894	509	0.9	1.4	5.626	A
3 - A55 off-slip	424	106	901	1346	0.315	424	0	0.3	0.5	3.899	A
4 - A5104 Northeastern	576	144	465	1144	0.503	575	859	0.6	1.0	6.302	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			517				526				
2 - A5104 Link	896	224	7	1532	0.585	896	510	1.4	1.4	5.659	A
3 - A55 off-slip	424	106	903	1345	0.315	424	0	0.5	0.5	3.909	A
4 - A5104 Northeastern	576	144	466	1144	0.504	576	861	1.0	1.0	6.341	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			423				431				
2 - A5104 Link	732	183	6	1533	0.477	734	418	1.4	0.9	4.514	A
3 - A55 off-slip	346	87	739	1467	0.236	347	0	0.5	0.3	3.213	A
4 - A5104 Northeastern	470	118	382	1197	0.393	472	704	1.0	0.7	4.977	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			354				360				
2 - A5104 Link	613	153	5	1534	0.400	614	349	0.9	0.7	3.918	A
3 - A55 off-slip	290	72	619	1558	0.186	290	0	0.3	0.2	2.840	A
4 - A5104 Northeastern	394	98	319	1236	0.319	395	589	0.7	0.5	4.285	A

2024 Forecast, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A55 Junction Northern	Standard Roundabout		1, 2, 3, 4	7.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Forecast	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 on-slip					
2 - A5104 Link		ONE HOUR	✓	482	100.000
3 - A55 off-slip		ONE HOUR	✓	493	100.000
4 - A5104 Northeastern		ONE HOUR	✓	958	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	118	0	0	364
	3 - A55 off-slip	1	77	0	415
	4 - A5104 Northeastern	36	918	0	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	4	0	0	2
	3 - A55 off-slip	0	3	0	1
	4 - A5104 Northeastern	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 on-slip						
2 - A5104 Link	0.34	3.53	0.5	A	442	664
3 - A55 off-slip	0.33	3.26	0.5	A	452	678
4 - A5104 Northeastern	0.78	12.28	3.5	B	879	1319

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			748				117				
2 - A5104 Link	363	91	3	1552	0.234	362	744	0.0	0.3	3.021	A
3 - A55 off-slip	371	93	365	1775	0.209	370	0	0.0	0.3	2.562	A
4 - A5104 Northeastern	721	180	147	1392	0.518	717	588	0.0	1.1	5.305	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			895				140				
2 - A5104 Link	433	108	4	1552	0.279	433	892	0.3	0.4	3.217	A
3 - A55 off-slip	443	111	437	1721	0.257	442	0	0.3	0.3	2.816	A
4 - A5104 Northeastern	861	215	176	1373	0.628	859	703	1.1	1.7	6.976	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1093				171				
2 - A5104 Link	531	133	5	1552	0.342	530	1088	0.4	0.5	3.523	A
3 - A55 off-slip	542	136	535	1647	0.329	542	0	0.3	0.5	3.255	A
4 - A5104 Northeastern	1055	264	216	1347	0.783	1048	861	1.7	3.4	11.771	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1099				171				
2 - A5104 Link	531	133	5	1552	0.342	531	1095	0.5	0.5	3.525	A
3 - A55 off-slip	542	136	535	1647	0.329	542	0	0.5	0.5	3.258	A
4 - A5104 Northeastern	1055	264	216	1347	0.783	1055	862	3.4	3.5	12.281	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			905				140				
2 - A5104 Link	433	108	4	1552	0.279	434	901	0.5	0.4	3.222	A
3 - A55 off-slip	443	111	438	1720	0.257	443	0	0.5	0.3	2.822	A
4 - A5104 Northeastern	861	215	176	1372	0.628	869	705	3.5	1.7	7.241	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			754				117				
2 - A5104 Link	363	91	3	1552	0.234	363	751	0.4	0.3	3.029	A
3 - A55 off-slip	371	93	366	1773	0.209	371	0	0.3	0.3	2.569	A
4 - A5104 Northeastern	721	180	148	1391	0.518	724	590	1.7	1.1	5.416	A

2024 with Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A55 Junction Northern	Standard Roundabout		1, 2, 3, 4	9.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 with Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 on-slip					
2 - A5104 Link		ONE HOUR	✓	1002	100.000
3 - A55 off-slip		ONE HOUR	✓	568	100.000
4 - A5104 Northeastern		ONE HOUR	✓	583	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	517	0	0	485
	3 - A55 off-slip	1	219	0	348
	4 - A5104 Northeastern	90	486	0	6

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	3	0	0	4
	3 - A55 off-slip	0	4	0	2
	4 - A5104 Northeastern	1	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 on-slip						
2 - A5104 Link	0.72	8.45	2.6	A	920	1380
3 - A55 off-slip	0.53	6.47	1.1	A	521	782
4 - A5104 Northeastern	0.69	12.68	2.2	B	535	802

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			533				456				
2 - A5104 Link	755	189	5	1531	0.493	751	528	0.0	1.0	4.596	A
3 - A55 off-slip	428	107	756	1446	0.296	426	0	0.0	0.4	3.522	A
4 - A5104 Northeastern	439	110	553	1088	0.403	436	629	0.0	0.7	5.497	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			638				546				
2 - A5104 Link	901	225	6	1530	0.589	899	632	1.0	1.4	5.692	A
3 - A55 off-slip	511	128	905	1335	0.383	510	0	0.4	0.6	4.361	A
4 - A5104 Northeastern	524	131	662	1019	0.514	522	753	0.7	1.0	7.221	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			779				667				
2 - A5104 Link	1104	276	7	1529	0.722	1099	772	1.4	2.5	8.286	A
3 - A55 off-slip	625	156	1106	1185	0.528	624	0	0.6	1.1	6.393	A
4 - A5104 Northeastern	641	160	809	926	0.692	637	921	1.0	2.2	12.254	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			783				670				
2 - A5104 Link	1104	276	7	1529	0.722	1104	776	2.5	2.6	8.447	A
3 - A55 off-slip	625	156	1110	1181	0.529	625	0	1.1	1.1	6.473	A
4 - A5104 Northeastern	641	160	812	924	0.694	641	924	2.2	2.2	12.684	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			644				550				
2 - A5104 Link	901	225	6	1530	0.589	906	639	2.6	1.5	5.804	A
3 - A55 off-slip	511	128	911	1330	0.384	513	0	1.1	0.6	4.415	A
4 - A5104 Northeastern	524	131	666	1017	0.515	528	758	2.2	1.1	7.440	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			537				459				
2 - A5104 Link	755	189	5	1531	0.493	757	533	1.5	1.0	4.664	A
3 - A55 off-slip	428	107	761	1442	0.297	428	0	0.6	0.4	3.554	A
4 - A5104 Northeastern	439	110	557	1086	0.404	440	633	1.1	0.7	5.591	A

2024 with Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A55 Junction Northern	Standard Roundabout		1, 2, 3, 4	21.33	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 with Development	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 on-slip					
2 - A5104 Link		ONE HOUR	✓	723	100.000
3 - A55 off-slip		ONE HOUR	✓	575	100.000
4 - A5104 Northeastern		ONE HOUR	✓	999	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	295	0	0	428
	3 - A55 off-slip	1	159	0	415
	4 - A5104 Northeastern	36	958	0	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	3	0	0	2
	3 - A55 off-slip	0	3	0	1
	4 - A5104 Northeastern	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 on-slip						
2 - A5104 Link	0.51	4.73	1.0	A	663	995
3 - A55 off-slip	0.44	4.44	0.8	A	527	791
4 - A5104 Northeastern	0.95	43.19	12.4	E	916	1375

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			838				249				
2 - A5104 Link	544	136	3	1557	0.349	542	835	0.0	0.5	3.538	A
3 - A55 off-slip	433	108	545	1634	0.265	431	0	0.0	0.4	2.989	A
4 - A5104 Northeastern	752	188	341	1266	0.594	746	635	0.0	1.4	6.855	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1003				298				
2 - A5104 Link	650	162	4	1557	0.417	649	999	0.5	0.7	3.961	A
3 - A55 off-slip	516	129	653	1553	0.332	516	0	0.4	0.5	3.468	A
4 - A5104 Northeastern	898	224	408	1222	0.735	893	761	1.4	2.7	10.778	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1204				364				
2 - A5104 Link	796	199	4	1557	0.511	795	1200	0.7	1.0	4.717	A
3 - A55 off-slip	633	158	799	1445	0.438	631	0	0.5	0.8	4.420	A
4 - A5104 Northeastern	1100	275	500	1163	0.946	1069	931	2.7	10.3	31.366	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1226				365				
2 - A5104 Link	796	199	5	1556	0.511	796	1222	1.0	1.0	4.732	A
3 - A55 off-slip	633	158	800	1444	0.438	633	0	0.8	0.8	4.438	A
4 - A5104 Northeastern	1100	275	500	1162	0.946	1091	932	10.3	12.4	43.194	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1045				300				
2 - A5104 Link	650	162	4	1557	0.417	651	1041	1.0	0.7	3.981	A
3 - A55 off-slip	516	129	655	1552	0.333	518	0	0.8	0.5	3.486	A
4 - A5104 Northeastern	898	224	409	1221	0.735	936	763	12.4	2.9	14.138	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			850				251				
2 - A5104 Link	544	136	3	1557	0.349	545	847	0.7	0.5	3.557	A
3 - A55 off-slip	433	108	548	1631	0.265	433	0	0.5	0.4	3.007	A
4 - A5104 Northeastern	752	188	343	1265	0.595	758	639	2.9	1.5	7.179	A

2024 with Development and internalisation, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A55 Junction Northern	Standard Roundabout		1, 2, 3, 4	8.92	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 with Development and internalisation	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 on-slip					
2 - A5104 Link		ONE HOUR	✓	994	100.000
3 - A55 off-slip		ONE HOUR	✓	567	100.000
4 - A5104 Northeastern		ONE HOUR	✓	582	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	512	0	0	482
	3 - A55 off-slip	1	219	0	348
	4 - A5104 Northeastern	90	485	0	6

