

Appendix 53

HTp/1107/TN/10 – Committed Developments

Highgate*Transportation*

Land at Peel Hall, Warrington
Technical Note on Committed Developments
(HTp/1107/TN/10)

April 2016

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1.0 Introduction

- 1.1 This Technical Note has been prepared by Highgate Transportation Limited on behalf of Satnam Millennium Limited to identify the local committed developments within Warrington, as set out and agreed by Warrington Borough Council highway officers, that are to be accounted for within the traffic impact assessment work associated with the Peel Hall site.
- 1.2 These committed developments are as follows:
 - i. Land at Benson Road, Birchwood (ref: 2015/26220).
 - ii. Birchwood Shopping Centre (ref: 2015/25880).
 - iii. Birchwood Park (ref: 2015/26044, 2014/23358 and 2008/12744).
 - iv. Calver Park (ref: 2015/26685 and 2013/22533).
- 1.3 The corresponding vehicular trip numbers over the peak periods of 0700 to 0930 and 1600 to 1830, and subsequent trip loading locations for each site identified are set out in **Section 3.0** of this report for ease of inserting into the VISSIM model.
- 1.4 It should be noted that the application for the B&Q extension at Winwick (ref: 2015/26628) for a click-and-collect area and storeroom and relocation of the garden centre area, which was granted on 12/02/16, has not been included within the identified committed developments as there will be no net change to the store's overall GFA and it is therefore considered that there would be very little, if any, impact on the local highway network during peak hours as a result of this development.
- 1.5 It was agreed that due to the location of the Omega development from the Peel Hall site it would not need to be accounted for separately within the modelling, over and above the local growth rates that are to be applied (HTp Technical Note TN/07).
- 1.6 It is concluded that the identified committed developments, associated trip rates and subsequent trip loading provided in this Technical Note (HTp/1107/TN/10) are appropriate.

2.0 Committed Developments

- 2.1 The committed developments, planning application reference numbers, planning history and descriptions are provided in **Table 2.1** below.
- 2.2 The location of each site in relation to the proposed Peel Hall development is illustrated on **Figure 1**.

Table 2.1 – Committed Developments for Consideration

Development Planning Reference and Decision Date	Proposal Description	Location Description
Land at Benson Road, Birchwood (2015/26220) <i>Granted 01/12/15</i>	Proposed outline application with all matters reserved to create a new build two storey office block of up to 2,400 sqm, with supplemental parking and a link bridge to existing building.	Land at Benson Road, Birchwood, Warrington, WA3 7PQ
Birchwood Shopping Centre (2015/25880) <i>Granted 27/10/15</i>	Application for Outline Planning Permission with all matters reserved apart from access and layout, for the demolition of existing buildings and construction of proposed mixed use extensions to Birchwood Shopping Centre (Use Classes A1/A3/D1) with associated access, servicing, car parking, signage and associated works. Demolition of 2,565sqm B1, replaced with 4,907sqm A1, A3, A5, D1 (a variance of 2,342sqm) and 116 additional car parking spaces.	Birchwood Shopping Centre, Benson Road, Birchwood, Warrington, WA3 7PQ.
Birchwood Park (2015/26044) <i>Granted 29/10/15</i>	Outline planning application: Demolition of some existing buildings and erection of new buildings for a combination of offices (B1); light and general industrial (B1/B2); warehousing development (B8) and ancillary retail/financial and professional services/non-residential institutions/assembly and leisure (A1/A2/D1/D2) floor space. B1 91,235sqm, B2/B8 40,215sqm and A1/A2/D1/D2 1,000sqm proposed. Change from other applications: B1 -8,036sqm, B2/B8 +21,365sqm, A1/A2/D1/D2 -4,000sqm. Therefore an overall increase in floor area of 9,329sqm. Current total net floor space B1 48,413 sqm, B2/B8 7,365sqm.	Eastern edge of Birchwood Park plots 107, 300, 501-502, 611-612, 701-702 and Quadrant, Warrington, WA3 6AE.

