



Bethania Road Acrefair, Wrexham

Technical Note

August 2023

Project number 2233

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Quality Management

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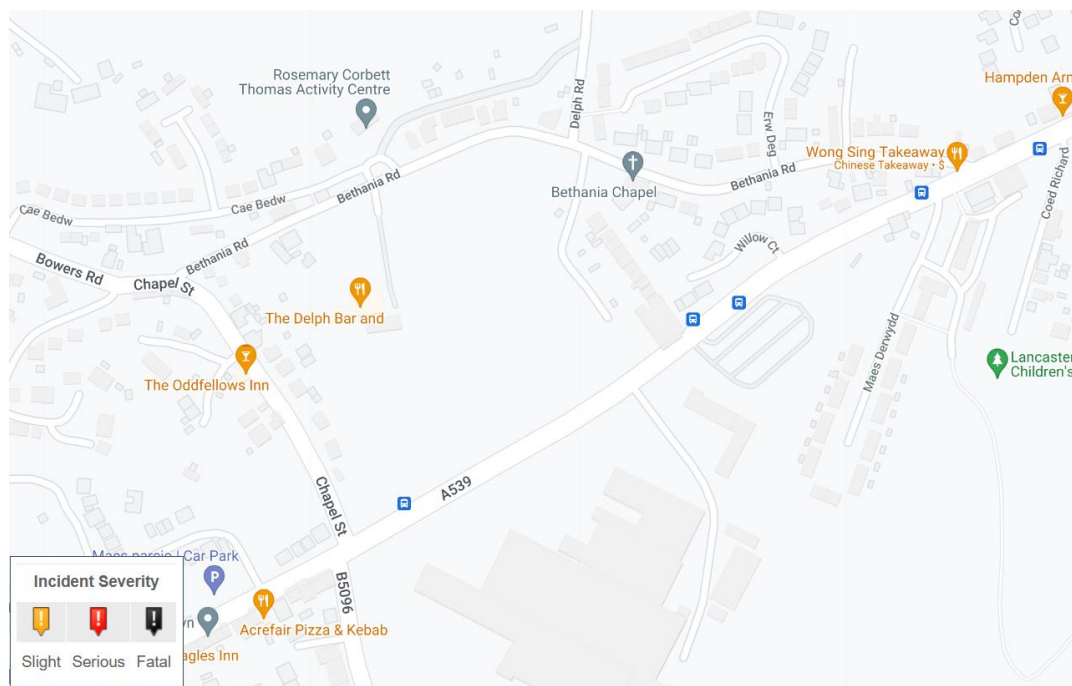
1.0 Introduction

- 1.1.1 Paragon Highways have been appointed to prepare this Technical Note in response to the highway consultation response dated 3rd July 2023 on the proposed residential development on land off Bethania Road, Acrefair, Wrexham.
- 1.1.2 Wrexham Council have concerns with the increased use of the Bethania Road/Llangollen Road junction. This Technical Note (TN) provides further appraisal of this junction demonstrating that the increase in traffic would not be significant.
- 1.1.3 Concerns have also been raised in respect to pedestrian access to the development. Subsequently, further information to the LPA in respect to pedestrian accessibility improvements is provided.
- 1.1.4 This technical note demonstrates that the proposals should be acceptable in highway safety terms.

2.0 Bethania Road/ Llangollen Road

2.1 Road Traffic Accidents

- 2.1.1 The Highways Officer has raised concerns with regards to the Bethania Road/ Llangollen Road being able to accommodate the development traffic from 33 new dwellings.
- 2.1.2 To determine if this junction has a road safety problem it has been necessary to extend the accident study provided as part of the Transport Statement (ref 2002) dated January 2022.
- 2.1.3 The personal injury accident record for the five-year period up to December 2021 within the vicinity of the site including the Bethania Road/ Llangollen Road junction has been obtained from the Crashmap website. The data used is provided by the Dept of Transport which is based upon records provide to them by the local police force. The accident search area is shown on the image below.



Crashmap Search Area

2.1.4 As can be noted from the search area shown on the previous page, there are no collisions at the Bethania Road/ Llangollen Road junction during the study period. Therefore, despite the concerns raised by the highways officer, there is no evidence to suggest that the junction does not operate safely. Subsequently, the safe operation of this junction should not be a cause for concern given the slight increase in traffic as a result of the development proposals.

2.1.5 The Council's previous consultation response dated 4th July 2022 stated: -

It is agreed that there is no apparent existing road safety issue that would be exacerbated by the development.