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	3	0	0	4
	3 - A55 off-slip	0	4	0	2
	4 - A5104 Northeastern	1	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 on-slip						
2 - A5104 Link	0.72	8.27	2.5	A	912	1368
3 - A55 off-slip	0.53	6.39	1.1	A	521	781
4 - A5104 Northeastern	0.69	12.47	2.2	B	534	801

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			532				452				
2 - A5104 Link	748	187	5	1531	0.489	745	527	0.0	0.9	4.559	A
3 - A55 off-slip	427	107	749	1451	0.294	426	0	0.0	0.4	3.504	A
4 - A5104 Northeastern	438	110	548	1091	0.401	435	627	0.0	0.7	5.469	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			637				541				
2 - A5104 Link	894	223	6	1530	0.584	892	631	0.9	1.4	5.626	A
3 - A55 off-slip	510	128	898	1340	0.381	509	0	0.4	0.6	4.329	A
4 - A5104 Northeastern	523	131	657	1023	0.511	522	750	0.7	1.0	7.162	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			777				662				
2 - A5104 Link	1095	274	7	1529	0.716	1090	771	1.4	2.4	8.122	A
3 - A55 off-slip	625	156	1097	1191	0.524	623	0	0.6	1.1	6.310	A
4 - A5104 Northeastern	641	160	803	930	0.689	636	917	1.0	2.1	12.061	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			782				664				
2 - A5104 Link	1095	274	7	1529	0.716	1094	775	2.4	2.5	8.271	A
3 - A55 off-slip	625	156	1101	1188	0.526	625	0	1.1	1.1	6.387	A
4 - A5104 Northeastern	641	160	805	929	0.690	640	920	2.1	2.2	12.467	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			643				545				
2 - A5104 Link	894	223	6	1530	0.584	898	637	2.5	1.4	5.732	A
3 - A55 off-slip	510	128	904	1336	0.382	512	0	1.1	0.6	4.379	A
4 - A5104 Northeastern	523	131	661	1020	0.513	527	755	2.2	1.1	7.371	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			536				455				
2 - A5104 Link	748	187	5	1531	0.489	750	531	1.4	1.0	4.624	A
3 - A55 off-slip	427	107	755	1447	0.295	428	0	0.6	0.4	3.538	A
4 - A5104 Northeastern	438	110	552	1089	0.402	440	631	1.1	0.7	5.559	A

2024 with Development and internalisation, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A55 Junction Northern	Standard Roundabout		1, 2, 3, 4	20.58	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 with Development and internalisation	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A55 on-slip					
2 - A5104 Link		ONE HOUR	✓	720	100.000
3 - A55 off-slip		ONE HOUR	✓	573	100.000
4 - A5104 Northeastern		ONE HOUR	✓	997	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	293	0	0	427
	3 - A55 off-slip	1	157	0	415
	4 - A5104 Northeastern	36	956	0	4

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A55 on-slip	2 - A5104 Link	3 - A55 off-slip	4 - A5104 Northeastern
From	1 - A55 on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	2 - A5104 Link	3	0	0	2
	3 - A55 off-slip	0	3	0	1
	4 - A5104 Northeastern	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A55 on-slip						
2 - A5104 Link	0.51	4.71	1.0	A	661	991
3 - A55 off-slip	0.44	4.42	0.8	A	526	788
4 - A5104 Northeastern	0.94	41.46	11.8	E	914	1372

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			835				248				
2 - A5104 Link	542	136	3	1557	0.348	540	832	0.0	0.5	3.531	A
3 - A55 off-slip	431	108	543	1635	0.264	430	0	0.0	0.4	2.982	A
4 - A5104 Northeastern	750	188	338	1267	0.592	745	635	0.0	1.4	6.813	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1000				297				
2 - A5104 Link	647	162	4	1557	0.416	647	996	0.5	0.7	3.949	A
3 - A55 off-slip	515	129	650	1555	0.331	514	0	0.4	0.5	3.456	A
4 - A5104 Northeastern	896	224	405	1224	0.732	891	760	1.4	2.6	10.659	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1201				362				
2 - A5104 Link	793	198	4	1557	0.509	792	1197	0.7	1.0	4.698	A
3 - A55 off-slip	631	158	796	1447	0.436	630	0	0.5	0.8	4.399	A
4 - A5104 Northeastern	1097	274	496	1165	0.942	1068	930	2.6	10.0	30.525	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1223				363				
2 - A5104 Link	793	198	5	1556	0.509	793	1218	1.0	1.0	4.714	A
3 - A55 off-slip	631	158	797	1446	0.436	631	0	0.8	0.8	4.415	A
4 - A5104 Northeastern	1097	274	497	1164	0.942	1090	931	10.0	11.8	41.464	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			1039				299				
2 - A5104 Link	647	162	4	1557	0.416	649	1035	1.0	0.7	3.970	A
3 - A55 off-slip	515	129	653	1554	0.331	516	0	0.8	0.5	3.474	A
4 - A5104 Northeastern	896	224	406	1223	0.732	932	762	11.8	2.9	13.745	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A55 on-slip			847				249				
2 - A5104 Link	542	136	3	1557	0.348	543	843	0.7	0.5	3.550	A
3 - A55 off-slip	431	108	546	1633	0.264	432	0	0.5	0.4	2.999	A
4 - A5104 Northeastern	750	188	340	1266	0.592	756	638	2.9	1.5	7.128	A



Appendix H

A5104 MAIN ROAD/B5125 CHESTER ROAD ROUNDABOUT MODELLING OUTPUTS

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: A110787 190507 A5104 B5125 Junction.j9

Path: \\CARDIFF31\Data\data\A110000-A110999\A110787 - Warren Hall, Broughton\30 Technical\31 Modelling

Report generation date: 07/05/2019 16:09:40

- »2019 Observed, AM
- »2019 Observed, PM
- »2024 Forecast, AM
- »2024 Forecast, PM
- »2024 + Dev, AM
- »2024 + Dev, PM
- »2024 + Dev and internalisation, AM
- »2024 + Dev and internalisation, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Observed						
1 - B5125 E	0.2	2.26	0.20	0.9	4.37	0.48
2 - A5104 SW	0.5	2.19	0.35	0.4	2.00	0.27
3 - B5125 W	0.6	3.65	0.36	0.8	3.87	0.45
4 - St Mary's Way	0.0	5.25	0.01	0.0	5.45	0.01
5 - A5104 NE	0.3	2.25	0.24	0.9	3.27	0.46
2024 Forecast						
1 - B5125 E	0.3	2.30	0.21	1.0	4.72	0.51
2 - A5104 SW	0.6	2.25	0.36	0.4	2.05	0.29
3 - B5125 W	0.6	3.78	0.37	0.9	4.05	0.47
4 - St Mary's Way	0.0	5.39	0.01	0.0	5.59	0.01
5 - A5104 NE	0.3	2.30	0.25	0.9	3.43	0.48
2024 + Dev						
1 - B5125 E	0.3	2.40	0.22	1.1	4.99	0.53
2 - A5104 SW	0.6	2.34	0.39	0.5	2.13	0.31
3 - B5125 W	0.6	3.93	0.39	0.9	4.23	0.48
4 - St Mary's Way	0.0	5.56	0.01	0.0	5.79	0.01
5 - A5104 NE	0.4	2.36	0.27	1.0	3.57	0.50
2024 + Dev and internalisation						
1 - B5125 E	0.3	2.40	0.22	1.1	4.97	0.53
2 - A5104 SW	0.6	2.34	0.39	0.5	2.13	0.31
3 - B5125 W	0.6	3.92	0.39	0.9	4.23	0.48
4 - St Mary's Way	0.0	5.55	0.01	0.0	5.79	0.01
5 - A5104 NE	0.4	2.36	0.27	1.0	3.56	0.50

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

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

File summary

File Description

Title	A5104 B5125 Junction
Location	Broughton
Site number	
Date	03/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	A110787
Enumerator	WYG/ben.maliphant
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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Observed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Observed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2024 Forecast	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Forecast	PM	ONE HOUR	16:45	18:15	15	✓
D5	2024 + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓
D7	2024 + Dev and internalisation	AM	ONE HOUR	07:45	09:15	15	✓
D8	2024 + Dev and internalisation	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2019 Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B5125 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B5125 W - 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	A5104 B5125 Junction	Standard Roundabout		1, 2, 3, 4, 5	2.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	B5125 E	
2	A5104 SW	
3	B5125 W	
4	St Mary's Way	
5	A5104 NE	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - B5125 E	3.62	9.39	34.5	97.4	13.0	9.4	
2 - A5104 SW	8.07	9.07	21.0	20.7	95.0	8.7	
3 - B5125 W	3.16	7.89	42.8	30.7	95.0	27.4	
4 - St Mary's Way	4.02	7.79	3.0	5.5	95.0	54.7	
5 - A5104 NE	6.91	8.09	26.5	23.8	95.0	11.4	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B5125 E	0.863	2482
2 - A5104 SW	0.639	2912
3 - B5125 W	0.510	2069
4 - St Mary's Way	0.327	1135
5 - A5104 NE	0.591	2581

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Observed	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B5125 E		ONE HOUR	✓	356	100.000
2 - A5104 SW		ONE HOUR	✓	799	100.000
3 - B5125 W		ONE HOUR	✓	499	100.000
4 - St Mary's Way		ONE HOUR	✓	5	100.000
5 - A5104 NE		ONE HOUR	✓	466	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
From	1 - B5125 E	2	128	194	0	32
	2 - A5104 SW	171	0	171	0	457
	3 - B5125 W	190	63	0	1	245
	4 - St Mary's Way	3	1	1	0	0
	5 - A5104 NE	108	191	158	2	7

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
From	1 - B5125 E	50	2	3	0	3
	2 - A5104 SW	0	0	7	0	4
	3 - B5125 W	11	10	0	0	8
	4 - St Mary's Way	0	0	0	0	0
	5 - A5104 NE	2	12	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B5125 E	0.20	2.26	0.2	A	327	490
2 - A5104 SW	0.35	2.19	0.5	A	733	1100
3 - B5125 W	0.36	3.65	0.6	A	458	687
4 - St Mary's Way	0.01	5.25	0.0	A	5	7
5 - A5104 NE	0.24	2.25	0.3	A	428	641