(2014/23358) <i>Granted 12/08/14</i>	Full Planning (Major) – Proposed construction of seven units for general industry and/or warehouse/distribution (Use Classes B2 and/or B8). 12,225sqm proposed. B1 91,375sqm, B2/B8 6,625sqm, A1/A2/D1/D2 5,000sqm	The Quadrant (<i>plot 711-717</i>), Cavendish Avenue, Birchwood Park, Warrington.
(2012/19696) <i>Granted 24/07/12</i>	Application to extend time limit for implementation of permission 2006/07641 (offices, industrial and warehousing development)	Birchwood Business Park, Warrington, WA3 6BU.
(2008/12744) <i>Granted 04/07/08</i>	Outline application for the erection of an office building (use class B1), associated access and car parking (matters of appearance, landscaping, layout, and scale reserved). Shall not exceed 7,896sqm. (Previous floor space granted under permission A00/41159 of 1,428sqm shall not be implemented).	Site 1 (<i>plot 107</i>), Dalton Avenue, Birchwood Park, Warrington.
(2003) A01/43317 <i>Granted 05/09/03</i>	Outline application for offices, light and general. B1 84,500sqm, B2/B8 13,500sqm, A1/A2/D1/D2 5,000sqm	Birchwood Park, Birchwood, Warrington, WA3 6BU.
Calver Park (2015/26685) <i>Granted 03/02/16</i>	Variation of Condition (Major) – Proposed variation of Condition 14 (Increase the restriction on car sales floor space) on previously approved application 2013/22533. Increase in motor sales from 1,933sqm (2 car showrooms) to 4,200sqm (1 large car showroom). Therefore a reduction in B2/B8 floor space of 2,267sqm, down to 13,974sqm from 16,214sqm. Overall GFA remains at 18,147sqm.	Calver Park, Calver Park Road, Warrington, WA2 8TL.
(2013/22533) <i>Granted 07/08/14</i>	Outline Permission – outline application with all matters reserved excluding access for vehicle and ancillary uses (sui generis), light industry (use class B1(c)), general industrial (B2), storage/distribution (B8), including ancillary office and trade counter (up to 20% floor space for goods assembled or manufactured on the premises) and associated access, parking, fencing and landscaping. (The planning application is accompanied by an environmental statement). Motor vehicle sales of up to 1,933sqm and light industry (B1c), general industrial (B2) and storage and distribution (B8) of up to 18,147sqm (including ancillary office) overall.	Calver Park, Calver Park Road, Warrington.

- 2.3 In summary, the development proposals at Benson Road and Birchwood Park result in the provision of additional GFA and subsequent traffic generation above current operational levels. The trip rates and loading associated with these new developments are set out in **Section 3.0**, based on the 2015 Transport Assessments that accompanied the respective planning applications.
- 2.4 At Birchwood Shopping Centre the proposed changes to the development profile to replace 2,565sqm GFA of B1 land uses with 4,907sqm GFA A1, A3, A5 and D1 land uses results in lower forecast AM peak hour trips but higher PM trip rates during the weekday. This is supported by an associated increase in car parking provision. The net vehicle trips and loading for these changes are also set out in the following **Section 3.0**, based on the 2015 Transport Assessment.
- 2.5 At Calver Park, the proposed floor area also remains the same with the increase in motor sales GFA offset by a reduction in proposed B2/B8 GFA. The 2015 TA set out that the proposed increase in motor sales floor area would not create an increase in the level of weekday peak hour vehicle trips above the agreed motor sales floor area, which would have been for two car showrooms at a GFA of circa 967sqm each, due to the nature of both the more recent (2015) and previously proposed (2013) permissions. The trip rates and loading associated with the Calver Park site development will therefore be set out with reference to both the 2015 and 2013 Transport Assessment in **Section 3.0**, as it is understood that no element of this application has yet to be built/become operational.

3.0 Trip Rates and Loading

- 3.1 The Transport Statements/Transport Assessments that supported each of the planning applications for the committed developments highlighted for inclusion within the Peel Hall modelling have been reviewed, alongside the accompanying highway officer's consultation response and the resulting Decision Notice for each application.
- 3.2 The number of weekday peak hour vehicular trips associated with each of the committed developments is discussed in turn below, with the number of arrival and departure trips over the peak periods of 0700 to 0930 and 1600 to 1830 tabulated for ease of reference.
- 3.3 The trip rates are set out in the accompanying **Appendices 1 to 4** at the end of this report.

