Eddisons

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RESIDENTIAL DEVELOPMENT, LAND AT TAN Y BONT, RHOSROBIN, WREXHAM (3273)
TRAFFIC IMPACT NOTE - JULY 2024

Introduction

Eddisons have been instructed by Castle Green Homes to advise on the transport and highways implications of amending the above residential development on land at Tan Y Bont in the Rhosrobin area of Wrexham.

Following submission of a Highways Note (Document ref no. 3273 TN - April 2024.1), comments have been received from the highways officer at Wrexham Council, attached **Appendix 1**.

Overall, the officer raised no concerns regarding the application, but did make reference to trip generation in his Summary by saying:

'The trip generation data provided appears to be lower than what we would usually expect to see for a site of this type, however, it is not envisaged that the trip generation generated from the proposed uplift in houses would cause issues on the highway network in the vicinity of the site'.

In response to the above, this Note has been updated to reconsider the trip rates utilised, to provide additional reassurance that the amended proposals will not have a material impact or give rise to any road safety issues.

Development Proposals

As previously stated, Castle Green Homes are proposing to amend the development site (application ref: P/2021/0135), which is currently under construction. They are considering a replan of later phases of development to replace larger dwellings with smaller dwellings increasing the number from 189 to 209 homes.

The internal road arrangement and vehicular access are not changing as part of the amended development.

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Traffic Impact

The traffic impact of the consented 189 homes (application ref: P/2021/0135) has already been considered acceptable by Wrexham Council. The original traffic impact analysis was covered in detail within the Transport Statement (TS), dated January 2023, that supported the planning application. Although the proposed 209 homes would be smaller in size than the consented 189 homes, it will be assumed, for robustness, for the purposes of this particular analysis that all of the additional homes would generate extra traffic.

In order to establish the number of trips which the additional 20 dwellings is forecast to generate the TRICS database has been used for the 'Residential – Houses Privately Owned' range of sites using the same parameters as was used in the TS which were as follows:

- Range between 0 and 300 dwellings
- Monday to Friday surveys
- Sites in Greater London and Eire excluded.

A summary of these trip rates and the likely level of trips that would occur as a result of the extra 20 units is included in **Table 1**, below, whilst the output is contained within **Appendix 2**.

Period	Trip Rate		Trips	
	Arr	Dep	Arr	Dep
AM Peak Hour	0.126	0.329	3	7
PM Peak Hour	0.297	0.156	6	3

Table 1 - Proposed Development Trip Rates and Trips (20 Units)

As can be seen above, the proposed additional 20 units is forecast to generate a total of no more 10 two-way trips in either the AM or PM peaks. This equates to an additional two-way trip every 6 minutes.

In light of such a minimal impact, it is considered that such increases are within the normal variation of daily traffic flows and will not result in a material change to traffic conditions.

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As already stated, the highways officer did query the trip rates used (presented above), more specifically, the officer noted that:

'In regards to the increase in trips associated with an additional twenty dwellinghouses. A traffic impact note has been submitted with the pre-application pack, the applicant has referenced a TRICS assessment but does not demonstrate the raw data, the trip rates are lower that we would anticipate for a site of this type, usually approximately 0.5 total per peak hour, these levels seem a little lower than usual and therefore the LHA would recommend another look at comparable sites within similar types of areas to hone the TRICS further. But it isn't envisaged that the extra trips from the site are likely to cause issues on the existing and proposed highway network in the vicinity of the site.'

To address the above, the trip rates have been reconsidered and reference has been made to a consented residential development on Land off Wrexham Road, Holt.

A summary of the agreed trip rates from that application and the likely level of trips that would occur as a result of the proposed 20no. additional dwellings is included in **Table 2** below.

Period	Trip Rate		Trips	
	Arr	Dep	Arr	Dep
AM Peak Hour	0.124	0.476	2	10
PM Peak Hour	0.482	0.259	10	5

Table 2 Agreed Trip Rates and Trips (20 Units)

As can be seen, the proposed residential development is forecast to generate approximately 12 two-way trips in the AM and around 15 two-way trips in the PM peak.

The above assessment can be considered to be robust and, in any event, continues to show that the traffic impact of the proposals will be minimal. The trip rates set out above are indeed in excess of the suggested total two-way trips of 0.500 below, having a two-way total of 0.600 in the AM peak and 0.741 in the PM peak.

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It is considered that such increases are within the normal variation of daily traffic flows and will not result in a material change to traffic conditions.

Conclusions

This note has been updated to address the comments raised by the highway departments at Wrexham Council in regard to trip generation.

The use of a much higher trip rate, previously agreed as part of a similar residential development continue to demonstrate that the impact of the additional units would be negligible.

In summary, the proposed amendments to the development site at Tan Y Bont in Rhosrobin will not result in a material traffic impact and should therefore be considered acceptable on transport and highways grounds.

Encs.

Appendix 1 Wrexham Council Comments
Appendix 2 TRICS Output

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APPENDICES

APPENDIX 1

Wrexham Council Comments

Cyngor Bwrdeistref Sirol Wrecsam/ Wrexham County Borough Council
Neuadd y Dref, Wrecsam. LL11 1AY
Guildhall, Wrexham. LL11 1AY
www.wrecsam.gov.uk www.wrexham.gov.uk
Cyfnewid Testun/Text Relay: 18001

Sean McBride
Castle Green Homes
Sean.Mcbride@castlegreenhomes.uk

Eich Cyf/Your Ref	
Ein Cyf/Our ref	ET/MZ/PRE/2024/007
Dyddiad/Date	04/06/2024
Gofynner am/Ask for	Ms M Zenner
Rhif Cyswllt/Contact No	01978 729687
E-bost/E-mail	michelle.zenner@wrexham.gov.uk

FAO: Sean McBride

Dear Sir

Tan y Bont, Main Road, Old Rhosrobin, Wrexham LL11 4RL
Full application to replan and substitute 43 no plots of approved scheme to increase overall numbers across the site to 209 homes (189 presently approved)

Further to your email dated 26/04/2024 the LHA can provide the following comments:

It is the LHA's understanding that the proposals are for the substitution of 43 no plots on the approved scheme (Reserved Matters P/2021/0135) to increase the number of dwellings in part of the development from 189 dwellings to 209 dwellings, an increase of 20 dwellings overall. The proposals look to provide an additional 5 affordable dwellings within the mix.

Trip Generation

In regards to the increase in trips associated with an additional twenty dwellinghouses. A traffic impact note has been submitted with the pre-application pack, the applicant has referenced a TRICS assessment but does not demonstrate the raw data, the trip rates are lower that we would anticipate for a site of this type, usually approximately 0.5 total per peak hour, these levels seem a little lower than usual and therefore the LHA would recommend another look at comparable sites within similar types of areas to hone the TRICS further. But it isn't envisaged that the extra trips from the site are likely to cause issues on the existing and proposed highway network in the vicinity of the site.

Design Matters

Access arrangements

The proposed highway layout isn't proposed to substantially change as part of the proposals and therefore it is considered that the swept paths previously submitted as part of the reserved matters application should be acceptable. There is a minor amendment from two cul-de-sacs closest to the L.E.A.P but this is not likely to cause any significant issues.

Parking

It is noted that the applicant intends to comply with the Councils car and cycle parking standards set out in Local Planning Guidance Note No.16. It must be noted that garages will not be counted as contributing towards on-site parking provision and driveways should be wide enough to allow pedestrian access alongside parked cars (including wheelchair access).

Rydym yn croesawu gohebiaeth yn Gymraeg. Byddwn yn ymateb i unrhyw ohebiaeth yn Gymraeg ac ni fydd hyn yn arwain at unrhyw oedi.
We welcome correspondence in Welsh. We will respond to any correspondence in Welsh and this will not lead to any delay.

A brief review of the illustrative layout has resulted in some concerns from an arrangement perspective.

There are concerns that the long lengths of dropped kerbs for parking arrangements shown especially infront of plots 124,125,126,127,128,129,130, Plots 89-91, 103-108, 100-101 provide little scope for on-street visitor parking, which is of a concern where many of the units fall short of the Wrexham County Borough Council car parking standards which require 2 car parking spaces per 2 bedroom dwellinghouse and 3 car parking spaces per 3 or 4 bedroom dwellinghouse. Some of the driveways indicated for 3 cars don't appear large enough to accommodate 3 cars and therefore the LHA would ask for the dimensions to be clarified within a planning submission.