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	268	67	318	2121	0.126	267	356	0.0	0.1	1.942	A
2 - A5104 SW	602	150	297	2614	0.230	600	288	0.0	0.3	1.788	A
3 - B5125 W	376	94	504	1649	0.228	374	394	0.0	0.3	2.822	A
4 - St Mary's Way	4	0.94	876	832	0.005	4	2	0.0	0.0	4.344	A
5 - A5104 NE	351	88	324	2198	0.160	350	557	0.0	0.2	1.947	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	320	80	380	2064	0.155	320	426	0.1	0.2	2.064	A
2 - A5104 SW	718	180	356	2576	0.279	718	344	0.3	0.4	1.937	A
3 - B5125 W	449	112	603	1601	0.280	448	471	0.3	0.4	3.121	A
4 - St Mary's Way	4	1	1048	773	0.006	4	3	0.0	0.0	4.685	A
5 - A5104 NE	419	105	387	2161	0.194	419	666	0.2	0.2	2.066	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	392	98	465	1985	0.197	392	521	0.2	0.2	2.259	A
2 - A5104 SW	880	220	436	2524	0.349	879	421	0.4	0.5	2.189	A
3 - B5125 W	549	137	738	1537	0.358	549	577	0.4	0.6	3.643	A
4 - St Mary's Way	6	1	1284	691	0.008	5	3	0.0	0.0	5.248	A
5 - A5104 NE	513	128	474	2110	0.243	513	815	0.2	0.3	2.253	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	392	98	466	1985	0.198	392	522	0.2	0.2	2.259	A
2 - A5104 SW	880	220	436	2524	0.349	880	422	0.5	0.5	2.189	A
3 - B5125 W	549	137	739	1536	0.358	549	577	0.6	0.6	3.646	A
4 - St Mary's Way	6	1	1285	691	0.008	6	3	0.0	0.0	5.251	A
5 - A5104 NE	513	128	475	2110	0.243	513	816	0.3	0.3	2.254	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	320	80	381	2063	0.155	320	427	0.2	0.2	2.065	A
2 - A5104 SW	718	180	356	2576	0.279	719	345	0.5	0.4	1.939	A
3 - B5125 W	449	112	604	1601	0.280	449	471	0.6	0.4	3.126	A
4 - St Mary's Way	4	1	1050	772	0.006	5	3	0.0	0.0	4.689	A
5 - A5104 NE	419	105	388	2160	0.194	419	667	0.3	0.2	2.069	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	268	67	319	2120	0.126	268	357	0.2	0.1	1.945	A
2 - A5104 SW	602	150	298	2613	0.230	602	289	0.4	0.3	1.792	A
3 - B5125 W	376	94	505	1648	0.228	376	395	0.4	0.3	2.832	A
4 - St Mary's Way	4	0.94	879	831	0.005	4	2	0.0	0.0	4.350	A
5 - A5104 NE	351	88	325	2197	0.160	351	558	0.2	0.2	1.950	A

2019 Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B5125 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B5125 W - 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	A5104 B5125 Junction	Standard Roundabout		1, 2, 3, 4, 5	3.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Observed	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B5125 E		ONE HOUR	✓	692	100.000
2 - A5104 SW		ONE HOUR	✓	614	100.000
3 - B5125 W		ONE HOUR	✓	686	100.000
4 - St Mary's Way		ONE HOUR	✓	5	100.000
5 - A5104 NE		ONE HOUR	✓	857	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
From	1 - B5125 E	1	465	207	2	17
	2 - A5104 SW	296	2	44	2	270
	3 - B5125 W	335	132	0	1	218
	4 - St Mary's Way	0	1	1	0	3
	5 - A5104 NE	91	444	315	2	5

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
	1 - B5125 E	0	0	4	0	6
	2 - A5104 SW	0	0	7	0	3
	3 - B5125 W	2	3	0	0	3
	4 - St Mary's Way	0	0	0	0	0
	5 - A5104 NE	0	1	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B5125 E	0.48	4.37	0.9	A	635	952
2 - A5104 SW	0.27	2.00	0.4	A	563	845
3 - B5125 W	0.45	3.87	0.8	A	629	944
4 - St Mary's Way	0.01	5.45	0.0	A	5	7
5 - A5104 NE	0.46	3.27	0.9	A	786	1180

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	521	130	677	1858	0.280	519	543	0.0	0.4	2.688	A
2 - A5104 SW	462	116	413	2598	0.178	461	784	0.0	0.2	1.684	A
3 - B5125 W	516	129	449	1790	0.289	515	426	0.0	0.4	2.819	A
4 - St Mary's Way	4	0.94	958	816	0.005	4	5	0.0	0.0	4.434	A
5 - A5104 NE	645	161	577	2204	0.293	644	385	0.0	0.4	2.305	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	622	156	810	1743	0.357	621	650	0.4	0.6	3.209	A
2 - A5104 SW	552	138	494	2546	0.217	552	938	0.2	0.3	1.804	A
3 - B5125 W	617	154	536	1746	0.353	616	509	0.4	0.5	3.184	A
4 - St Mary's Way	4	1	1146	753	0.006	4	6	0.0	0.0	4.810	A
5 - A5104 NE	770	193	690	2137	0.361	770	461	0.4	0.6	2.631	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	762	190	992	1586	0.480	760	795	0.6	0.9	4.354	A
2 - A5104 SW	676	169	605	2474	0.273	676	1148	0.3	0.4	2.001	A
3 - B5125 W	755	189	657	1685	0.448	754	623	0.5	0.8	3.863	A
4 - St Mary's Way	6	1	1403	667	0.008	5	8	0.0	0.0	5.441	A
5 - A5104 NE	944	236	845	2045	0.461	942	564	0.6	0.9	3.261	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	762	190	993	1585	0.481	762	796	0.9	0.9	4.375	A
2 - A5104 SW	676	169	606	2473	0.273	676	1149	0.4	0.4	2.002	A
3 - B5125 W	755	189	657	1685	0.448	755	624	0.8	0.8	3.871	A
4 - St Mary's Way	6	1	1405	667	0.008	6	8	0.0	0.0	5.445	A
5 - A5104 NE	944	236	846	2045	0.461	944	565	0.9	0.9	3.268	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	622	156	812	1741	0.357	624	651	0.9	0.6	3.224	A
2 - A5104 SW	552	138	495	2545	0.217	552	940	0.4	0.3	1.809	A
3 - B5125 W	617	154	537	1746	0.353	618	511	0.8	0.5	3.194	A
4 - St Mary's Way	4	1	1149	752	0.006	5	6	0.0	0.0	4.817	A
5 - A5104 NE	770	193	691	2136	0.361	772	462	0.9	0.6	2.639	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	521	130	680	1856	0.281	522	545	0.6	0.4	2.699	A
2 - A5104 SW	462	116	415	2597	0.178	462	787	0.3	0.2	1.688	A
3 - B5125 W	516	129	450	1790	0.289	517	427	0.5	0.4	2.831	A
4 - St Mary's Way	4	0.94	961	814	0.005	4	5	0.0	0.0	4.440	A
5 - A5104 NE	645	161	579	2203	0.293	646	387	0.6	0.4	2.314	A

2024 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B5125 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B5125 W - 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	A5104 B5125 Junction	Standard Roundabout		1, 2, 3, 4, 5	2.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Forecast	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B5125 E		ONE HOUR	✓	370	100.000
2 - A5104 SW		ONE HOUR	✓	830	100.000
3 - B5125 W		ONE HOUR	✓	518	100.000
4 - St Mary's Way		ONE HOUR	✓	5	100.000
5 - A5104 NE		ONE HOUR	✓	484	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
From	1 - B5125 E	2	133	201	0	33
	2 - A5104 SW	178	0	178	0	474
	3 - B5125 W	197	65	0	1	254
	4 - St Mary's Way	3	1	1	0	0
	5 - A5104 NE	112	198	164	2	7

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
	1 - B5125 E	50	2	3	0	3
	2 - A5104 SW	0	0	7	0	4
	3 - B5125 W	11	10	0	0	8
	4 - St Mary's Way	0	0	0	0	0
	5 - A5104 NE	2	12	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B5125 E	0.21	2.30	0.3	A	339	509
2 - A5104 SW	0.36	2.25	0.6	A	761	1142
3 - B5125 W	0.37	3.78	0.6	A	475	713
4 - St Mary's Way	0.01	5.39	0.0	A	5	7
5 - A5104 NE	0.25	2.30	0.3	A	444	666