Land at Benson Road, Birchwood (2015/26220)

- 3.4 The number of peak period vehicular trips expected to arise from the proposed 2,400sqm GFA office extension are summarised in **Table 3.1** below and the TRICS trip rate report extract from the Optima Transport Statement (dated September 2015) is contained in **Appendix 1**.

Table 3.1 – Land at Benson Road Peak Period Vehicle Trips Summary

Hour	TRIPS	
	Arrival	Departure
0700-0800	15	2
0800-0900	37	6
0900-0930	12	3
1600-1700	6	23
1700-1800	4	29
1800-1830	1	6

- 3.5 The Optima Transport Statement set out that the number of trips arising from the proposed office extension, "Are not considered to be material and their impact onto access points onto the local road network will be further diluted by the fact that (there) are numerous access points onto the local highway network. It is therefore not considered necessary or appropriate to undertake highway capacity assessments. The approach has been agreed with Warrington Highways as set out in their consultation response in which they have confirmed that a Transport Assessment is not necessary but that a Transport Statement is sufficient to support the application" (paragraph 5.1.6). No traffic surveys were submitted as part of this application.
- 3.6 The vehicle trips for this committed development at Benson Road will need to be loaded onto the highway network by the AECOM gravity model as there is not enough information in the supporting Transport Statement to distribute the traffic manually. The following points should be noted for vehicles leaving the committed development site (and reversed for arrival trips):

- i. Departure trips originate from the Benson Road junction with Dewhurst Road opposite the railway station.
- ii. Vehicle trips with destinations to the west and south will all go through the Birchwood Interchange and take the A574 west along Birchwood Way.
- iii. Vehicle trips with destinations to the north may go through the Birchwood Interchange and take the A574 north along Birchwood Park Avenue into Warrington Road, or take the A574 east to the M62 junction 11. However, the latter movements may be along Ordnance Way running parallel to Birchwood Way to avoid the Birchwood Interchange.
- iv. Vehicle trips with destinations to the east may go through the Birchwood Interchange and take the A574 east along Birchwood Way, but are likely to travel along Ordnance Way as (iii) above, to avoid the Birchwood Interchange.
- v. All trips travelling through Birchwood Interchange will arrive from the south via Oakwood Gate.

Birchwood Shopping Centre (2015/25880)

- 3.7 The number of accumulated peak period vehicular trips expected to arise from the Birchwood Shopping Centre proposals to demolish 2,565sqm of B1 office development and replace with 4,907sqm of A1, A3 A5 and D1 land uses and additional parking are summarised in **Table 3.2** below. The breakdown of the floor areas used in the calculations are as follows:
- i. A1 non-food 1,958 GFA.
 - ii. A1 Food 899 GFA.
 - iii. A3 and A5 1,681 GFA.
 - iv. D1 369 GFA.
 - v. B1 -2,565 GFA.
- 3.8 The TRICS trip rate report extract from the TPS Transport Assessment (dated May 2015) is contained in **Appendix 2**.

Table 3.2 – Birchwood Shopping Centre Peak Period Vehicle Trips Summary

Hour	TRIPS	
	Arrival	Departure
0700-0800	-1	6
0800-0900	-17	17
0900-0930	33	29
1600-1700	104	82
1700-1800	124	73
1800-1830	73	75

- 3.9 The TPS Assessments sets out that the trip rates used are robust as, "Whilst it is proposed to increase the floor area of restaurant facilities, these facilities are principally ancillary to the shopping centre and it is not envisaged that these would generate trips in their own right. Consequently, the trip generation comparison, and resulting traffic generation, is a robust assessment. The robustness of the assessment is enhanced further given the propensity for linked trips between different retail opportunities on a large site such as Birchwood Shopping Centre; this is not taken into consideration at this stage" (paragraph 5.3).
- 3.10 The vehicle trips for this committed development at Birchwood Shopping Centre will need to be loaded onto the highway network by the AECOM gravity model, noting the points set out in **paragraph 3.6**.