The applicant is requested to consider this further to ensure visitor parking does not obstruct accesses and to ensure that overflow parking doesn't result in obstructive parking at site access junctions which could compromise highway safety.

Long lengths of dropped kerbs to provide multiple parking spaces in a row also restrict pedestrian visibility from parking spaces that abut other parking spaces. This could compromise pedestrian safety for children walking on footways or shared surfaces to the rear of the spaces. Pedestrian visibility splays of 2m x 2m with nothing higher than 0.6m should be provided.

The driveway proposed for Plot 192 is not acceptable as it offers restricted visibility for the driver to access and egress the driveway, visibility would be at an oblique angle, parking arrangements should be designed at 90 degrees to the carriageway in order to be acceptable on safety grounds.

The applicant should ensure that 6m aisle widths are provided behind all proposed driveways or parking areas. The LHA has been unable to scale off the plan, it doesn't appear to scale correctly as a PDF.

A minor amendment may be required to the driveway for unit 113 which at the moment appears to encourage reversing over the widest extent of footway at the bottom of the turning head which is not acceptable on pedestrian safety grounds.

There are concerns over the parking arrangements for plot 208, parking at the rear where homeowners cannot easily overlook their vehicles is not desirable and can encourage further parking on pavements in the vicinity of the frontage to the property. This is reinforced on page 108 of Manual for Streets which states that spaces must be well overlooked for security purposes.

The provision of electric vehicle charging points should be provided for all dwellings.

Highway Layout

Where there are no footways proposed on-street there will be a requirement for a service strip to be installed and the provision of required infrastructure such as street lighting.

Refuse Collection / Recycling

The Councils waste management team are currently working on a new waste strategy and new collections policy which will be finalised shortly.

The current standards that WCBC work to (other than on unadopted roads):

- Refuse vehicles are 11.2m long and swept paths should be demonstrated within proposed highway layouts
- A refuse vehicle will not reverse further than 12m
- A maximum distance of 15m for refuse operatives or residents to walk to move a bin

Summary

In light of the comments above, whilst there are no objections in principle to the proposals there are concerns in regard to the layout and provision of parking spaces. Long lengths of parking spaces which are provided behind a footway are not acceptable on pedestrian safety grounds as they reduce visibility and could mask a child walking along the footway. Pedestrian visibility splays of 2m x 2m x 0.6m should be providing from all parking spaces. Furthermore the long lengths of dropped kerb remove space for on-street visitor parking which is critical in locations where the applicant is proposing less parking than is required in the Councils car parking standards. The applicant is encouraged to meet the parking standards and to ensure that access to rear gardens is provided for bin storage and to store cycles, especially for terraced dwellings.

The trip generation data provided appears to be lower than what we would usually expect to see for a site of this type, however, it is not envisaged that the trip generation generated from the proposed uplift in houses would cause issues on the highway network in the vicinity of the site.

Yours faithfully,



Chief Officer, Environment & Technical

Darren Williams

Prif Swyddog Amgylchedd a Thechnegol
Chief Officer Environment & Technical

APPENDIX 2

TRICS Output

Calculation Reference: AUDIT-851401-180828-0818

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	2 days
	KC	KENT	2 days
	WS	WEST SUSSEX	2 days
03	SOUTH WEST		
	DV	DEVON	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	1 days
09	NORTH		
	DH	DURHAM	1 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: Number of dwellings
Actual Range: 110 to 288 (units:)
Range Selected by User: 100 to 300 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 19/04/18

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	2 days
Tuesday	1 days
Wednesday	3 days
Thursday	2 days
Friday	4 days

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

Selected survey types:

Manual count	12 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	7
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	12

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

Secondary Filtering selection:

Use Class:

C3	12 days

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

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	1 days
10,001 to 15,000	5 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	5 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	9 days

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

Travel Plan:

Yes	2 days
No	10 days

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

PTAL Rating:

No PTAL Present	12 days

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

LIST OF SITES relevant to selection parameters

1 DH-03-A-02 MIXED HOUSES DURHAM
LEAZES LANE
BISHOP AUCKLAND
ST HELEN AUCKLAND
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Number of dwellings: 125
Survey date: MONDAY *27/03/17* *Survey Type: MANUAL*

2 DV-03-A-02 HOUSES & BUNGALOWS DEVON
MILLHEAD ROAD
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 116
Survey date: FRIDAY *25/09/15* *Survey Type: MANUAL*

3 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total Number of dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

4 ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total Number of dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

5 FA-03-A-02 MIXED HOUSES FALKIRK
ROSEBANK AVENUE & SPRINGFIELD DRIVE
FALKIRK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 161
Survey date: WEDNESDAY *29/05/13* *Survey Type: MANUAL*

6 KC-03-A-04 SEMI-DETACHED & TERRACED KENT
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total Number of dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

7 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total Number of dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

8 NE-03-A-03 PRIVATE HOUSES NORTH EAST LINCOLNSHIRE
STATION ROAD
SCUNTHORPE

Edge of Town Centre
Residential Zone
Total Number of dwellings: 180
Survey date: TUESDAY *20/05/14* *Survey Type: MANUAL*

9 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE
HORSEFAIR
BOROUGHBRIDGE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: FRIDAY *14/10/11* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE
BEACONSIDE
STAFFORD
MARSTON GATE
Edge of Town
Residential Zone
Total Number of dwellings: 248
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

11 WS-03-A-04 MIXED HOUSES WEST SUSSEX
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

12 WS-03-A-08 MIXED HOUSES WEST SUSSEX
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total Number of dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AN-03-A-06	Ire/Ldn
AN-03-A-08	Ire/Ldn
AN-03-A-09	Ire/Ldn
AR-03-A-01	Ire/Ldn
DL-03-A-03	Ire/Ldn
DL-03-A-06	Ire/Ldn
DN-03-A-05	Ire/Ldn
WA-03-A-04	Ire/Ldn

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	12	168	0.076	12	168	0.235	12	168	0.311
08:00 - 09:00	12	168	0.126	12	168	0.329	12	168	0.455
09:00 - 10:00	12	168	0.140	12	168	0.153	12	168	0.293
10:00 - 11:00	12	168	0.130	12	168	0.155	12	168	0.285
11:00 - 12:00	12	168	0.130	12	168	0.153	12	168	0.283
12:00 - 13:00	12	168	0.152	12	168	0.139	12	168	0.291
13:00 - 14:00	12	168	0.167	12	168	0.153	12	168	0.320
14:00 - 15:00	12	168	0.159	12	168	0.169	12	168	0.328
15:00 - 16:00	12	168	0.244	12	168	0.160	12	168	0.404
16:00 - 17:00	12	168	0.239	12	168	0.164	12	168	0.403
17:00 - 18:00	12	168	0.297	12	168	0.156	12	168	0.453
18:00 - 19:00	12	168	0.221	12	168	0.163	12	168	0.384
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.081			2.129			4.210