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	278	70	330	2110	0.132	278	370	0.0	0.2	1.965	A
2 - A5104 SW	625	156	309	2606	0.240	623	299	0.0	0.3	1.815	A
3 - B5125 W	390	98	523	1640	0.238	389	409	0.0	0.3	2.875	A
4 - St Mary's Way	4	0.98	910	821	0.005	4	2	0.0	0.0	4.407	A
5 - A5104 NE	364	91	336	2191	0.166	363	578	0.0	0.2	1.969	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	332	83	395	2050	0.162	332	442	0.2	0.2	2.095	A
2 - A5104 SW	746	186	369	2567	0.291	745	357	0.3	0.4	1.976	A
3 - B5125 W	466	116	626	1590	0.293	465	489	0.3	0.4	3.200	A
4 - St Mary's Way	5	1	1089	759	0.006	5	3	0.0	0.0	4.772	A
5 - A5104 NE	435	109	402	2152	0.202	435	691	0.2	0.3	2.096	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	407	102	483	1969	0.207	407	541	0.2	0.3	2.304	A
2 - A5104 SW	913	228	452	2513	0.363	913	437	0.4	0.6	2.248	A
3 - B5125 W	570	143	767	1523	0.375	570	599	0.4	0.6	3.775	A
4 - St Mary's Way	6	1	1333	674	0.008	6	3	0.0	0.0	5.382	A
5 - A5104 NE	533	133	492	2100	0.254	532	846	0.3	0.3	2.297	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	407	102	484	1968	0.207	407	542	0.3	0.3	2.305	A
2 - A5104 SW	913	228	453	2513	0.363	913	438	0.6	0.6	2.250	A
3 - B5125 W	570	143	767	1523	0.375	570	599	0.6	0.6	3.779	A
4 - St Mary's Way	6	1	1334	674	0.008	6	3	0.0	0.0	5.386	A
5 - A5104 NE	533	133	493	2099	0.254	533	847	0.3	0.3	2.297	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	332	83	395	2050	0.162	333	443	0.3	0.2	2.098	A
2 - A5104 SW	746	186	370	2567	0.291	746	358	0.6	0.4	1.979	A
3 - B5125 W	466	116	627	1590	0.293	466	489	0.6	0.4	3.205	A
4 - St Mary's Way	5	1	1091	758	0.006	5	3	0.0	0.0	4.779	A
5 - A5104 NE	435	109	403	2152	0.202	435	692	0.3	0.3	2.099	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	278	70	331	2109	0.132	278	371	0.2	0.2	1.967	A
2 - A5104 SW	625	156	310	2606	0.240	625	300	0.4	0.3	1.819	A
3 - B5125 W	390	98	525	1639	0.238	390	410	0.4	0.3	2.886	A
4 - St Mary's Way	4	0.98	913	820	0.005	4	2	0.0	0.0	4.414	A
5 - A5104 NE	364	91	337	2190	0.166	364	580	0.3	0.2	1.972	A

2024 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B5125 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B5125 W - 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	A5104 B5125 Junction	Standard Roundabout		1, 2, 3, 4, 5	3.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Forecast	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B5125 E		ONE HOUR	✓	718	100.000
2 - A5104 SW		ONE HOUR	✓	637	100.000
3 - B5125 W		ONE HOUR	✓	711	100.000
4 - St Mary's Way		ONE HOUR	✓	5	100.000
5 - A5104 NE		ONE HOUR	✓	889	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
From	1 - B5125 E	1	482	215	2	18
	2 - A5104 SW	307	2	46	2	280
	3 - B5125 W	347	137	0	1	226
	4 - St Mary's Way	0	1	1	0	3
	5 - A5104 NE	94	460	327	2	5

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
1 - B5125 E	0	0	4	0	6
2 - A5104 SW	0	0	7	0	3
3 - B5125 W	2	3	0	0	3
4 - St Mary's Way	0	0	0	0	0
5 - A5104 NE	0	1	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B5125 E	0.51	4.72	1.0	A	658	988
2 - A5104 SW	0.29	2.05	0.4	A	584	876
3 - B5125 W	0.47	4.05	0.9	A	653	979
4 - St Mary's Way	0.01	5.59	0.0	A	5	7
5 - A5104 NE	0.48	3.43	0.9	A	815	1223

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	540	135	702	1836	0.294	539	563	0.0	0.4	2.770	A
2 - A5104 SW	479	120	428	2588	0.185	478	813	0.0	0.2	1.706	A
3 - B5125 W	536	134	465	1782	0.301	534	441	0.0	0.4	2.881	A
4 - St Mary's Way	4	0.98	994	804	0.005	4	5	0.0	0.0	4.500	A
5 - A5104 NE	669	167	598	2191	0.305	667	399	0.0	0.4	2.360	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	645	161	840	1717	0.376	644	673	0.4	0.6	3.355	A
2 - A5104 SW	572	143	512	2534	0.226	572	972	0.2	0.3	1.834	A
3 - B5125 W	639	160	556	1736	0.368	639	528	0.4	0.6	3.280	A
4 - St Mary's Way	5	1	1189	739	0.006	5	7	0.0	0.0	4.904	A
5 - A5104 NE	799	200	715	2122	0.377	798	478	0.4	0.6	2.718	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	790	198	1028	1554	0.508	788	825	0.6	1.0	4.691	A
2 - A5104 SW	701	175	627	2460	0.285	701	1190	0.3	0.4	2.046	A
3 - B5125 W	783	196	681	1673	0.468	782	646	0.6	0.9	4.035	A
4 - St Mary's Way	6	1	1455	650	0.009	6	8	0.0	0.0	5.589	A
5 - A5104 NE	978	245	876	2027	0.483	977	585	0.6	0.9	3.424	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	790	198	1030	1553	0.509	790	825	1.0	1.0	4.718	A
2 - A5104 SW	701	175	628	2459	0.285	701	1192	0.4	0.4	2.047	A
3 - B5125 W	783	196	682	1673	0.468	783	647	0.9	0.9	4.046	A
4 - St Mary's Way	6	1	1457	649	0.009	6	8	0.0	0.0	5.594	A
5 - A5104 NE	978	245	877	2026	0.483	978	586	0.9	0.9	3.434	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	645	161	842	1715	0.376	647	675	1.0	0.6	3.376	A
2 - A5104 SW	572	143	514	2533	0.226	573	975	0.4	0.3	1.838	A
3 - B5125 W	639	160	557	1736	0.368	641	530	0.9	0.6	3.290	A
4 - St Mary's Way	5	1	1191	738	0.006	5	7	0.0	0.0	4.911	A
5 - A5104 NE	799	200	717	2121	0.377	800	479	0.9	0.6	2.727	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	540	135	705	1834	0.295	541	565	0.6	0.4	2.787	A
2 - A5104 SW	479	120	430	2587	0.185	480	816	0.3	0.2	1.707	A
3 - B5125 W	536	134	466	1781	0.301	536	443	0.6	0.4	2.892	A
4 - St Mary's Way	4	0.98	997	803	0.005	4	5	0.0	0.0	4.508	A
5 - A5104 NE	669	167	600	2190	0.305	670	401	0.6	0.4	2.368	A

2024 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B5125 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B5125 W - 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	A5104 B5125 Junction	Standard Roundabout		1, 2, 3, 4, 5	2.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B5125 E		ONE HOUR	✓	389	100.000
2 - A5104 SW		ONE HOUR	✓	887	100.000
3 - B5125 W		ONE HOUR	✓	533	100.000
4 - St Mary's Way		ONE HOUR	✓	5	100.000
5 - A5104 NE		ONE HOUR	✓	508	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To				
	1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
1 - B5125 E	2	153	201	0	33
2 - A5104 SW	196	0	195	0	496
3 - B5125 W	197	81	0	1	254
4 - St Mary's Way	3	1	1	0	0
5 - A5104 NE	112	223	164	2	7

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
1 - B5125 E	50	2	3	0	3
2 - A5104 SW	0	0	7	0	4
3 - B5125 W	11	8	0	0	8
4 - St Mary's Way	0	0	0	0	0
5 - A5104 NE	2	11	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B5125 E	0.22	2.40	0.3	A	357	536
2 - A5104 SW	0.39	2.34	0.6	A	814	1221
3 - B5125 W	0.39	3.93	0.6	A	489	734
4 - St Mary's Way	0.01	5.56	0.0	A	5	7
5 - A5104 NE	0.27	2.36	0.4	A	466	699

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	293	73	360	2083	0.141	293	383	0.0	0.2	2.010	A
2 - A5104 SW	668	167	309	2606	0.256	666	343	0.0	0.3	1.856	A
3 - B5125 W	402	100	553	1628	0.247	400	422	0.0	0.3	2.931	A
4 - St Mary's Way	4	0.98	951	807	0.005	4	2	0.0	0.0	4.484	A
5 - A5104 NE	383	96	361	2181	0.175	382	594	0.0	0.2	2.000	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	350	88	430	2018	0.173	350	458	0.2	0.2	2.157	A
2 - A5104 SW	797	199	369	2567	0.311	797	411	0.3	0.4	2.034	A
3 - B5125 W	479	120	662	1575	0.304	479	504	0.3	0.4	3.281	A
4 - St Mary's Way	5	1	1138	742	0.006	5	3	0.0	0.0	4.881	A
5 - A5104 NE	457	114	432	2139	0.214	457	711	0.2	0.3	2.139	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	429	107	527	1930	0.222	428	561	0.2	0.3	2.398	A
2 - A5104 SW	977	244	452	2513	0.389	976	503	0.4	0.6	2.340	A
3 - B5125 W	587	147	810	1504	0.390	586	618	0.4	0.6	3.920	A
4 - St Mary's Way	6	1	1393	654	0.009	6	3	0.0	0.0	5.554	A
5 - A5104 NE	559	140	529	2083	0.269	559	870	0.3	0.4	2.362	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	429	107	527	1929	0.222	429	562	0.3	0.3	2.398	A
2 - A5104 SW	977	244	453	2513	0.389	977	503	0.6	0.6	2.343	A
3 - B5125 W	587	147	811	1504	0.391	587	618	0.6	0.6	3.927	A
4 - St Mary's Way	6	1	1395	653	0.009	6	3	0.0	0.0	5.558	A
5 - A5104 NE	559	140	529	2082	0.269	559	871	0.4	0.4	2.363	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	350	88	431	2018	0.173	350	459	0.3	0.2	2.159	A
2 - A5104 SW	797	199	370	2566	0.311	798	411	0.6	0.5	2.037	A
3 - B5125 W	479	120	663	1575	0.304	480	505	0.6	0.4	3.292	A
4 - St Mary's Way	5	1	1140	741	0.006	5	3	0.0	0.0	4.888	A
5 - A5104 NE	457	114	433	2139	0.214	457	712	0.4	0.3	2.142	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	293	73	361	2082	0.141	293	384	0.2	0.2	2.012	A
2 - A5104 SW	668	167	310	2606	0.256	668	344	0.5	0.3	1.857	A
3 - B5125 W	402	100	555	1627	0.247	402	423	0.4	0.3	2.939	A
4 - St Mary's Way	4	0.98	955	805	0.005	4	2	0.0	0.0	4.492	A
5 - A5104 NE	383	96	362	2180	0.175	383	596	0.3	0.2	2.003	A