2.2 Traffic Impact

2.2.1 The previous Transport Statement dated January 2022 provided the anticipated vehicle generations associated with the proposed development of 33 trips. The TRICS output identified that the development would generate around 17 trips during the network peak hour.

2.2.2 The previous consultation response from the Highways Officer (dated 4th July 2022) stated:

The expected traffic generation from the site has been estimated using the TRICS database. This has shown a total of 17 vehicle movements in each of the AM and PM peak periods. It is agreed that this level of traffic will not have a significant impact on the operation of the highway network.

2.2.3 Notwithstanding that some of the local settlements to the north can be reached without using the Bethania Road/ Llangollen Road junction, as a worst-case scenario that all development vehicular traffic was to use this junction (17 movements), then this would only equate to on average a vehicle trip every 3 to 4 minutes during the peak hours. This level of traffic would not be noticeable from the daily fluctuations at the junction and would not cause any significant delays at the junction.

- 2.2.4 The normally accepted trigger for formal junction assessment is 30 additional trips within any hour (former DFT guidance on Transport Assessment). The development would only generate around 17 trips during the peak hour, and therefore does not meet the trigger for traffic surveys or assessments.
- 2.2.5 The TRICS data also provides information on the likely number of goods vehicles visiting the site (LGVs and HGVs), which can be found at Appendix B. As can be seen the development would not generate goods vehicle traffic during the AM or PM peak periods, and between 1 and 2 movements overall during the day. This level of good vehicle traffic is unlikely to provide a significant impact on the local highway network.

3.0 Pedestrian Accessibility Improvements

3.1.1 Existing Situation

3.1.2 Concerns have been raised on the lack of footway at the Bethania Road/ Llangollen Road junction. There is an 11m section of the Bethania Road arm that does not provide any footway provision. There is also a short section of Bethania Road to the east of the site that does not contain footway provision.

3.1.3 There is an existing public right of way (Footpath 71) that connects Llangollen Road with Bethania Road opposite the Delph Road to the east of the site. The footpath is signed from both roads and is unmade.

3.1.4 Proposed Pedestrian Access Improvements

3.1.5 It is acknowledged that given the highway limits and existing carriageway widths, there is little scope to improve the footway provision along Bethania Road.

3.1.6 Therefore, it is proposed to provide a pedestrian link from the development to Llangollen Road utilising the existing public right of way. The pedestrian link would be at least 2m wide and would contain a hardened and sealed surface within the limits of the development site.

3.1.7 As part of the proposed link to the PROW network, it is also proposed to improve the existing Footpath 71. The level of improvements would be agreed with the Council's PROW officer and would include an improved compacted stone surface and low-level lighting if considered to be appropriate by the Council.