Birchwood Park (2015/26044)

- 3.11 As set out in **Table 2.1** earlier in this report and the Vectos Transport Assessment (dated June 2015), Birchwood Park is an existing thriving business park. A proportion of the committed development land within the planning application consists of existing commercial and industrial buildings that are in use, vacant land that has been previously cleared of structures, and some planting and landscaped areas.
- 3.12 The number of peak period vehicular trips expected to arise from the Birchwood Park proposals of 91,235 square metres of B1 office development and 40,215 square metres of B2/B8 warehouse development (for the land parcels set out in **Table 2.1**) have been discounted based on the vehicle trip generation of the current operational land uses on site of 48,413 square metres GFA B1 and 7,365 square metres GFA B2/B8 i.e. what we can expect is already on the local highway network.
- 3.13 Therefore the resultant vehicular trips arising from the additional 42,822 square metres GFA B1 and 32,850 square metres GFA B2/B8 proposed are summarised in **Table 3.3** below and the TRICS trip rate report from the Vectos Transport Assessment is contained in **Appendix 3** for reference.

Table 3.3 – Birchwood Park Peak Period Vehicle Trips Summary

Hour	TRIPS	
	Arrival	Departure
0700-0800	330	37
0800-0900	745	89
0900-0930	283	56
1600-1700	97	480
1700-1800	79	648
1800-1830	30	267

- 3.14 It can be noted that the A1/A2/D1/D2 land uses have been considered as ancillary to the proposed development based on previously agreed traffic impact analysis by Warrington Borough Council (WBC). These trip rates have therefore not been taken into consideration.
- 3.15 In terms of accounting for HGV trips within the VISSIM model, the WBC highways consultation response to this application sets out that a maximum of 16 OGV trip movements may occur as a result of this development within any one hour during the day. It should be noted that the reference OGV in TRICS refers to a mix of HGV and other large commercial vehicles. As the majority of HGV movements are coordinated outside of peak hours by the Birchwood Park operators, it is therefore not considered that additional trip breakdowns will be needed for input of data into the VISSIM model in any event.
- 3.16 Given the spread in location of the units across the Birchwood Park set out in this approved planning application, and the route choice options available, it was concluded in the TA and agreed by WBC that the impact on any one junction would be minimal.
- 3.17 The vehicle trips for this committed development at Birchwood Shopping Centre will need to be loaded onto the local highway network appropriately and distributed by the AECOM gravity model.

Calver Park (2015/22533)

- 3.18 The 2013 application was for an overall site GFA of 18,147 square metres and included two car show rooms at circa 967 square metres GFA each. The variation of condition application was for a larger car showroom area totalling 4,200sqm GFA to be operated by a single known user, with the remaining proposed floor space GFA of 13,947 split between B2 and B8 land uses; a total reduction of 2,267 square metres GFA in these land uses from the original application.

3.19 The number of peak period vehicular trips expected to arise from the new car showroom are summarised in **Table 3.4** below, based on the TRICS report from the iprt Transport Planning Group Transport Statement (dated September 2015) for larger car showrooms, which is contained in **Appendix 4**.

Table 3.4 – Calver Park Car Showroom Peak Period Vehicle Trips Summary (4,200sqm)

Hour	TRIPS	
	Arrival	Departure
0700-0800	10	4
0800-0900	30	16
0900-0930	15	9
1600-1700	13	22
1700-1800	15	20
1800-1830	2	9

3.20 **Tables 3.5** and **3.6** below set out the reduction in B2 and B8 respectively to enable the total trip generation of the site to be calculated. The TRICS reports are also contained in **Appendix 4**.

Table 3.5 – Calver Park B2 Peak Period Vehicle Trips Summary (6,973.5sqm)

Hour	TRIPS	
	Arrival	Departure
0700-0800	33	4
0800-0900	38	10
0900-0930	10	6
1600-1700	12	39
1700-1800	4	40
1800-1830	0	5

Table 3.6 – Calver Park B8 Peak Period Vehicle Trips Summary (6,973.5sqm)

Hour	TRIPS	
	Arrival	Departure
0700-0800	15	9
0800-0900	25	52
0900-0930	8	10
1600-1700	12	18
1700-1800	10	18
1800-1830	1	8

3.21 **Table 3.7** sets out the total expected vehicular trip numbers resulting from the proposed land uses on the Calver Park site as a result of the variation of condition application, taken from **Table 3.4** to **3.6**.