2024 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B5125 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B5125 W - 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	A5104 B5125 Junction	Standard Roundabout		1, 2, 3, 4, 5	3.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B5125 E		ONE HOUR	✓	730	100.000
2 - A5104 SW		ONE HOUR	✓	701	100.000
3 - B5125 W		ONE HOUR	✓	724	100.000
4 - St Mary's Way		ONE HOUR	✓	5	100.000
5 - A5104 NE		ONE HOUR	✓	904	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
From	1 - B5125 E	1	495	215	2	18
	2 - A5104 SW	328	2	62	2	306
	3 - B5125 W	347	149	0	1	226
	4 - St Mary's Way	0	1	1	0	3
	5 - A5104 NE	94	476	327	2	5

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
	1 - B5125 E	0	0	4	0	6
	2 - A5104 SW	0	0	5	0	2
	3 - B5125 W	2	3	0	0	3
	4 - St Mary's Way	0	0	0	0	0
	5 - A5104 NE	0	1	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B5125 E	0.53	4.99	1.1	A	670	1005
2 - A5104 SW	0.31	2.13	0.5	A	643	965
3 - B5125 W	0.48	4.23	0.9	A	664	996
4 - St Mary's Way	0.01	5.79	0.0	A	5	7
5 - A5104 NE	0.50	3.57	1.0	A	830	1244

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	550	137	723	1818	0.302	548	579	0.0	0.4	2.832	A
2 - A5104 SW	528	132	428	2589	0.204	527	843	0.0	0.3	1.745	A
3 - B5125 W	545	136	501	1764	0.309	543	454	0.0	0.4	2.945	A
4 - St Mary's Way	4	0.98	1038	789	0.005	4	5	0.0	0.0	4.585	A
5 - A5104 NE	681	170	623	2176	0.313	679	419	0.0	0.5	2.401	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	657	164	865	1695	0.387	656	693	0.4	0.6	3.463	A
2 - A5104 SW	630	157	512	2535	0.249	630	1009	0.3	0.3	1.889	A
3 - B5125 W	651	163	599	1715	0.379	650	543	0.4	0.6	3.379	A
4 - St Mary's Way	5	1	1242	721	0.006	5	7	0.0	0.0	5.026	A
5 - A5104 NE	813	203	746	2104	0.386	812	501	0.5	0.6	2.786	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	804	201	1059	1527	0.526	802	848	0.6	1.1	4.952	A
2 - A5104 SW	772	193	627	2460	0.314	771	1234	0.3	0.5	2.131	A
3 - B5125 W	797	199	733	1647	0.484	796	665	0.6	0.9	4.222	A
4 - St Mary's Way	6	1	1521	628	0.009	6	8	0.0	0.0	5.785	A
5 - A5104 NE	995	249	913	2005	0.497	994	614	0.6	1.0	3.557	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	804	201	1060	1526	0.527	804	849	1.1	1.1	4.986	A
2 - A5104 SW	772	193	628	2460	0.314	772	1237	0.5	0.5	2.132	A
3 - B5125 W	797	199	734	1647	0.484	797	666	0.9	0.9	4.235	A
4 - St Mary's Way	6	1	1523	627	0.009	6	8	0.0	0.0	5.790	A
5 - A5104 NE	995	249	914	2004	0.497	995	614	1.0	1.0	3.568	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	657	164	867	1693	0.388	658	694	1.1	0.6	3.487	A
2 - A5104 SW	630	157	514	2533	0.249	630	1012	0.5	0.3	1.891	A
3 - B5125 W	651	163	600	1714	0.380	652	545	0.9	0.6	3.391	A
4 - St Mary's Way	5	1	1245	720	0.006	5	7	0.0	0.0	5.034	A
5 - A5104 NE	813	203	747	2103	0.387	814	502	1.0	0.6	2.796	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	550	137	726	1815	0.303	551	581	0.6	0.4	2.849	A
2 - A5104 SW	528	132	430	2588	0.204	528	847	0.3	0.3	1.749	A
3 - B5125 W	545	136	502	1763	0.309	545	456	0.6	0.4	2.956	A
4 - St Mary's Way	4	0.98	1042	788	0.005	4	5	0.0	0.0	4.594	A
5 - A5104 NE	681	170	625	2175	0.313	681	421	0.6	0.5	2.413	A

2024 + Dev and internalisation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B5125 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B5125 W - 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	A5104 B5125 Junction	Standard Roundabout		1, 2, 3, 4, 5	2.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + Dev and internalisation	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B5125 E		ONE HOUR	✓	389	100.000
2 - A5104 SW		ONE HOUR	✓	884	100.000
3 - B5125 W		ONE HOUR	✓	533	100.000
4 - St Mary's Way		ONE HOUR	✓	5	100.000
5 - A5104 NE		ONE HOUR	✓	508	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To					
	1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE	
1 - B5125 E	2	152	201	0	33	
2 - A5104 SW	195	0	194	0	495	
3 - B5125 W	197	80	0	1	254	
4 - St Mary's Way	3	1	1	0	0	
5 - A5104 NE	112	222	164	2	7	

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
	1 - B5125 E	50	2	3	0	3
	2 - A5104 SW	0	0	7	0	4
	3 - B5125 W	11	8	0	0	8
	4 - St Mary's Way	0	0	0	0	0
	5 - A5104 NE	2	11	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B5125 E	0.22	2.40	0.3	A	357	536
2 - A5104 SW	0.39	2.34	0.6	A	811	1217
3 - B5125 W	0.39	3.92	0.6	A	489	734
4 - St Mary's Way	0.01	5.55	0.0	A	5	7
5 - A5104 NE	0.27	2.36	0.4	A	466	699

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	293	73	359	2084	0.141	292	382	0.0	0.2	2.010	A
2 - A5104 SW	665	166	309	2606	0.255	664	343	0.0	0.3	1.853	A
3 - B5125 W	401	100	552	1628	0.246	400	421	0.0	0.3	2.928	A
4 - St Mary's Way	4	0.98	950	807	0.005	4	2	0.0	0.0	4.481	A
5 - A5104 NE	382	96	360	2181	0.175	381	593	0.0	0.2	1.999	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	350	87	430	2019	0.173	350	458	0.2	0.2	2.156	A
2 - A5104 SW	795	199	369	2567	0.310	794	410	0.3	0.4	2.031	A
3 - B5125 W	479	120	660	1576	0.304	479	504	0.3	0.4	3.278	A
4 - St Mary's Way	5	1	1136	743	0.006	5	3	0.0	0.0	4.877	A
5 - A5104 NE	457	114	431	2140	0.213	456	710	0.2	0.3	2.138	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	428	107	526	1930	0.222	428	560	0.2	0.3	2.396	A
2 - A5104 SW	973	243	452	2513	0.387	972	502	0.4	0.6	2.335	A
3 - B5125 W	587	147	808	1505	0.390	586	617	0.4	0.6	3.914	A
4 - St Mary's Way	6	1	1391	655	0.009	6	3	0.0	0.0	5.547	A
5 - A5104 NE	559	140	527	2084	0.268	559	869	0.3	0.4	2.361	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	428	107	526	1930	0.222	428	561	0.3	0.3	2.397	A
2 - A5104 SW	973	243	453	2513	0.387	973	502	0.6	0.6	2.337	A
3 - B5125 W	587	147	809	1505	0.390	587	617	0.6	0.6	3.921	A
4 - St Mary's Way	6	1	1392	654	0.009	6	3	0.0	0.0	5.551	A
5 - A5104 NE	559	140	528	2083	0.268	559	870	0.4	0.4	2.361	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	350	87	430	2018	0.173	350	458	0.3	0.2	2.158	A
2 - A5104 SW	795	199	370	2566	0.310	795	410	0.6	0.4	2.034	A
3 - B5125 W	479	120	661	1576	0.304	480	504	0.6	0.4	3.289	A
4 - St Mary's Way	5	1	1138	742	0.006	5	3	0.0	0.0	4.882	A
5 - A5104 NE	457	114	432	2139	0.213	457	711	0.4	0.3	2.139	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	293	73	360	2083	0.141	293	384	0.2	0.2	2.011	A
2 - A5104 SW	665	166	310	2606	0.255	666	344	0.4	0.3	1.855	A
3 - B5125 W	401	100	553	1628	0.247	402	422	0.4	0.3	2.939	A
4 - St Mary's Way	4	0.98	953	806	0.005	4	2	0.0	0.0	4.489	A
5 - A5104 NE	382	96	361	2180	0.175	383	595	0.3	0.2	2.002	A

2024 + Dev and internalisation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B5125 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B5125 W - 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	A5104 B5125 Junction	Standard Roundabout		1, 2, 3, 4, 5	3.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + Dev and internalisation	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B5125 E		ONE HOUR	✓	730	100.000
2 - A5104 SW		ONE HOUR	✓	700	100.000
3 - B5125 W		ONE HOUR	✓	723	100.000
4 - St Mary's Way		ONE HOUR	✓	5	100.000
5 - A5104 NE		ONE HOUR	✓	903	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
From	1 - B5125 E	1	494	215	2	18
	2 - A5104 SW	328	2	62	2	306
	3 - B5125 W	347	148	0	1	226
	4 - St Mary's Way	0	1	1	0	3
	5 - A5104 NE	94	475	327	2	5

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1 - B5125 E	2 - A5104 SW	3 - B5125 W	4 - St Mary's Way	5 - A5104 NE
1 - B5125 E	0	0	4	0	6
2 - A5104 SW	0	0	5	0	2
3 - B5125 W	2	3	0	0	3
4 - St Mary's Way	0	0	0	0	0
5 - A5104 NE	0	1	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B5125 E	0.53	4.97	1.1	A	670	1004
2 - A5104 SW	0.31	2.13	0.5	A	642	963
3 - B5125 W	0.48	4.23	0.9	A	663	995
4 - St Mary's Way	0.01	5.79	0.0	A	5	7
5 - A5104 NE	0.50	3.56	1.0	A	829	1243