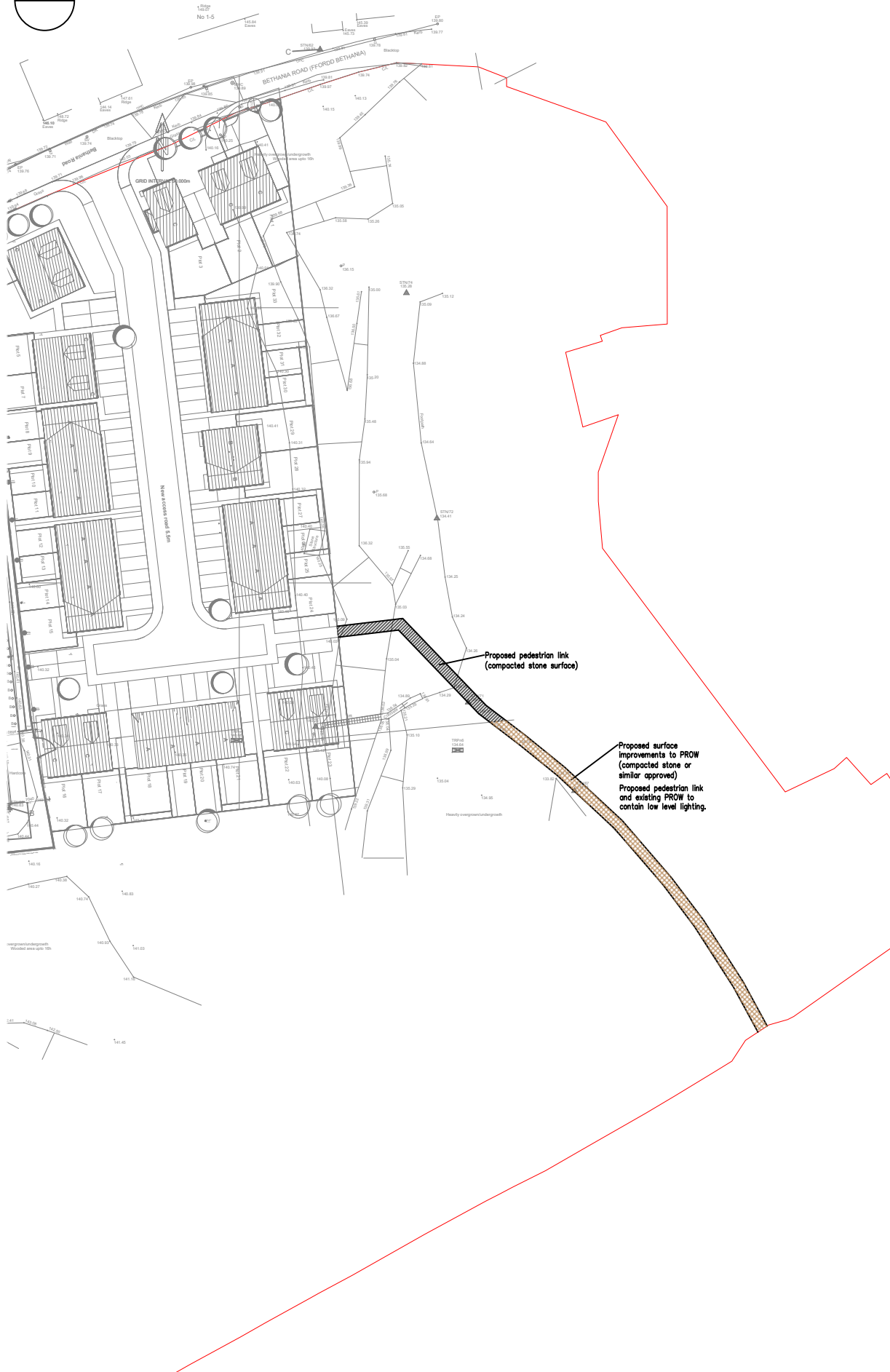
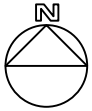
3.1.8 Details of the proposed public footpath improvements and pedestrian link can be found at Appendix A.

4.0 Conclusion

- 4.1.1 This Technical Note presents further information in respect to the suitability of the adjacent public highway including the Bethania Road/ Llangollen Road to accommodate development traffic. This report demonstrates that the traffic impact would not be significant, and that development traffic should not present a cause for concern given the road safety record along the local highway network.
- 4.1.2 The proposals include improvements to the public right of way network and pedestrian link to the site, to improve pedestrian connectivity.
- 4.1.3 It is therefore concluded that the development is considered acceptable, and there are no highway safety or efficiency reasons why planning consent for the existing access to be used as part of the proposed development should not be granted.

Appendix A

Pedestrian Access Improvements



General Notes

- This drawing should not be scaled for setting out purposes.
- This drawing shows the provisional design only and is subject to Local Authority approval.
- This drawing is based upon a topographical / ordnance survey provided by others.

REV	DATE	DESCRIPTION
PROJECT		
BETHANA ROAD ACREFAIR, WREXHAM		
TITLE		
PROW SCHEME		
SCALE		
1:1000 @ A4		
DRAWING		
2233 001		
DATE		
AUG 2023		

Appendix B

TRICS Output

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

Calculation Reference: AUDIT-742101-211028-1049

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	3 days
03	SOUTH WEST	
	DC DORSET	1 days
	DV DEVON	1 days
	SM SOMERSET	1 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	2 days
08	NORTH WEST	
	CH CHESHIRE	3 days
	LC LANCASHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
10	WALES	
	PS POWYS	1 days
11	SCOTLAND	
	FA FALKIRK	1 days
	HI HIGHLAND	1 days
14	LEINSTER	
	CC CARLOW	1 days

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

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 21 to 50 (units:)
 Range Selected by User: 20 to 50 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 05/11/19

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

Selected survey days:

Monday	5 days
Tuesday	3 days
Wednesday	7 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	23 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	11
Edge of Town	12

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	23
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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	23 days
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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 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	8 days
10,001 to 15,000	3 days
15,001 to 20,000	4 days
20,001 to 25,000	3 days
25,001 to 50,000	3 days