Table 3.7 – Calver Park Peak Period Vehicle Trips Summary (All Trips)

Hour	TRIPS	
	Arrival	Departure
0700-0800	58	17
0800-0900	93	78
0900-0930	33	25
1600-1700	37	79
1700-1800	29	78
1800-1830	3	22

3.22 The vehicle trips for this committed development will need to be loaded onto the local highway network and distributed by the AECOM gravity model. However, it can be noted from the iprt Transport Statement (paragraph 3.10) that in the AM peak, "...at most 60% of the development trips travel towards Cromwell Avenue from the site access on Calver Park Road, with the remaining 40% travelling north" to Mill Lane and over the M62, with more of a 50:50 split in the PM peak hour.

4.0 Summary and Conclusion

4.1 This Technical Note has been prepared by Highgate Transportation and summarises the committed developments to be included within the modelling for the Peel Hall site. The location of these committed developments in respect of the Peel Hall site is illustrated on **Figure 1**.

4.2 The committed development sites agreed with Warrington Borough Council highway officers for inclusion in the modelling are as follows:

- i. Land at Benson Road Birchwood (ref: 2015/26220).

Proposed outline application with all matters reserved to create a new build two storey office block of up to 2,400 sqm, with supplemental parking and a link bridge to existing building.

- ii. Birchwood Shopping Centre (ref: 2015/25880).

Application for Outline Planning Permission with all matters reserved apart from access and layout, for the demolition of existing buildings and construction of proposed mixed use extensions to Birchwood Shopping Centre (Use Classes A1/A3/D1) with associated access, servicing, car parking, signage and associated works.

Demolition of 2,565sqm B1, replaced with 2,342sqm A1, A3, A5, D1 and 116 additional car parking spaces.

- iii. Birchwood Park (ref: 2015/26044, 2014/23358 and 2008/12744).

Outline planning application: Demolition of some existing buildings and erection of new buildings for a combination of offices (B1); light and general industrial (B1/B2); warehousing development (B8) and ancillary retail/financial and professional services/non-residential institutions/assembly and leisure (A1/A2/D1/D2) floor space.

B1 91,235sqm, B2/B8 40,215sqm and A1/A2/D1/D2 1,000sqm proposed. Change from other applications: B1 -8,036sqm, B2/B8 21,365sqm, A1/A2/D1/D2 - 4,000sqm; an increase in floor area of 9,329sqm (of B2/B8).

Current total net floor space B1 48,413 sqm, B2/B8 7,365sqm.

- iv. Calver Park (ref: 2015/26685 and 2013/22533).

Variation of Condition (Major) – Proposed variation of Condition 14 (Increase the restriction on care sales floor space) on previously approved application 2013/22533.

Increase in motor sales from 1,933sqm (2 car showrooms) to 4,200sqm (1 large car showroom); a reduction in B2/B8 floor space of 2,267sqm, down to 13,974sqm from 16,214sqm. Overall GFA remains at 18,147sqm.

- 4.3 The peak hour trip rates for the proposed development profiles have been taken from the relevant Transport Assessment for each of the planning applications, taking into the account the associated highway officer consultation responses and Decision Notices. The expected level of vehicle trips for each development are summarised in the tables contained in **Section 3.0** for the peak periods of 0700-0930 and 1600-1830 to assist with the VISSIM modelling.
- 4.4 The loading and distribution of vehicle trips on the network associated with each of these four committed developments will be carried out by AECOM based on their gravity model.
- 4.5 It is concluded that the identified committed developments, associated trip rates and subsequent vehicle trips in this Technical Note are appropriate.