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	549	137	722	1819	0.302	548	579	0.0	0.4	2.828	A
2 - A5104 SW	527	132	428	2589	0.203	526	841	0.0	0.3	1.744	A
3 - B5125 W	544	136	500	1764	0.308	542	454	0.0	0.4	2.943	A
4 - St Mary's Way	4	0.98	1037	789	0.005	4	5	0.0	0.0	4.583	A
5 - A5104 NE	680	170	622	2176	0.312	678	419	0.0	0.5	2.399	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	656	164	864	1696	0.387	655	692	0.4	0.6	3.457	A
2 - A5104 SW	629	157	512	2535	0.248	629	1007	0.3	0.3	1.888	A
3 - B5125 W	650	162	598	1715	0.379	649	543	0.4	0.6	3.376	A
4 - St Mary's Way	5	1	1241	721	0.006	5	7	0.0	0.0	5.023	A
5 - A5104 NE	812	203	745	2104	0.386	811	501	0.5	0.6	2.783	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	803	201	1057	1529	0.526	802	848	0.6	1.1	4.937	A
2 - A5104 SW	770	193	627	2460	0.313	770	1232	0.3	0.5	2.130	A
3 - B5125 W	796	199	733	1647	0.483	795	664	0.6	0.9	4.216	A
4 - St Mary's Way	6	1	1519	628	0.009	6	8	0.0	0.0	5.780	A
5 - A5104 NE	995	249	912	2005	0.496	993	613	0.6	1.0	3.552	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	803	201	1059	1527	0.526	803	849	1.1	1.1	4.971	A
2 - A5104 SW	770	193	628	2460	0.313	770	1234	0.5	0.5	2.130	A
3 - B5125 W	796	199	733	1647	0.483	796	665	0.9	0.9	4.229	A
4 - St Mary's Way	6	1	1521	628	0.009	6	8	0.0	0.0	5.785	A
5 - A5104 NE	995	249	913	2005	0.496	995	614	1.0	1.0	3.563	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	656	164	866	1694	0.387	658	694	1.1	0.6	3.479	A
2 - A5104 SW	629	157	514	2534	0.248	630	1010	0.5	0.3	1.890	A
3 - B5125 W	650	162	599	1715	0.379	651	544	0.9	0.6	3.391	A
4 - St Mary's Way	5	1	1244	720	0.006	5	7	0.0	0.0	5.031	A
5 - A5104 NE	812	203	746	2103	0.386	814	502	1.0	0.6	2.793	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B5125 E	549	137	725	1816	0.302	550	581	0.6	0.4	2.844	A
2 - A5104 SW	527	132	430	2588	0.204	527	845	0.3	0.3	1.746	A
3 - B5125 W	544	136	502	1764	0.309	545	455	0.6	0.4	2.957	A
4 - St Mary's Way	4	0.98	1041	788	0.005	4	5	0.0	0.0	4.592	A
5 - A5104 NE	680	170	625	2175	0.313	681	420	0.6	0.5	2.409	A



Appendix I

A5104/KINNERTON LANE (T-JUNCTION) MODELLING OUTPUTS

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: A110787 190507 A5104 Kinnerton Lane Junction.j9
Path: \\CARDIFF31\Data\data\A110000-A110999\A110787 - Warren Hall, Broughton\30 Technical\31 Modelling
Report generation date: 07/05/2019 16:12:46

- »2019 Observed, AM
- »2019 Observed, PM
- »2024 Forecast, AM
- »2024 Forecast, PM
- »2024 with Development, AM
- »2024 with Development, PM
- »2024 with Development with internalisation, AM
- »2024 with Development with internalisation, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Observed						
Stream B-C	0.2	11.05	0.17	0.3	9.51	0.25
Stream B-A	1.4	25.81	0.60	0.3	15.81	0.23
Stream C-AB	1.2	5.87	0.41	0.4	6.30	0.19
2024 Forecast						
Stream B-C	0.2	12.11	0.19	0.4	9.90	0.27
Stream B-A	1.7	29.15	0.63	0.3	16.68	0.24
Stream C-AB	1.3	6.08	0.43	0.4	6.38	0.21
2024 with Development						
Stream B-C	8.3	390.61	1.16	0.5	13.83	0.35
Stream B-A	29.0	291.25	1.15	0.8	27.31	0.46
Stream C-AB	1.8	6.61	0.50	0.6	7.05	0.26
2024 with Development with internalisation						
Stream B-C	7.3	349.44	1.12	0.5	13.44	0.34
Stream B-A	23.7	247.51	1.11	0.8	26.27	0.44
Stream C-AB	1.8	6.57	0.50	0.6	6.99	0.26

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

File summary

File Description

Title	A5104 / Kinnerton Lane
Location	Broughton
Site number	
Date	29/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	A110787
Enumerator	WYG/ben.maliphant
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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Observed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Observed	PM	ONE HOUR	07:45	09:15	15	✓
D3	2024 Forecast	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Forecast	PM	ONE HOUR	07:45	09:15	15	✓
D5	2024 with Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 with Development	PM	ONE HOUR	07:45	09:15	15	✓
D7	2024 with Development with internalisation	AM	ONE HOUR	07:45	09:15	15	✓
D8	2024 with Development with internalisation	PM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

2019 Observed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A5104 / Kinnerton Lane	T-Junction	Two-way		6.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A5104 East		Major
B	Kinnerton Lane		Minor
C	A5104 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A5104 West	7.69			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Kinnerton Lane	One lane plus flare	10.00	9.26	4.77	3.52	3.29	✓	1.00	40	48

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	570	0.096	0.243	0.153	0.347
1	B-C	686	0.097	0.246	-	-
1	C-B	719	0.258	0.258	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Observed	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5104 East		ONE HOUR	✓	196	100.000
B - Kinnerton Lane		ONE HOUR	✓	246	100.000
C - A5104 West		ONE HOUR	✓	723	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	47	148
	B - Kinnerton Lane	186	0	60
	C - A5104 West	575	148	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	9	9
	B - Kinnerton Lane	4	0	9
	C - A5104 West	4	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.17	11.05	0.2	B	55	82
B-A	0.60	25.81	1.4	D	171	256
C-AB	0.41	5.87	1.2	A	306	459
C-A					358	536
A-B					43	65
A-C					136	204

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	45	11	525	0.086	45	0.0	0.1	7.485	A
B-A	140	35	411	0.341	138	0.0	0.5	13.093	B
C-AB	209	52	923	0.227	208	0.0	0.5	5.027	A
C-A	335	84			335				
A-B	36	9			36				
A-C	112	28			112				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	54	13	483	0.111	54	0.1	0.1	8.380	A
B-A	167	42	383	0.437	167	0.5	0.8	16.522	C
C-AB	286	71	971	0.294	285	0.5	0.7	5.256	A
C-A	364	91			364				
A-B	43	11			43				
A-C	133	33			133				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	66	16	396	0.166	65	0.1	0.2	10.865	B
B-A	205	51	344	0.596	203	0.8	1.4	24.943	C
C-AB	421	105	1037	0.405	419	0.7	1.2	5.838	A
C-A	375	94			375				
A-B	52	13			52				
A-C	163	41			163				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	66	16	392	0.168	66	0.2	0.2	11.047	B
B-A	205	51	344	0.596	205	1.4	1.4	25.812	D
C-AB	422	105	1038	0.406	422	1.2	1.2	5.874	A
C-A	374	94			374				
A-B	52	13			52				
A-C	163	41			163				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	54	13	478	0.112	54	0.2	0.1	8.486	A
B-A	167	42	383	0.438	170	1.4	0.8	17.110	C
C-AB	287	72	972	0.295	289	1.2	0.7	5.301	A
C-A	363	91			363				
A-B	43	11			43				
A-C	133	33			133				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	45	11	522	0.086	45	0.1	0.1	7.547	A
B-A	140	35	411	0.342	141	0.8	0.5	13.425	B
C-AB	211	53	924	0.228	212	0.7	0.5	5.068	A
C-A	334	83			334				
A-B	36	9			36				
A-C	112	28			112				

2019 Observed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A5104 / Kinnerton Lane	T-Junction	Two-way		2.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Observed	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5104 East		ONE HOUR	✓	729	100.000
B - Kinnerton Lane		ONE HOUR	✓	178	100.000
C - A5104 West		ONE HOUR	✓	342	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	141	588
	B - Kinnerton Lane	60	0	118
	C - A5104 West	270	72	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	1	1
	B - Kinnerton Lane	3	0	1
	C - A5104 West	3	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.25	9.51	0.3	A	108	162
B-A	0.23	15.81	0.3	C	55	83
C-AB	0.19	6.30	0.4	A	105	157
C-A					209	314
A-B					129	194
A-C					540	810

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	89	22	586	0.151	88	0.0	0.2	7.213	A
B-A	45	11	372	0.122	45	0.0	0.1	10.979	B
C-AB	77	19	699	0.110	76	0.0	0.2	5.778	A
C-A	181	45			181				
A-B	106	26			106				
A-C	443	111			443				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	106	26	555	0.191	105	0.2	0.2	8.011	A
B-A	54	14	340	0.160	54	0.1	0.2	12.583	B
C-AB	100	25	703	0.142	99	0.2	0.2	5.966	A
C-A	208	52			208				
A-B	126	32			126				
A-C	529	132			529				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	129	32	508	0.255	129	0.2	0.3	9.485	A
B-A	67	17	294	0.226	66	0.2	0.3	15.748	C
C-AB	137	34	710	0.194	137	0.2	0.4	6.292	A
C-A	239	60			239				
A-B	155	39			155				
A-C	648	162			648				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	129	32	508	0.255	129	0.3	0.3	9.514	A
B-A	67	17	294	0.226	67	0.3	0.3	15.807	C
C-AB	138	34	710	0.194	138	0.4	0.4	6.301	A
C-A	239	60			239				
A-B	155	39			155				
A-C	648	162			648				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	106	26	554	0.191	106	0.3	0.2	8.042	A
B-A	54	14	340	0.160	55	0.3	0.2	12.645	B
C-AB	100	25	703	0.142	100	0.4	0.3	5.982	A
C-A	208	52			208				
A-B	126	32			126				
A-C	529	132			529				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	89	22	586	0.151	89	0.2	0.2	7.250	A
B-A	45	11	372	0.122	46	0.2	0.1	11.038	B
C-AB	77	19	700	0.110	77	0.3	0.2	5.793	A
C-A	180	45			180				
A-B	106	26			106				
A-C	443	111			443				