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.*

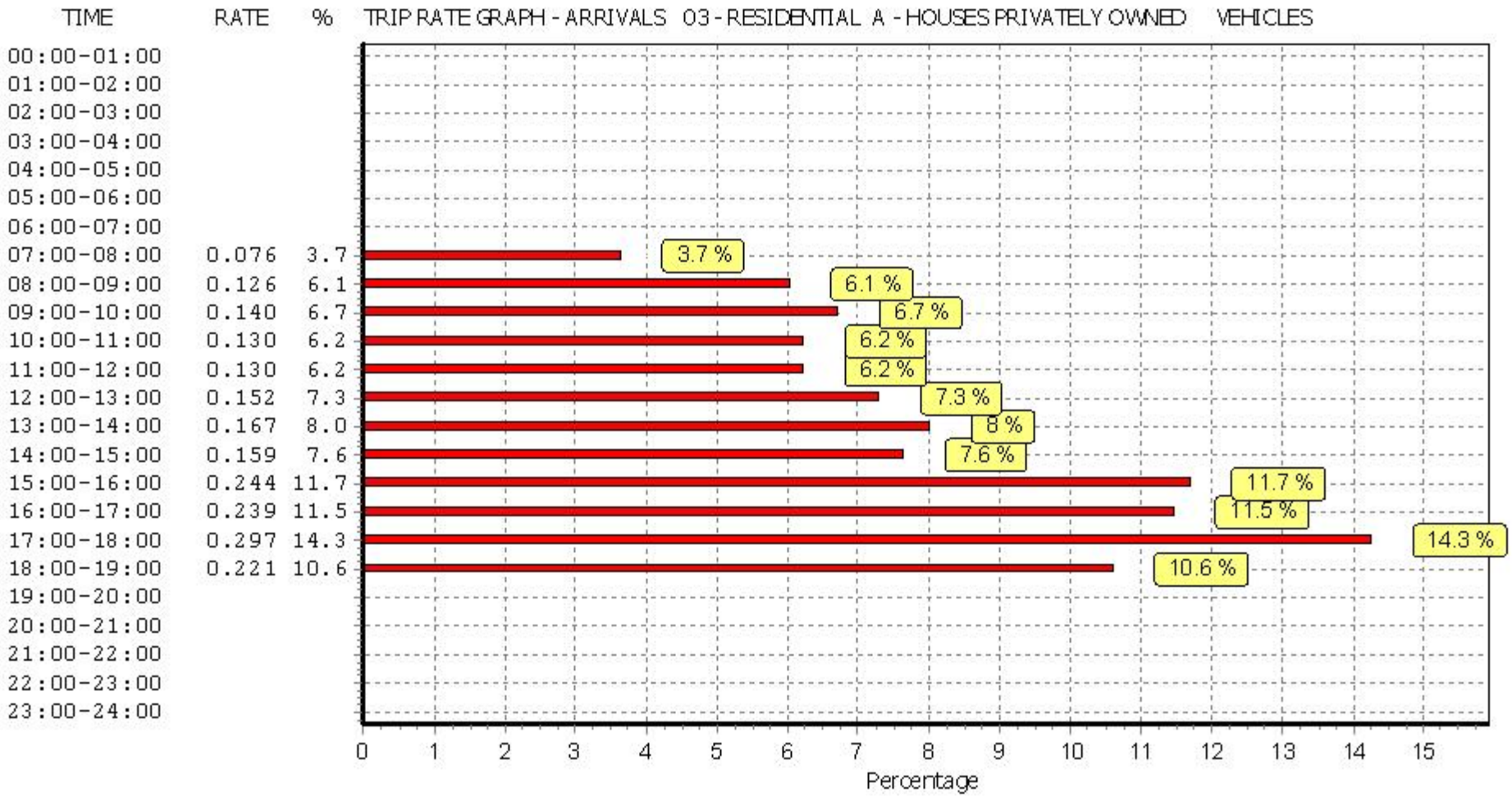
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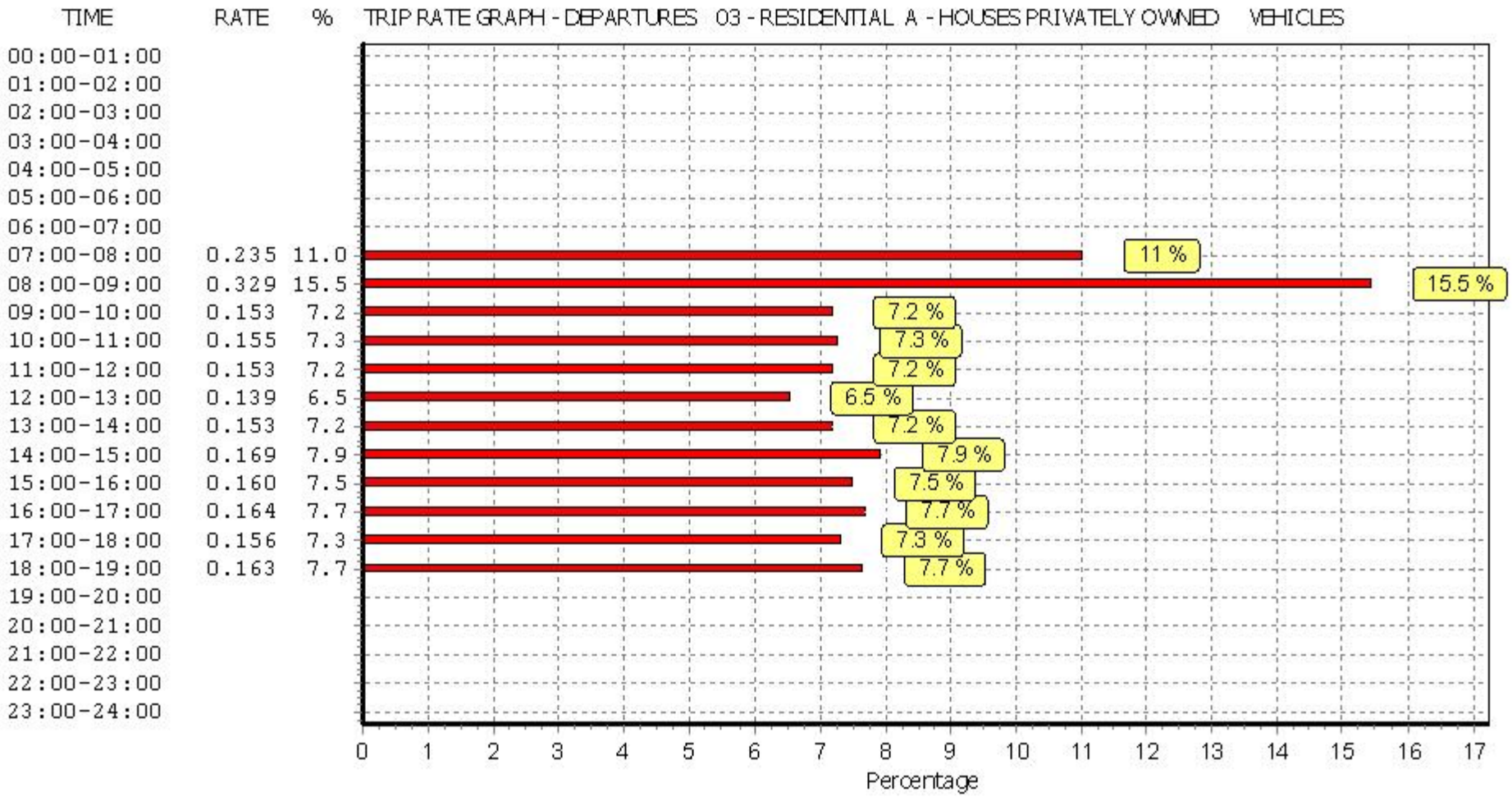
Parameter summary

Trip rate parameter range selected:	110 - 288 (units:)
Survey date date range:	01/01/10 - 19/04/18
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	8