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

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	2 days
50,001 to 75,000	4 days
75,001 to 100,000	4 days
125,001 to 250,000	7 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	6 days
1.1 to 1.5	17 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	6 days
No	17 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	23 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CA-03-A-05 EASTFIELD ROAD PETERBOROUGH	DETACHED HOUSES		CAMBRIDGESHIRE
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	28		
	Survey date: MONDAY	17/10/16	Survey Type: MANUAL	
2	CC-03-A-01 R417 ANTHY ROAD CARLOW	DETACHED HOUSES		CARLOW
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	23		
	Survey date: WEDNESDAY	25/05/16	Survey Type: MANUAL	
3	CH-03-A-09 GREYSTOKE ROAD MACCLESFIELD HURDSFIELD	TERRACED HOUSES		CHESHIRE
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	24		
	Survey date: MONDAY	24/11/14	Survey Type: MANUAL	
4	CH-03-A-10 MEADOW DRIVE NORTHWICH BARNTON	SEMI-DETACHED & TERRACED		CHESHIRE
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	40		
	Survey date: TUESDAY	04/06/19	Survey Type: MANUAL	
5	CH-03-A-11 LONDON ROAD NORTHWICH LEFTWICH	TOWN HOUSES		CHESHIRE
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	24		
	Survey date: THURSDAY	06/06/19	Survey Type: MANUAL	
6	DC-03-A-08 HURSTDENE ROAD BOURNEMOUTH CASTLE LANE WEST	BUNGALOWS		DORSET
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	28		
	Survey date: MONDAY	24/03/14	Survey Type: MANUAL	
7	DH-03-A-01 GREENFIELDS ROAD BISHOP AUCKLAND	SEMI DETACHED		DURHAM
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	50		
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL	
8	DV-03-A-01 BRONSHILL ROAD TORQUAY	TERRACED HOUSES		DEVON
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	37		
	Survey date: WEDNESDAY	30/09/15	Survey Type: MANUAL	

LIST OF SITES relevant to selection parameters (Cont.)

9	FA-03-A-01 MANDELA AVENUE FALKIRK	SEMI-DETACHED / TERRACED	FALKIRK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 37 Survey date: THURSDAY 30/05/13		Survey Type: MANUAL
10	HC-03-A-17 CANADA WAY LIPHOOK	HOUSES & FLATS	HAMPSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 36 Survey date: THURSDAY 12/11/15		Survey Type: MANUAL
11	HC-03-A-21 PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS	TERRACED & SEMI-DETACHED	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 39 Survey date: TUESDAY 13/11/18		Survey Type: MANUAL
12	HC-03-A-22 BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE	MIXED HOUSES	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: WEDNESDAY 31/10/18		Survey Type: MANUAL
13	HI-03-A-14 KING BRUDE ROAD INVERNESS SCORGUIE	SEMI-DETACHED & TERRACED	HIGHLAND
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 40 Survey date: WEDNESDAY 23/03/16		Survey Type: MANUAL
14	LC-03-A-31 GREENSIDE PRESTON COTTAM	DETACHED HOUSES	LANCASHIRE
	Edge of Town Residential Zone Total No of Dwellings: 32 Survey date: FRIDAY 17/11/17		Survey Type: MANUAL
15	NF-03-A-05 HEATH DRIVE HOLT	MIXED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: THURSDAY 19/09/19		Survey Type: MANUAL
16	NY-03-A-08 NICHOLAS STREET YORK	TERRACED HOUSES	NORTH YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 21 Survey date: MONDAY 16/09/13		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17	NY-03-A-11 HORSEFAIR BOROUGHBRIDGE	PRIVATE HOUSING		NORTH YORKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	23		
	Survey date: WEDNESDAY	18/09/13	Survey Type: MANUAL	
18	PS-03-A-02 GUNROG ROAD WELSHPOOL	DETACHED / SEMI-DETACHED		POWYS
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	28		
	Survey date: MONDAY	11/05/15	Survey Type: MANUAL	
19	SM-03-A-01 WEMBDON ROAD BRIDGWATER NORTHFIELD	DETACHED & SEMI		SOMERSET
	Edge of Town Residential Zone Total No of Dwellings:	33		
	Survey date: THURSDAY	24/09/15	Survey Type: MANUAL	
20	ST-03-A-08 SILKMORE CRESCENT STAFFORD MEADOWCROFT PARK	DETACHED HOUSES		STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	26		
	Survey date: WEDNESDAY	22/11/17	Survey Type: MANUAL	
21	WK-03-A-03 BRESE AVENUE WARWICK GUYS CLIFFE	DETACHED HOUSES		WARWICKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	23		
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL	
22	WK-03-A-04 DALEHOUSE LANE KENILWORTH	DETACHED HOUSES		WARWICKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	49		
	Survey date: FRIDAY	27/09/19	Survey Type: MANUAL	
23	WL-03-A-02 HEADLANDS GROVE SWINDON	SEMI DETACHED		WILTSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	27		
	Survey date: THURSDAY	22/09/16	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.