2024 Forecast, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A5104 / Kinnerton Lane	T-Junction	Two-way		7.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Forecast	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5104 East		ONE HOUR	✓	203	100.000
B - Kinnerton Lane		ONE HOUR	✓	255	100.000
C - A5104 West		ONE HOUR	✓	751	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	49	154
	B - Kinnerton Lane	193	0	62
	C - A5104 West	597	153	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	9	9
	B - Kinnerton Lane	4	0	9
	C - A5104 West	4	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.19	12.11	0.2	B	57	85
B-A	0.63	29.15	1.7	D	178	266
C-AB	0.43	6.08	1.3	A	328	493
C-A					360	541
A-B					45	68
A-C					141	212

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	518	0.090	46	0.0	0.1	7.619	A
B-A	146	36	406	0.359	143	0.0	0.5	13.609	B
C-AB	223	56	932	0.239	221	0.0	0.5	5.057	A
C-A	342	86			342				
A-B	37	9			37				
A-C	116	29			116				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	56	14	471	0.118	56	0.1	0.1	8.661	A
B-A	174	43	377	0.462	173	0.5	0.8	17.543	C
C-AB	306	76	982	0.311	305	0.5	0.8	5.326	A
C-A	369	92			369				
A-B	44	11			44				
A-C	138	35			138				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	68	17	372	0.183	68	0.1	0.2	11.833	B
B-A	213	53	336	0.634	210	0.8	1.6	27.847	D
C-AB	454	114	1051	0.432	452	0.8	1.3	6.027	A
C-A	372	93			372				
A-B	54	14			54				
A-C	170	42			170				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	68	17	365	0.187	68	0.2	0.2	12.113	B
B-A	213	53	336	0.635	213	1.6	1.7	29.153	D
C-AB	456	114	1053	0.433	456	1.3	1.3	6.077	A
C-A	371	93			371				
A-B	54	14			54				
A-C	170	42			170				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	56	14	465	0.120	56	0.2	0.1	8.807	A
B-A	174	43	376	0.462	177	1.7	0.9	18.347	C
C-AB	307	77	984	0.312	309	1.3	0.8	5.377	A
C-A	368	92			368				
A-B	44	11			44				
A-C	138	35			138				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	515	0.091	47	0.1	0.1	7.692	A
B-A	146	36	405	0.359	147	0.9	0.6	14.005	B
C-AB	224	56	934	0.240	225	0.8	0.5	5.104	A
C-A	341	85			341				
A-B	37	9			37				
A-C	116	29			116				

2024 Forecast, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A5104 / Kinnerton Lane	T-Junction	Two-way		2.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Forecast	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5104 East		ONE HOUR	✓	756	100.000
B - Kinnerton Lane		ONE HOUR	✓	185	100.000
C - A5104 West		ONE HOUR	✓	355	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	146	610
	B - Kinnerton Lane	63	0	122
	C - A5104 West	280	75	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	1	1
	B - Kinnerton Lane	3	0	1
	C - A5104 West	3	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.27	9.90	0.4	A	112	168
B-A	0.24	16.68	0.3	C	58	86
C-AB	0.21	6.38	0.4	A	111	166
C-A					215	322
A-B					134	201
A-C					560	840

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	92	23	580	0.158	91	0.0	0.2	7.347	A
B-A	47	12	366	0.129	47	0.0	0.1	11.241	B
C-AB	81	20	700	0.115	80	0.0	0.2	5.805	A
C-A	186	47			186				
A-B	110	27			110				
A-C	459	115			459				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	110	27	547	0.200	109	0.2	0.2	8.217	A
B-A	56	14	333	0.169	56	0.1	0.2	13.009	B
C-AB	105	26	704	0.149	105	0.2	0.3	6.013	A
C-A	214	53			214				
A-B	131	33			131				
A-C	549	137			549				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	134	34	498	0.269	134	0.2	0.4	9.867	A
B-A	69	17	285	0.242	69	0.2	0.3	16.600	C
C-AB	146	37	711	0.205	146	0.3	0.4	6.369	A
C-A	244	61			244				
A-B	161	40			161				
A-C	672	168			672				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	134	34	498	0.270	134	0.4	0.4	9.903	A
B-A	69	17	285	0.242	69	0.3	0.3	16.679	C
C-AB	146	37	712	0.206	146	0.4	0.4	6.381	A
C-A	244	61			244				
A-B	161	40			161				
A-C	672	168			672				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	110	27	547	0.200	110	0.4	0.3	8.252	A
B-A	56	14	332	0.169	57	0.3	0.2	13.080	B
C-AB	105	26	704	0.150	106	0.4	0.3	6.033	A
C-A	213	53			213				
A-B	131	33			131				
A-C	549	137			549				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	92	23	580	0.158	92	0.3	0.2	7.384	A
B-A	47	12	366	0.129	47	0.2	0.2	11.307	B
C-AB	81	20	700	0.116	81	0.3	0.2	5.827	A
C-A	186	46			186				
A-B	110	27			110				
A-C	459	115			459				

2024 with Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A5104 / Kinnerton Lane	T-Junction	Two-way		82.35	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 with Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5104 East		ONE HOUR	✓	281	100.000
B - Kinnerton Lane		ONE HOUR	✓	391	100.000
C - A5104 West		ONE HOUR	✓	835	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	85	196
	B - Kinnerton Lane	316	0	75
	C - A5104 West	679	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	8	8
	B - Kinnerton Lane	3	0	8
	C - A5104 West	3	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	1.16	390.61	8.3	F	69	104
B-A	1.15	291.25	29.0	F	290	435
C-AB	0.50	6.61	1.8	A	385	578
C-A					382	572
A-B					78	117
A-C					180	270

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	391	0.145	56	0.0	0.2	10.734	B
B-A	238	59	387	0.615	232	0.0	1.5	22.464	C
C-AB	252	63	962	0.262	249	0.0	0.6	5.046	A
C-A	377	94			377				
A-B	64	16			64				
A-C	148	37			148				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	68	17	235	0.288	67	0.2	0.4	21.269	C
B-A	284	71	351	0.809	276	1.5	3.4	44.161	E
C-AB	354	88	1019	0.348	353	0.6	0.9	5.422	A
C-A	397	99			397				
A-B	76	19			76				
A-C	177	44			177				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	83	21	71	1.165	62	0.4	5.7	235.723	F
B-A	348	87	304	1.142	294	3.4	16.9	151.362	F
C-AB	546	136	1098	0.497	542	0.9	1.8	6.513	A
C-A	374	93			374				
A-B	94	23			94				
A-C	216	54			216				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	83	21	77	1.077	73	5.7	8.3	390.612	F
B-A	348	87	302	1.151	299	16.9	29.0	291.249	F
C-AB	549	137	1100	0.499	548	1.8	1.8	6.605	A
C-A	371	93			371				
A-B	94	23			94				
A-C	216	54			216				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	68	17	86	0.785	79	8.3	5.5	309.936	F
B-A	284	71	342	0.829	331	29.0	17.2	254.049	F
C-AB	356	89	1021	0.349	360	1.8	1.0	5.502	A
C-A	395	99			395				
A-B	76	19			76				
A-C	177	44			177				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	260	0.218	78	5.5	0.3	21.975	C
B-A	238	59	380	0.626	299	17.2	1.9	67.208	F
C-AB	254	63	964	0.263	255	1.0	0.6	5.106	A
C-A	375	94			375				
A-B	64	16			64				
A-C	148	37			148				

2024 with Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A5104 / Kinnerton Lane	T-Junction	Two-way		3.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 with Development	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5104 East		ONE HOUR	✓	934	100.000
B - Kinnerton Lane		ONE HOUR	✓	229	100.000
C - A5104 West		ONE HOUR	✓	394	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	238	696
	B - Kinnerton Lane	103	0	126
	C - A5104 West	309	85	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	1	1
	B - Kinnerton Lane	2	0	1
	C - A5104 West	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.35	13.83	0.5	B	116	174
B-A	0.46	27.31	0.8	D	94	141
C-AB	0.26	7.05	0.6	A	136	204
C-A					225	338
A-B					219	328
A-C					639	958

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	24	531	0.179	94	0.0	0.2	8.231	A
B-A	77	19	345	0.224	76	0.0	0.3	13.346	B
C-AB	96	24	686	0.140	95	0.0	0.2	6.087	A
C-A	200	50			200				
A-B	179	45			179				
A-C	524	131			524				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	113	28	483	0.235	113	0.2	0.3	9.711	A
B-A	92	23	304	0.303	92	0.3	0.4	16.904	C
C-AB	128	32	689	0.186	127	0.2	0.4	6.417	A
C-A	226	57			226				
A-B	214	54			214				
A-C	626	156			626				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	139	35	401	0.346	138	0.3	0.5	13.624	B
B-A	113	28	245	0.461	111	0.4	0.8	26.660	D
C-AB	183	46	696	0.264	182	0.4	0.6	7.025	A
C-A	250	63			250				
A-B	262	66			262				
A-C	766	192			766				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	139	35	399	0.348	139	0.5	0.5	13.835	B
B-A	113	28	244	0.462	113	0.8	0.8	27.314	D
C-AB	184	46	696	0.264	184	0.6	0.6	7.053	A
C-A	250	62			250				
A-B	262	66			262				
A-C	766	192			766				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	113	28	481	0.236	114	0.5	0.3	9.833	A
B-A	92	23	304	0.304	94	0.8	0.4	17.279	C
C-AB	128	32	690	0.186	129	0.6	0.4	6.447	A
C-A	226	56			226				
A-B	214	54			214				
A-C	626	156			626				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	24	529	0.179	95	0.3	0.2	8.301	A
B-A	77	19	344	0.224	78	0.4	0.3	13.540	B
C-AB	97	24	687	0.141	97	0.4	0.2	6.119	A
C-A	200	50			200				
A-B	179	45			179				
A-C	524	131			524				