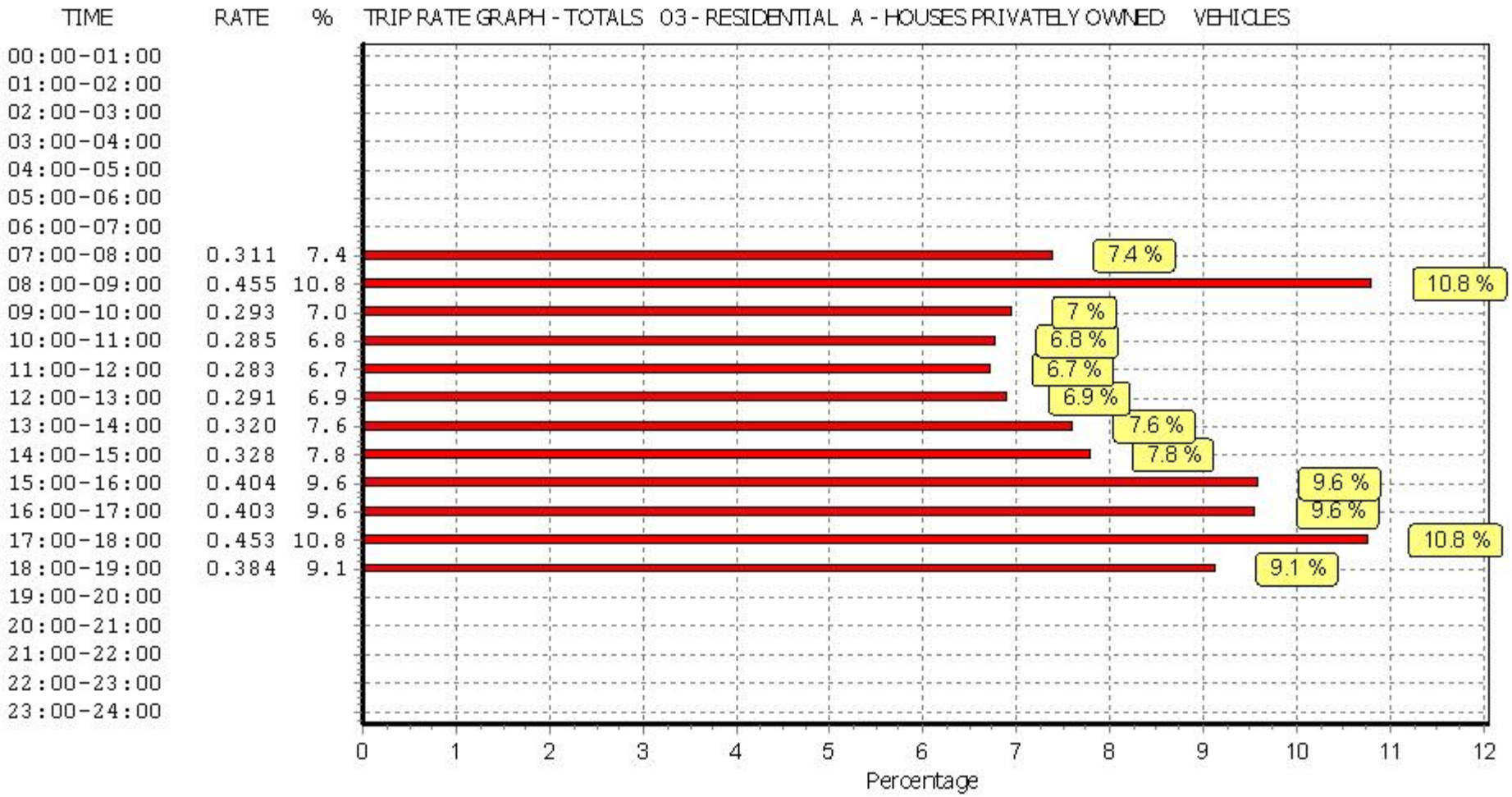
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.



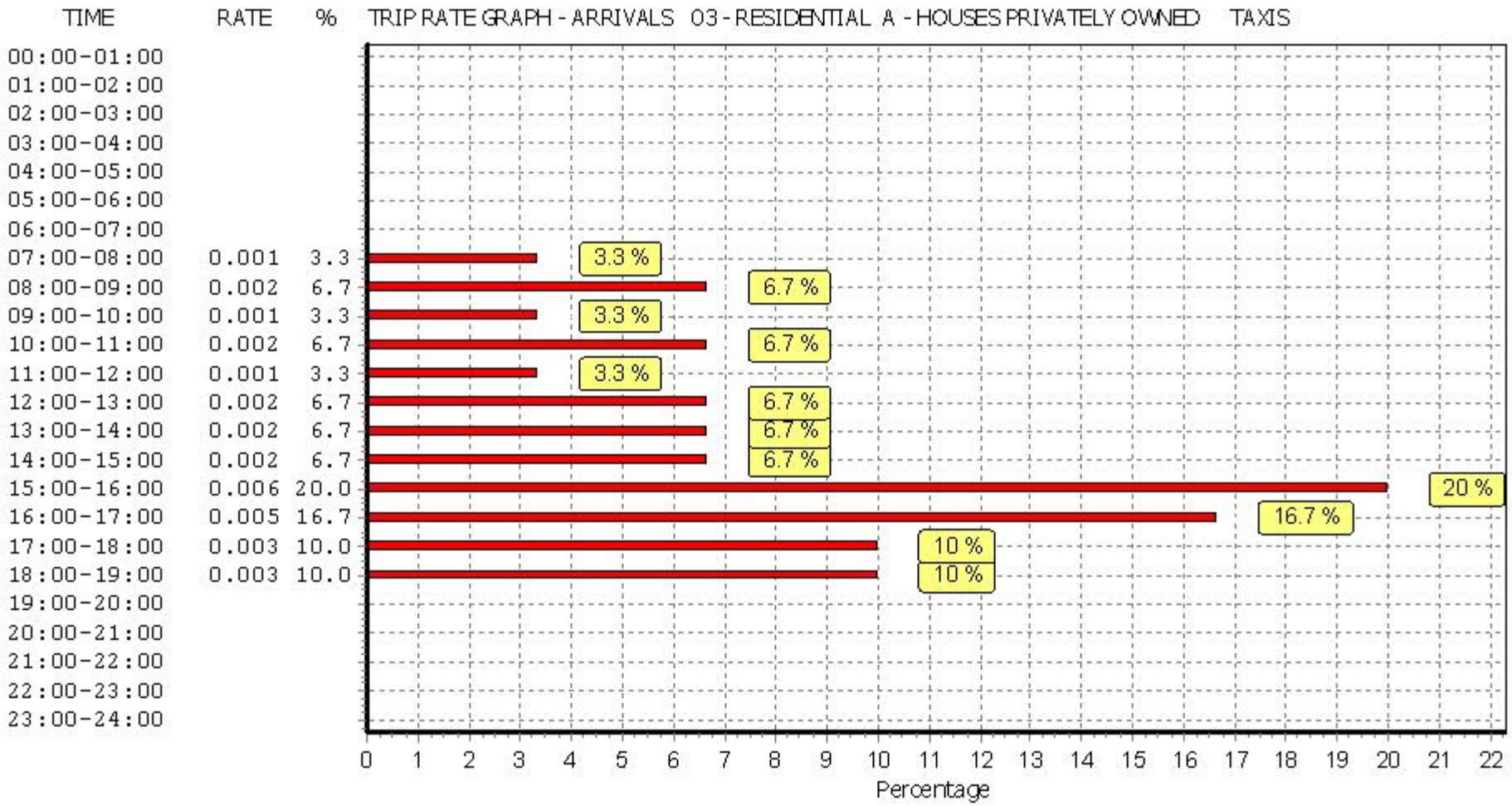
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