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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

TOTAL 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	23	33	0.071	23	33	0.267	23	33	0.338
08:00 - 09:00	23	33	0.142	23	33	0.357	23	33	0.499
09:00 - 10:00	23	33	0.160	23	33	0.199	23	33	0.359
10:00 - 11:00	23	33	0.148	23	33	0.171	23	33	0.319
11:00 - 12:00	23	33	0.162	23	33	0.180	23	33	0.342
12:00 - 13:00	23	33	0.171	23	33	0.180	23	33	0.351
13:00 - 14:00	23	33	0.171	23	33	0.172	23	33	0.343
14:00 - 15:00	23	33	0.170	23	33	0.213	23	33	0.383
15:00 - 16:00	23	33	0.283	23	33	0.207	23	33	0.490
16:00 - 17:00	23	33	0.290	23	33	0.158	23	33	0.448
17:00 - 18:00	23	33	0.321	23	33	0.178	23	33	0.499
18:00 - 19:00	23	33	0.235	23	33	0.131	23	33	0.366
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.324			2.413			4.737

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: 21 - 50 (units:)
 Survey date range: 01/01/13 - 05/11/19
 Number of weekdays (Monday-Friday): 23
 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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

TAXIS

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	23	33	0.000	23	33	0.000	23	33	0.000
08:00 - 09:00	23	33	0.003	23	33	0.003	23	33	0.006
09:00 - 10:00	23	33	0.007	23	33	0.005	23	33	0.012
10:00 - 11:00	23	33	0.003	23	33	0.004	23	33	0.007
11:00 - 12:00	23	33	0.000	23	33	0.000	23	33	0.000
12:00 - 13:00	23	33	0.003	23	33	0.001	23	33	0.004
13:00 - 14:00	23	33	0.003	23	33	0.004	23	33	0.007
14:00 - 15:00	23	33	0.000	23	33	0.000	23	33	0.000
15:00 - 16:00	23	33	0.001	23	33	0.001	23	33	0.002
16:00 - 17:00	23	33	0.003	23	33	0.003	23	33	0.006
17:00 - 18:00	23	33	0.001	23	33	0.001	23	33	0.002
18:00 - 19:00	23	33	0.003	23	33	0.004	23	33	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.027			0.026			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.

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Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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

OGVS

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	23	33	0.001	23	33	0.001	23	33	0.002
08:00 - 09:00	23	33	0.007	23	33	0.005	23	33	0.012
09:00 - 10:00	23	33	0.005	23	33	0.005	23	33	0.010
10:00 - 11:00	23	33	0.003	23	33	0.003	23	33	0.006
11:00 - 12:00	23	33	0.003	23	33	0.004	23	33	0.007
12:00 - 13:00	23	33	0.001	23	33	0.003	23	33	0.004
13:00 - 14:00	23	33	0.003	23	33	0.003	23	33	0.006
14:00 - 15:00	23	33	0.000	23	33	0.000	23	33	0.000
15:00 - 16:00	23	33	0.000	23	33	0.000	23	33	0.000
16:00 - 17:00	23	33	0.000	23	33	0.000	23	33	0.000
17:00 - 18:00	23	33	0.001	23	33	0.001	23	33	0.002
18:00 - 19:00	23	33	0.001	23	33	0.001	23	33	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.025			0.026			0.051

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.

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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

PSVS

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	23	33	0.001	23	33	0.001	23	33	0.002
08:00 - 09:00	23	33	0.004	23	33	0.004	23	33	0.008
09:00 - 10:00	23	33	0.000	23	33	0.000	23	33	0.000
10:00 - 11:00	23	33	0.000	23	33	0.000	23	33	0.000
11:00 - 12:00	23	33	0.000	23	33	0.000	23	33	0.000
12:00 - 13:00	23	33	0.000	23	33	0.000	23	33	0.000
13:00 - 14:00	23	33	0.000	23	33	0.000	23	33	0.000
14:00 - 15:00	23	33	0.001	23	33	0.001	23	33	0.002
15:00 - 16:00	23	33	0.004	23	33	0.004	23	33	0.008
16:00 - 17:00	23	33	0.000	23	33	0.000	23	33	0.000
17:00 - 18:00	23	33	0.000	23	33	0.000	23	33	0.000
18:00 - 19:00	23	33	0.001	23	33	0.001	23	33	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.011			0.011			0.022

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.