2024 with Development with internalisation, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A5104 / Kinnerton Lane	T-Junction	Two-way		69.78	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 with Development with internalisation	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5104 East		ONE HOUR	✓	279	100.000
B - Kinnerton Lane		ONE HOUR	✓	379	100.000
C - A5104 West		ONE HOUR	✓	835	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	82	196
	B - Kinnerton Lane	305	0	74
	C - A5104 West	679	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	8	8
	B - Kinnerton Lane	3	0	8
	C - A5104 West	3	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	1.12	349.44	7.3	F	68	102
B-A	1.11	247.51	23.7	F	280	420
C-AB	0.50	6.57	1.8	A	384	576
C-A					382	574
A-B					75	113
A-C					180	270

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	56	14	404	0.138	55	0.0	0.2	10.300	B
B-A	230	57	387	0.593	224	0.0	1.4	21.430	C
C-AB	251	63	963	0.261	249	0.0	0.6	5.042	A
C-A	378	94			378				
A-B	62	15			62				
A-C	148	37			148				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	67	17	261	0.255	66	0.2	0.3	18.413	C
B-A	274	69	352	0.779	268	1.4	3.0	40.038	E
C-AB	353	88	1019	0.346	352	0.6	0.9	5.410	A
C-A	398	99			398				
A-B	74	18			74				
A-C	177	44			177				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	82	20	73	1.123	62	0.3	5.2	218.840	F
B-A	336	84	304	1.103	291	3.0	14.2	133.235	F
C-AB	544	136	1099	0.495	541	0.9	1.8	6.487	A
C-A	375	94			375				
A-B	91	23			91				
A-C	216	54			216				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	82	20	79	1.034	74	5.2	7.3	349.443	F
B-A	336	84	302	1.112	298	14.2	23.7	247.509	F
C-AB	547	137	1100	0.497	547	1.8	1.8	6.575	A
C-A	373	93			373				
A-B	91	23			91				
A-C	216	54			216				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	67	17	89	0.751	78	7.3	4.4	264.349	F
B-A	274	69	342	0.801	328	23.7	10.2	193.892	F
C-AB	355	89	1021	0.348	359	1.8	1.0	5.487	A
C-A	395	99			395				
A-B	74	18			74				
A-C	177	44			177				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	56	14	335	0.167	73	4.4	0.2	14.605	B
B-A	230	57	382	0.601	264	10.2	1.6	37.781	E
C-AB	253	63	964	0.263	255	1.0	0.6	5.097	A
C-A	376	94			376				
A-B	62	15			62				
A-C	148	37			148				

2024 with Development with internalisation, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A5104 / Kinnerton Lane	T-Junction	Two-way		3.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 with Development with internalisation	PM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5104 East		ONE HOUR	✓	927	100.000
B - Kinnerton Lane		ONE HOUR	✓	225	100.000
C - A5104 West		ONE HOUR	✓	393	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	230	696
	B - Kinnerton Lane	99	0	126
	C - A5104 West	309	84	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5104 East	B - Kinnerton Lane	C - A5104 West
From	A - A5104 East	0	1	1
	B - Kinnerton Lane	2	0	1
	C - A5104 West	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.34	13.44	0.5	B	115	173
B-A	0.44	26.27	0.8	D	91	136
C-AB	0.26	6.99	0.6	A	134	201
C-A					226	339
A-B					212	317
A-C					639	958

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	24	534	0.177	94	0.0	0.2	8.170	A
B-A	75	19	345	0.216	74	0.0	0.3	13.210	B
C-AB	95	24	688	0.138	94	0.0	0.2	6.062	A
C-A	201	50			201				
A-B	174	43			174				
A-C	524	131			524				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	113	28	487	0.232	113	0.2	0.3	9.599	A
B-A	89	22	305	0.292	89	0.3	0.4	16.604	C
C-AB	126	32	691	0.183	126	0.2	0.3	6.379	A
C-A	227	57			227				
A-B	207	52			207				
A-C	626	156			626				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	139	35	408	0.339	138	0.3	0.5	13.254	B
B-A	109	27	246	0.443	108	0.4	0.8	25.711	D
C-AB	181	45	697	0.259	180	0.3	0.6	6.967	A
C-A	252	63			252				
A-B	254	63			254				
A-C	766	192			766				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	139	35	406	0.341	138	0.5	0.5	13.435	B
B-A	109	27	246	0.444	109	0.8	0.8	26.274	D
C-AB	181	45	698	0.260	181	0.6	0.6	6.991	A
C-A	251	63			251				
A-B	254	63			254				
A-C	766	192			766				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	113	28	485	0.233	114	0.5	0.3	9.708	A
B-A	89	22	304	0.293	91	0.8	0.4	16.936	C
C-AB	127	32	691	0.183	128	0.6	0.4	6.408	A
C-A	226	57			226				
A-B	207	52			207				
A-C	626	156			626				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	24	532	0.178	95	0.3	0.2	8.238	A
B-A	75	19	345	0.216	75	0.4	0.3	13.377	B
C-AB	96	24	688	0.139	96	0.4	0.2	6.090	A
C-A	200	50			200				
A-B	174	43			174				
A-C	524	131			524				



Appendix J

KINNERTON LANE/MAIN ROAD MODELLING OUTPUTS

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
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Filename: A110787 190507 Main Road Kinnerton Lane Junction.j9
Path: \\CARDIFF31\Data\data\A110000-A110999\A110787 - Warren Hall, Broughton\30 Technical\31 Modelling
Report generation date: 07/05/2019 16:11:24

«2024 with Development and internalisation, PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Observed						
Stream B-C	0.3	8.98	0.25	0.2	9.89	0.18
Stream B-A	0.3	13.59	0.24	0.6	13.39	0.36
Stream C-AB	0.3	8.22	0.22	0.4	7.25	0.24
2024 Forecast						
Stream B-C	0.4	9.21	0.26	0.2	10.13	0.19
Stream B-A	0.3	13.98	0.25	0.6	13.88	0.38
Stream C-AB	0.3	8.34	0.23	0.4	7.32	0.25
2024 with Development						
Stream B-C	0.5	10.75	0.34	0.3	11.18	0.23
Stream B-A	0.5	16.14	0.33	0.8	15.86	0.44
Stream C-AB	0.4	8.70	0.26	0.5	7.78	0.29
2024 with Development and internalisation						
Stream B-C	0.5	10.60	0.33	0.3	11.12	0.23
Stream B-A	0.5	15.93	0.32	0.8	15.74	0.44
Stream C-AB	0.4	8.69	0.26	0.5	7.74	0.29

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

File summary

File Description

Title	Main Road / Kinnerton Lane
Location	Higher Kinnerton
Site number	
Date	29/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	A110787
Enumerator	WYG\ben.maliphant
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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

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

Analysis Set Details

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

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 with Development and internalisation	PM	ONE HOUR	16:45	18:15	15	✓

2024 with Development and internalisation, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Main Road / Kinnerton Lane	T-Junction	Two-way		7.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Main Road Southwest		Major
B	Kinnerton Lane		Minor
C	Main Road Northeast		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Main Road Northeast	6.80			133.5	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Kinnerton Lane	One lane plus flare	7.17	5.00	3.72	3.00	2.51	✓	1.00	65	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564	0.099	0.251	0.158	0.358
1	B-C	585	0.087	0.219	-	-
1	C-B	651	0.244	0.244	-	-

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

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

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

Traffic Demand

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 (Veh/hr)	Scaling Factor (%)
A - Main Road Southwest		ONE HOUR	✓	134	100.000
B - Kinnerton Lane		ONE HOUR	✓	250	100.000
C - Main Road Northeast		ONE HOUR	✓	261	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Main Road Southwest	B - Kinnerton Lane	C - Main Road Northeast
From	A - Main Road Southwest	0	85	49
	B - Kinnerton Lane	163	0	86
	C - Main Road Northeast	124	136	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Main Road Southwest	B - Kinnerton Lane	C - Main Road Northeast
From	A - Main Road Southwest	0	8	8
	B - Kinnerton Lane	10	0	10
	C - Main Road Northeast	8	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.23	11.12	0.3	B	79	119
B-A	0.44	15.74	0.8	C	150	225
C-AB	0.29	7.74	0.5	A	153	229
C-A					86	129
A-B					78	118
A-C					45	67

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	16	474	0.137	64	0.0	0.2	8.774	A
B-A	123	31	446	0.276	121	0.0	0.4	11.058	B
C-AB	120	30	637	0.188	119	0.0	0.3	6.937	A
C-A	76	19			76				
A-B	64	16			64				
A-C	37	9			37				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	78	19	454	0.171	77	0.2	0.2	9.551	A
B-A	147	37	430	0.341	146	0.4	0.5	12.641	B
C-AB	148	37	645	0.230	148	0.3	0.3	7.244	A
C-A	86	21			86				
A-B	77	19			77				
A-C	44	11			44				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	24	420	0.226	95	0.2	0.3	11.061	B
B-A	180	45	409	0.440	179	0.5	0.8	15.593	C
C-AB	190	47	655	0.290	189	0.3	0.5	7.724	A
C-A	97	24			97				
A-B	94	24			94				
A-C	54	13			54				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	24	419	0.227	95	0.3	0.3	11.119	B
B-A	180	45	408	0.440	180	0.8	0.8	15.736	C
C-AB	190	47	655	0.290	190	0.5	0.5	7.741	A
C-A	97	24			97				
A-B	94	24			94				
A-C	54	13			54				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	78	19	453	0.171	78	0.3	0.2	9.613	A
B-A	147	37	430	0.341	148	0.8	0.5	12.785	B
C-AB	148	37	645	0.230	149	0.5	0.4	7.268	A
C-A	86	21			86				
A-B	77	19			77				
A-C	44	11			44				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	16	473	0.137	65	0.2	0.2	8.840	A
B-A	123	31	445	0.276	123	0.5	0.4	11.211	B
C-AB	120	30	638	0.189	121	0.4	0.3	6.972	A
C-A	76	19			76				
A-B	64	16			64				
A-C	37	9			37				