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

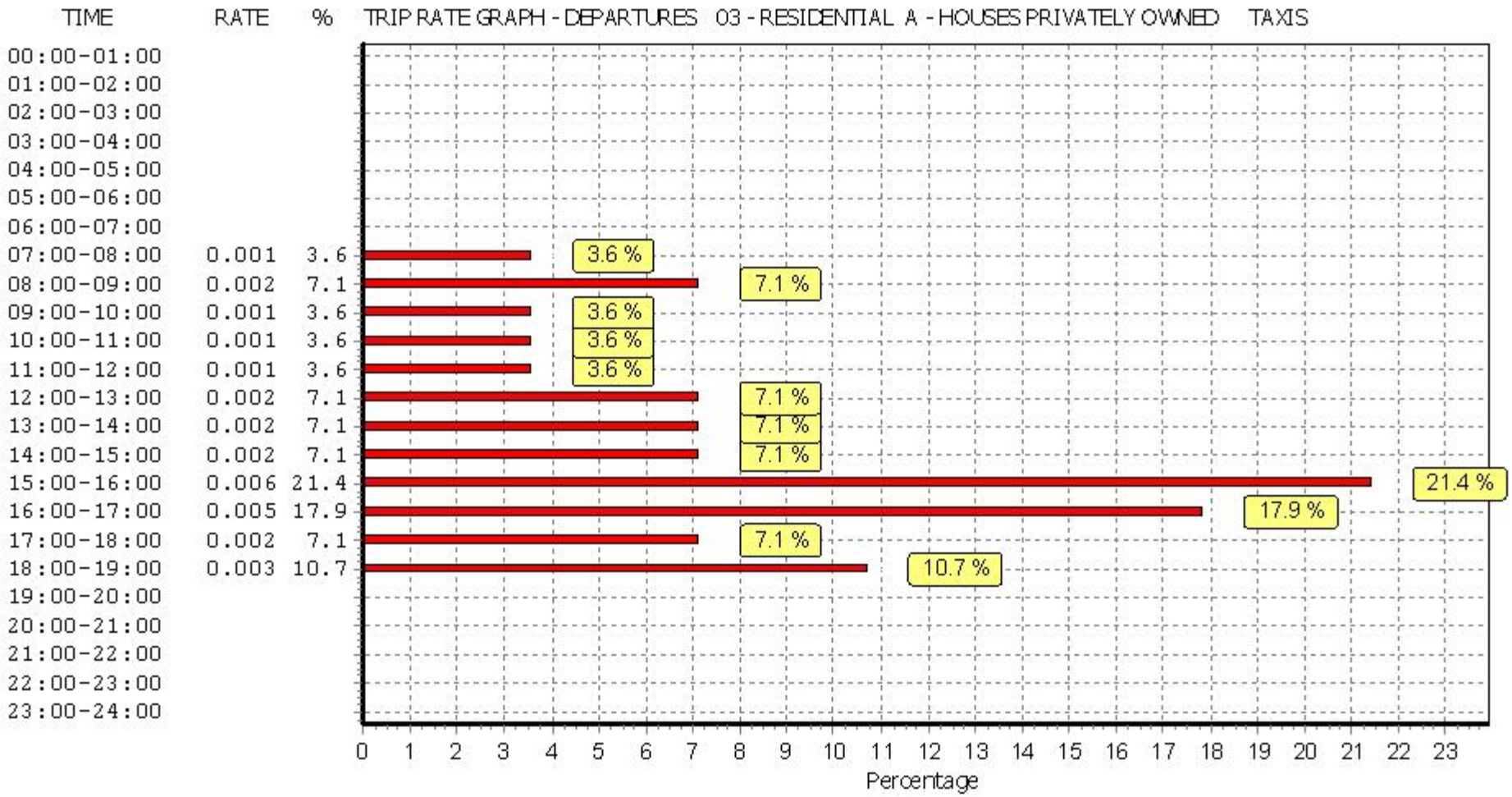
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	168	0.001	12	168	0.001	12	168	0.002
08:00 - 09:00	12	168	0.002	12	168	0.002	12	168	0.004
09:00 - 10:00	12	168	0.001	12	168	0.001	12	168	0.002
10:00 - 11:00	12	168	0.002	12	168	0.001	12	168	0.003
11:00 - 12:00	12	168	0.001	12	168	0.001	12	168	0.002
12:00 - 13:00	12	168	0.002	12	168	0.002	12	168	0.004
13:00 - 14:00	12	168	0.002	12	168	0.002	12	168	0.004
14:00 - 15:00	12	168	0.002	12	168	0.002	12	168	0.004
15:00 - 16:00	12	168	0.006	12	168	0.006	12	168	0.012
16:00 - 17:00	12	168	0.005	12	168	0.005	12	168	0.010
17:00 - 18:00	12	168	0.003	12	168	0.002	12	168	0.005
18:00 - 19:00	12	168	0.003	12	168	0.003	12	168	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.030			0.028			0.058

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.

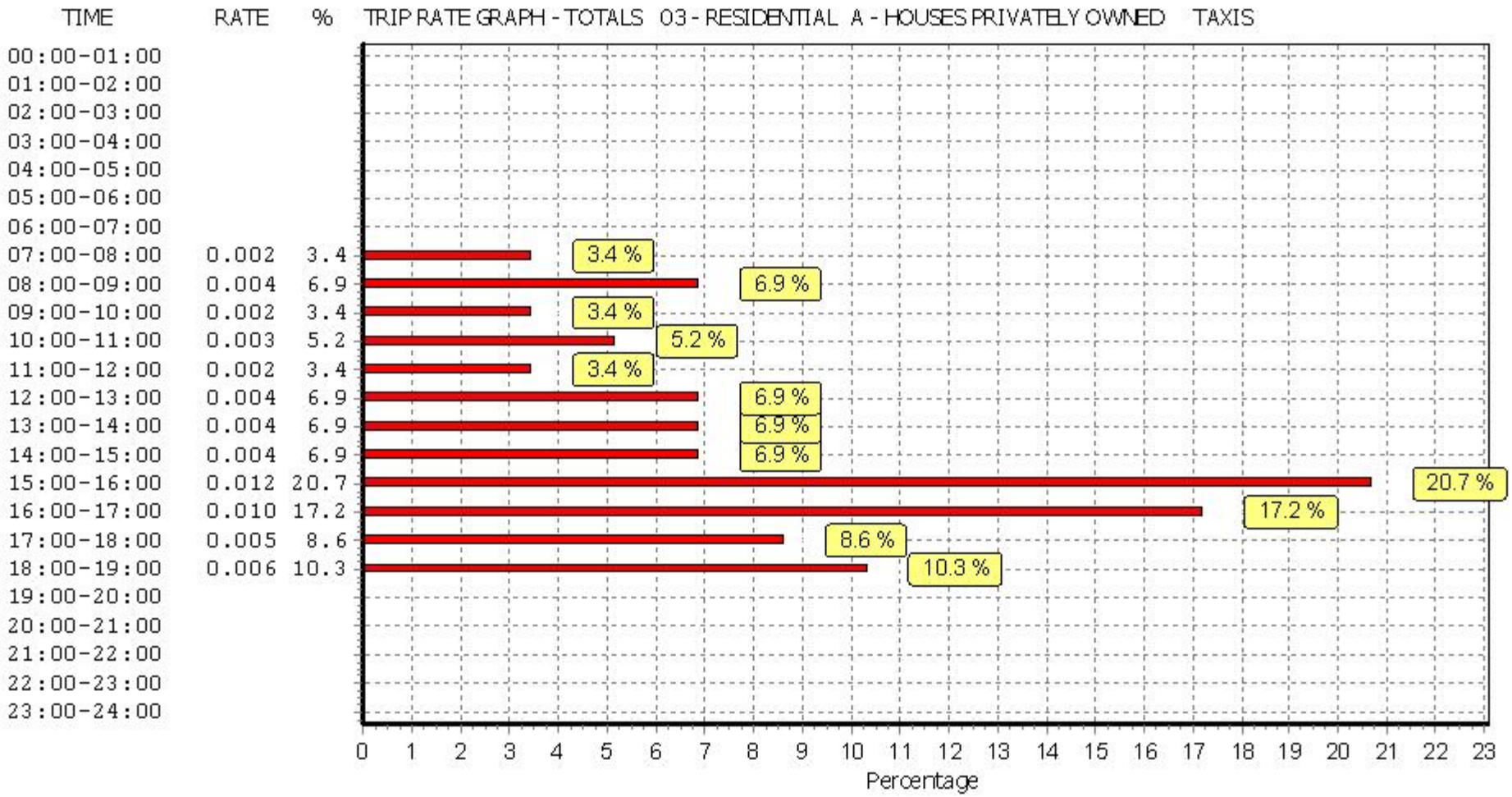
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