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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

CYCLISTS

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	23	33	0.011	23	33	0.020	23	33	0.031
08:00 - 09:00	23	33	0.003	23	33	0.017	23	33	0.020
09:00 - 10:00	23	33	0.007	23	33	0.009	23	33	0.016
10:00 - 11:00	23	33	0.004	23	33	0.005	23	33	0.009
11:00 - 12:00	23	33	0.003	23	33	0.003	23	33	0.006
12:00 - 13:00	23	33	0.008	23	33	0.011	23	33	0.019
13:00 - 14:00	23	33	0.009	23	33	0.003	23	33	0.012
14:00 - 15:00	23	33	0.001	23	33	0.007	23	33	0.008
15:00 - 16:00	23	33	0.017	23	33	0.001	23	33	0.018
16:00 - 17:00	23	33	0.013	23	33	0.004	23	33	0.017
17:00 - 18:00	23	33	0.015	23	33	0.012	23	33	0.027
18:00 - 19:00	23	33	0.012	23	33	0.004	23	33	0.016
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.103			0.096			0.199

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.

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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

CARS

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	23	33	0.052	23	33	0.241	23	33	0.293
08:00 - 09:00	23	33	0.102	23	33	0.321	23	33	0.423
09:00 - 10:00	23	33	0.123	23	33	0.166	23	33	0.289
10:00 - 11:00	23	33	0.116	23	33	0.136	23	33	0.252
11:00 - 12:00	23	33	0.132	23	33	0.150	23	33	0.282
12:00 - 13:00	23	33	0.139	23	33	0.142	23	33	0.281
13:00 - 14:00	23	33	0.130	23	33	0.140	23	33	0.270
14:00 - 15:00	23	33	0.147	23	33	0.182	23	33	0.329
15:00 - 16:00	23	33	0.247	23	33	0.172	23	33	0.419
16:00 - 17:00	23	33	0.269	23	33	0.127	23	33	0.396
17:00 - 18:00	23	33	0.289	23	33	0.158	23	33	0.447
18:00 - 19:00	23	33	0.209	23	33	0.119	23	33	0.328
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.955			2.054			4.009

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

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.

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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

LGVS

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	23	33	0.016	23	33	0.024	23	33	0.040
08:00 - 09:00	23	33	0.027	23	33	0.024	23	33	0.051
09:00 - 10:00	23	33	0.025	23	33	0.023	23	33	0.048
10:00 - 11:00	23	33	0.027	23	33	0.028	23	33	0.055
11:00 - 12:00	23	33	0.025	23	33	0.027	23	33	0.052
12:00 - 13:00	23	33	0.028	23	33	0.033	23	33	0.061
13:00 - 14:00	23	33	0.036	23	33	0.025	23	33	0.061
14:00 - 15:00	23	33	0.021	23	33	0.028	23	33	0.049
15:00 - 16:00	23	33	0.031	23	33	0.029	23	33	0.060
16:00 - 17:00	23	33	0.017	23	33	0.028	23	33	0.045
17:00 - 18:00	23	33	0.028	23	33	0.017	23	33	0.045
18:00 - 19:00	23	33	0.021	23	33	0.005	23	33	0.026
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.302			0.291			0.593

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.

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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

MOTOR CYCLES

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	23	33	0.000	23	33	0.000	23	33	0.000
08:00 - 09:00	23	33	0.000	23	33	0.000	23	33	0.000
09:00 - 10:00	23	33	0.000	23	33	0.000	23	33	0.000
10:00 - 11:00	23	33	0.000	23	33	0.000	23	33	0.000
11:00 - 12:00	23	33	0.001	23	33	0.000	23	33	0.001
12:00 - 13:00	23	33	0.000	23	33	0.001	23	33	0.001
13:00 - 14:00	23	33	0.000	23	33	0.000	23	33	0.000
14:00 - 15:00	23	33	0.000	23	33	0.001	23	33	0.001
15:00 - 16:00	23	33	0.000	23	33	0.000	23	33	0.000
16:00 - 17:00	23	33	0.001	23	33	0.000	23	33	0.001
17:00 - 18:00	23	33	0.001	23	33	0.000	23	33	0.001
18:00 - 19:00	23	33	0.000	23	33	0.000	23	33	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.003			0.002			0.005

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

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