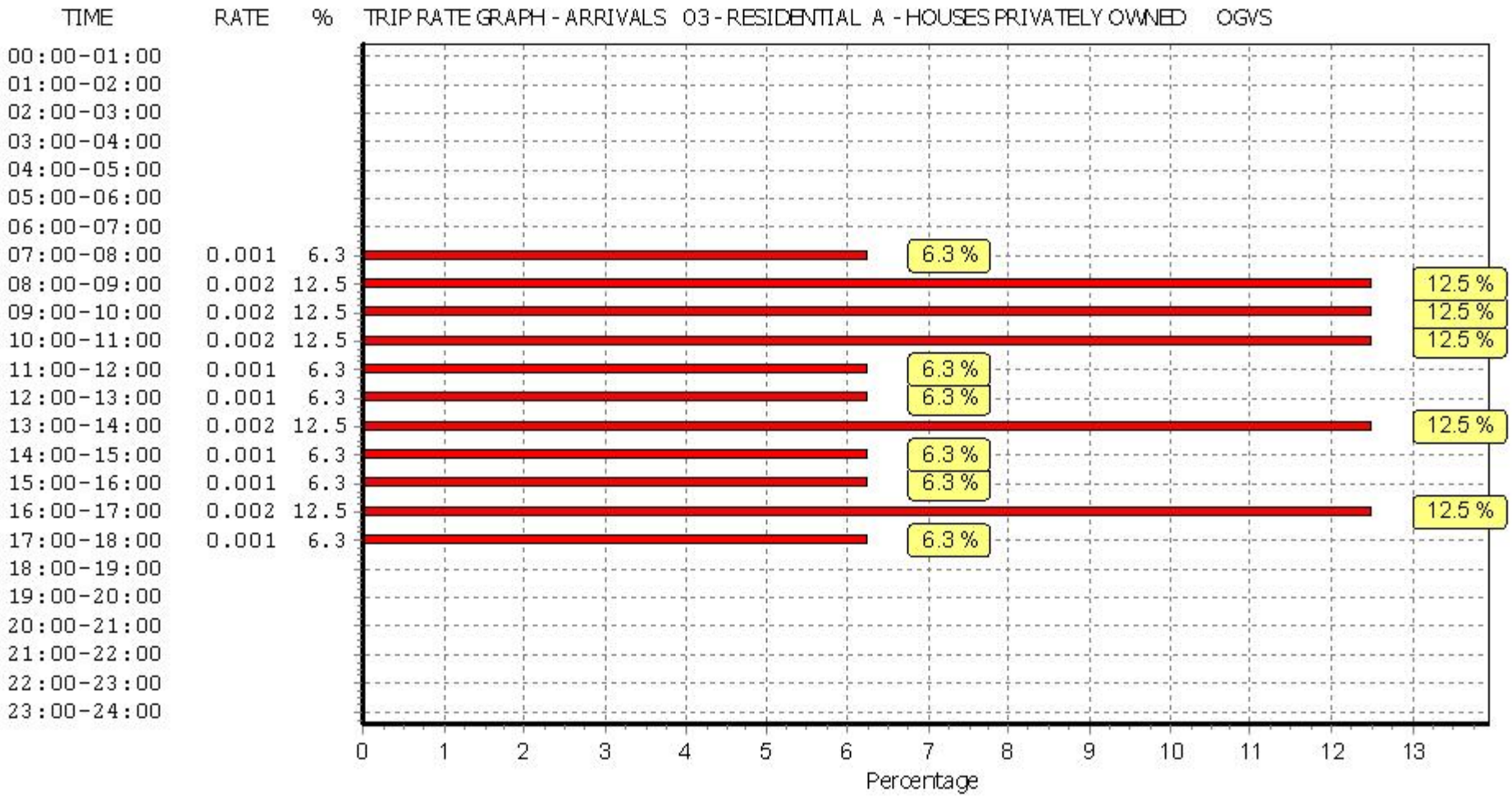
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through 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
OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

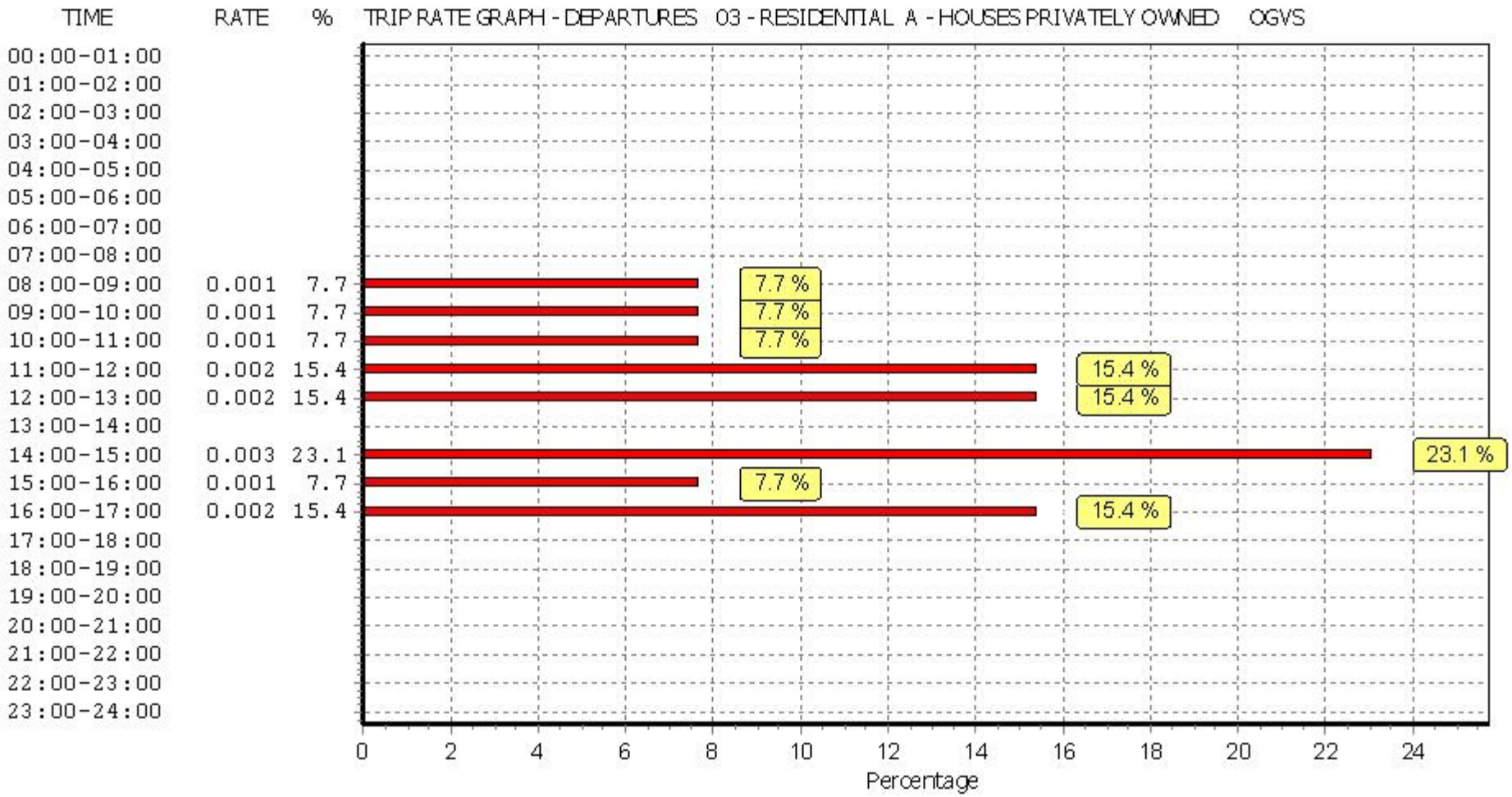
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	168	0.001	12	168	0.000	12	168	0.001
08:00 - 09:00	12	168	0.002	12	168	0.001	12	168	0.003
09:00 - 10:00	12	168	0.002	12	168	0.001	12	168	0.003
10:00 - 11:00	12	168	0.002	12	168	0.001	12	168	0.003
11:00 - 12:00	12	168	0.001	12	168	0.002	12	168	0.003
12:00 - 13:00	12	168	0.001	12	168	0.002	12	168	0.003
13:00 - 14:00	12	168	0.002	12	168	0.000	12	168	0.002
14:00 - 15:00	12	168	0.001	12	168	0.003	12	168	0.004
15:00 - 16:00	12	168	0.001	12	168	0.001	12	168	0.002
16:00 - 17:00	12	168	0.002	12	168	0.002	12	168	0.004
17:00 - 18:00	12	168	0.001	12	168	0.000	12	168	0.001
18:00 - 19:00	12	168	0.000	12	168	0.000	12	168	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.016			0.013			0.029

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.

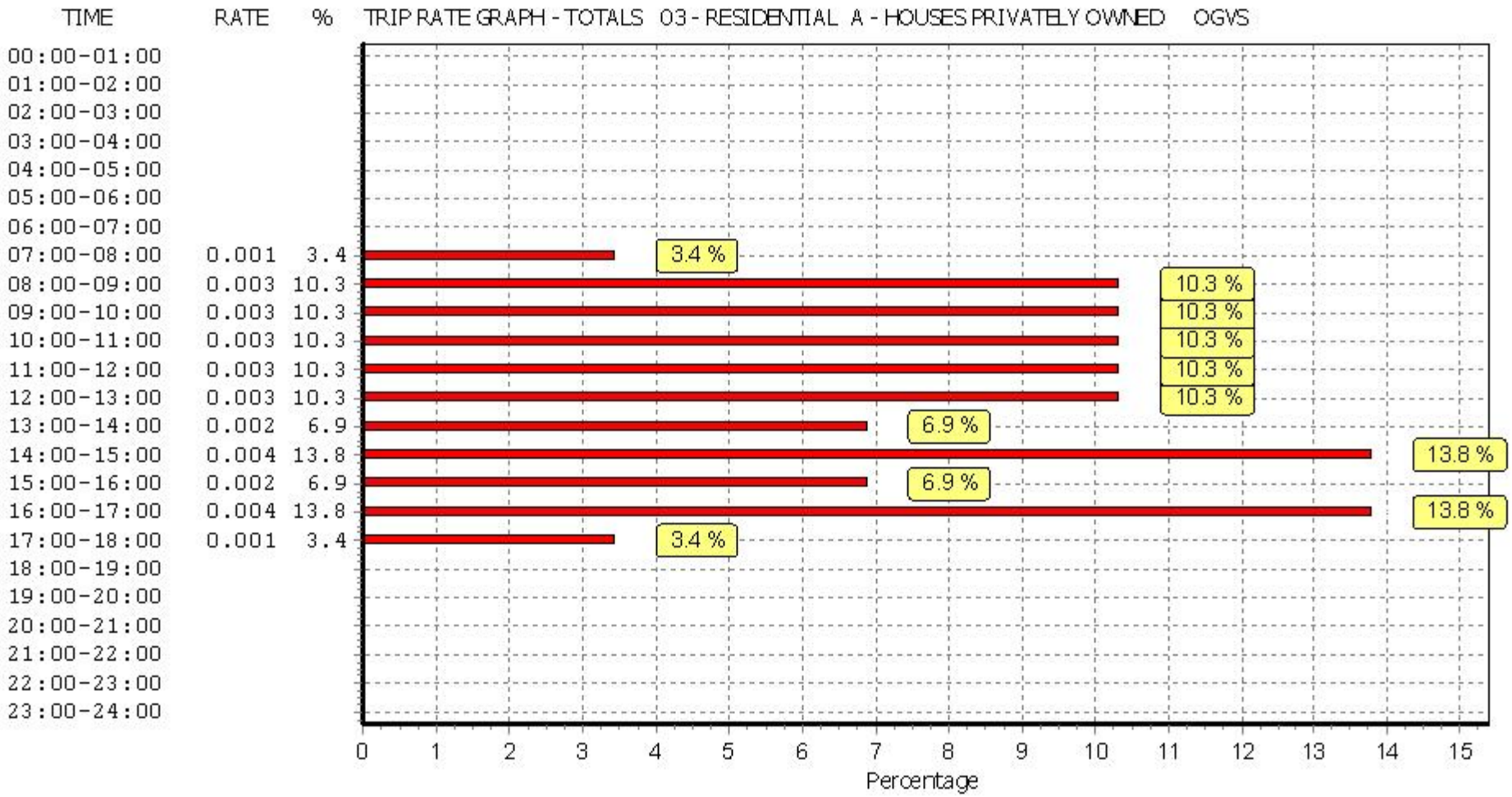
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



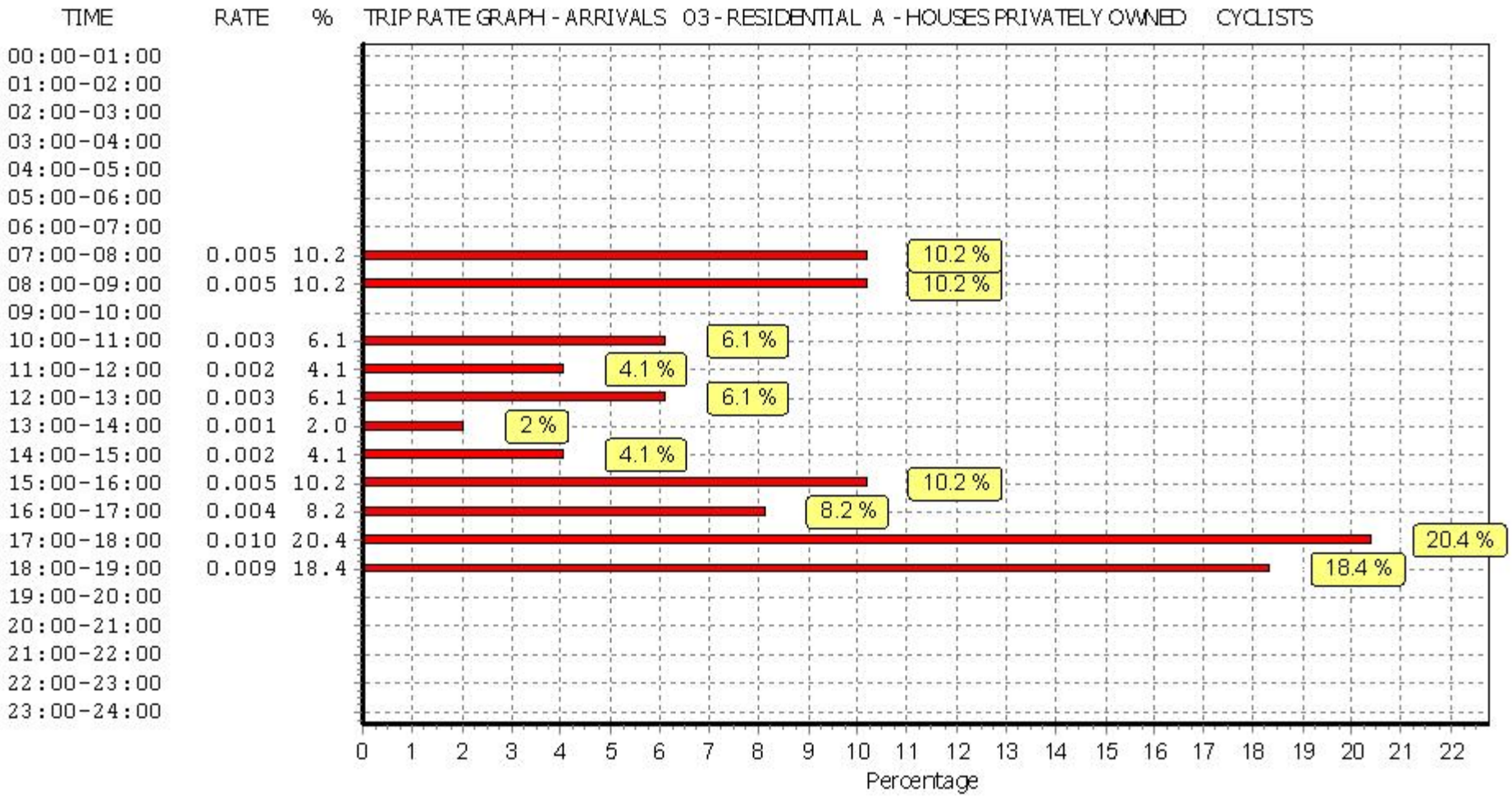
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through 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
CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

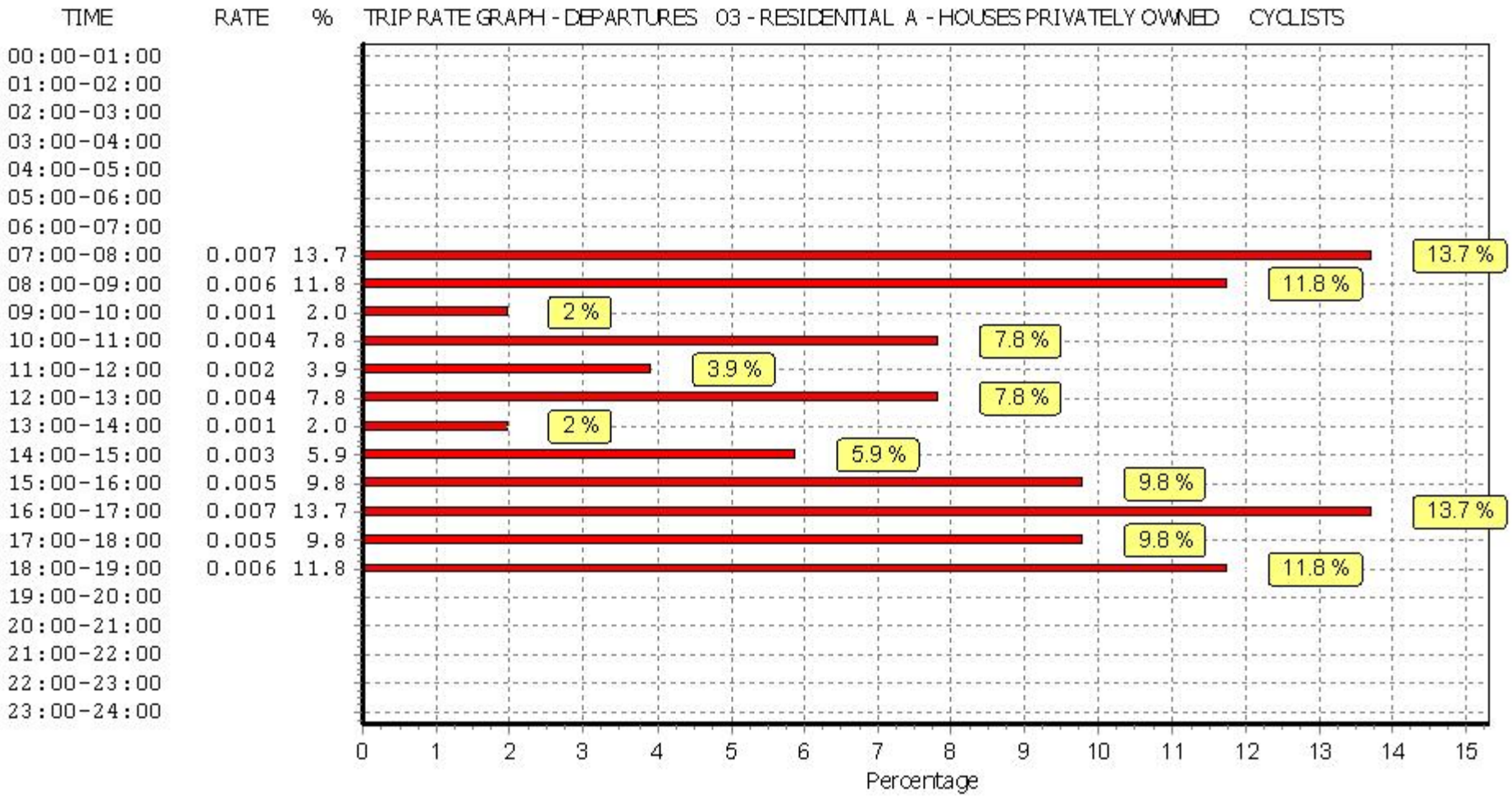
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	168	0.005	12	168	0.007	12	168	0.012
08:00 - 09:00	12	168	0.005	12	168	0.006	12	168	0.011
09:00 - 10:00	12	168	0.000	12	168	0.001	12	168	0.001
10:00 - 11:00	12	168	0.003	12	168	0.004	12	168	0.007
11:00 - 12:00	12	168	0.002	12	168	0.002	12	168	0.004
12:00 - 13:00	12	168	0.003	12	168	0.004	12	168	0.007
13:00 - 14:00	12	168	0.001	12	168	0.001	12	168	0.002
14:00 - 15:00	12	168	0.002	12	168	0.003	12	168	0.005
15:00 - 16:00	12	168	0.005	12	168	0.005	12	168	0.010
16:00 - 17:00	12	168	0.004	12	168	0.007	12	168	0.011
17:00 - 18:00	12	168	0.010	12	168	0.005	12	168	0.015
18:00 - 19:00	12	168	0.009	12	168	0.006	12	168	0.015
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.049			0.051			0.100

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.

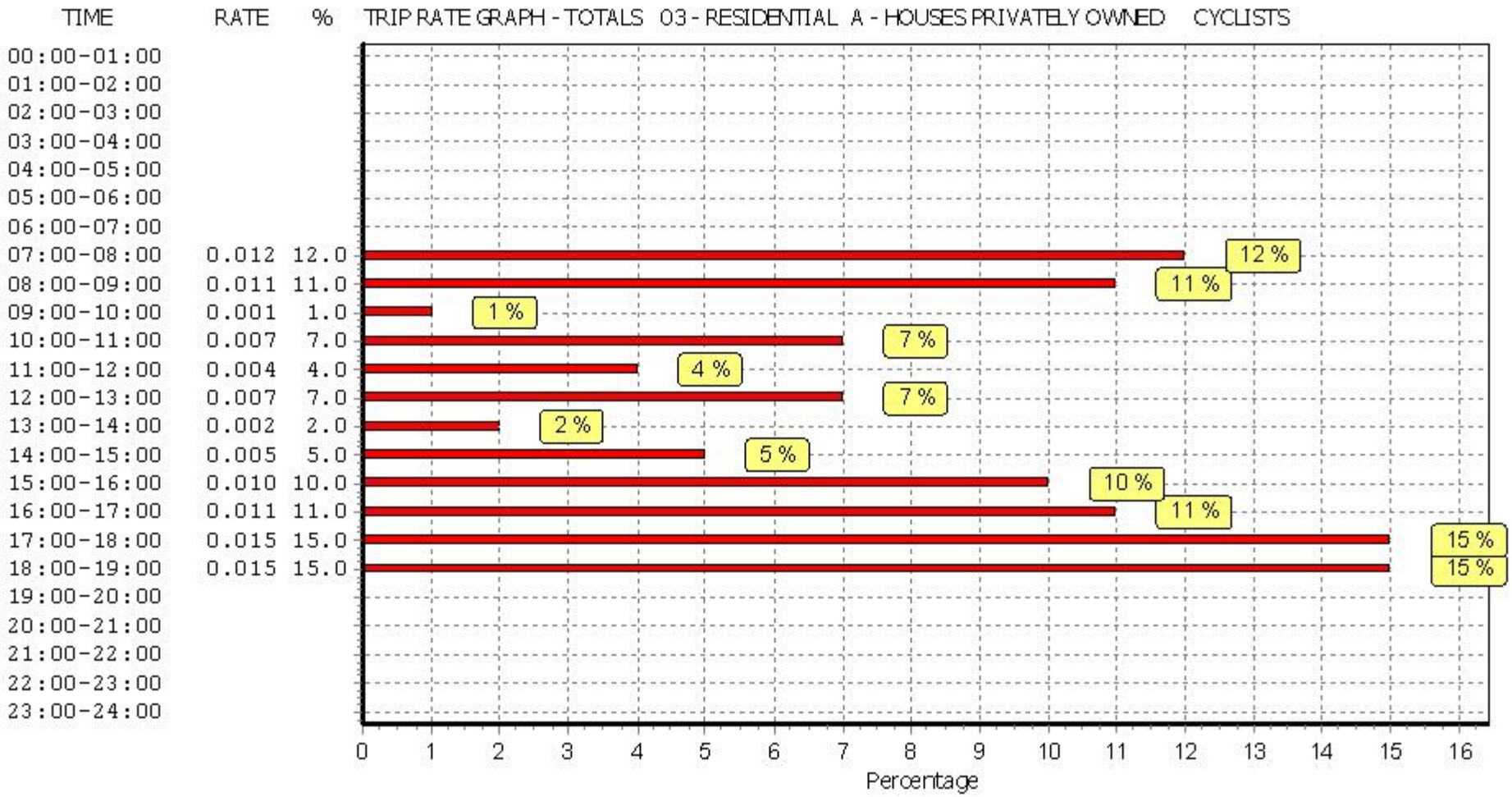
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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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