Figure 1

Location of Committed Developments

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PROJECT:			
PEEL HALL, WARRINGTON			
CLIENT:			
SATNAM MILLENNIUM LTD			
PROJECT REFERENCE	DRAWING NUMBER	SCALE:	
1107	FIGURE 1	NOT TO SCALE	

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TITLE: LOCATION PLAN - COMMITTED DEVELOPMENTS			
DATE	DRAWN BY:	CHECKED	DT
20/04/16	FB		



Appendix 1

TRICS Data for Land at Benson Road, Birchwood

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

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	17	4703	0.189	17	4703	0.024	17	4703	0.213
07:30 - 08:00	17	4703	0.452	17	4703	0.056	17	4703	0.508
08:00 - 08:30	17	4703	0.749	17	4703	0.110	17	4703	0.859
08:30 - 09:00	17	4703	0.798	17	4703	0.151	17	4703	0.949
09:00 - 09:30	17	4703	0.480	17	4703	0.131	17	4703	0.611
09:30 - 10:00	17	4703	0.336	17	4703	0.156	17	4703	0.492
10:00 - 10:30	17	4703	0.211	17	4703	0.121	17	4703	0.332
10:30 - 11:00	17	4703	0.154	17	4703	0.143	17	4703	0.297
11:00 - 11:30	17	4703	0.144	17	4703	0.160	17	4703	0.304
11:30 - 12:00	17	4703	0.149	17	4703	0.138	17	4703	0.287
12:00 - 12:30	17	4703	0.124	17	4703	0.180	17	4703	0.304
12:30 - 13:00	17	4703	0.163	17	4703	0.188	17	4703	0.351
13:00 - 13:30	17	4703	0.151	17	4703	0.205	17	4703	0.356
13:30 - 14:00	17	4703	0.196	17	4703	0.170	17	4703	0.366
14:00 - 14:30	17	4703	0.130	17	4703	0.129	17	4703	0.259
14:30 - 15:00	17	4703	0.121	17	4703	0.161	17	4703	0.282
15:00 - 15:30	17	4703	0.103	17	4703	0.136	17	4703	0.239
15:30 - 16:00	17	4703	0.113	17	4703	0.185	17	4703	0.298
16:00 - 16:30	17	4703	0.130	17	4703	0.484	17	4703	0.614
16:30 - 17:00	17	4703	0.104	17	4703	0.472	17	4703	0.576
17:00 - 17:30	17	4703	0.116	17	4703	0.777	17	4703	0.893
17:30 - 18:00	17	4703	0.056	17	4703	0.438	17	4703	0.494
18:00 - 18:30	17	4703	0.028	17	4703	0.249	17	4703	0.277
18:30 - 19:00	17	4703	0.016	17	4703	0.135	17	4703	0.151
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:			5.213			5.099			10.312

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.

Appendix 2

TRICS Data for Birchwood Shopping Centre

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
 VEHICLES
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	714	0.140	1	714	0.000	1	714	0.140
08:00 - 09:00	4	2068	0.193	4	2068	0.036	4	2068	0.229
09:00 - 10:00	4	2068	1.692	4	2068	0.979	4	2068	2.671
10:00 - 11:00	4	2068	2.430	4	2068	1.910	4	2068	4.340
11:00 - 12:00	4	2068	2.671	4	2068	2.309	4	2068	4.980
12:00 - 13:00	4	2068	2.587	4	2068	2.514	4	2068	5.101
13:00 - 14:00	4	2068	3.046	4	2068	2.816	4	2068	5.862
14:00 - 15:00	4	2068	2.611	4	2068	2.744	4	2068	5.355
15:00 - 16:00	4	2068	2.212	4	2068	2.635	4	2068	4.847
16:00 - 17:00	4	2068	1.571	4	2068	2.019	4	2068	3.590
17:00 - 18:00	4	2068	1.680	4	2068	1.765	4	2068	3.445
18:00 - 19:00	4	2068	0.834	4	2068	1.088	4	2068	1.922
19:00 - 20:00	4	2068	0.399	4	2068	0.737	4	2068	1.136
20:00 - 21:00	3	1591	0.000	3	1591	0.126	3	1591	0.126
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		22.066			21.678			43.744	

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

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

Parameter summary

Trip rate parameter range selected:	714 - 3500 (units: sqm)
Survey date range:	01/01/06 - 22/10/11
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE
 VEHICLES
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	3297	1.413	7	3297	0.966	7	3297	2.379
08:00 - 09:00	7	3297	3.605	7	3297	2.479	7	3297	6.084
09:00 - 10:00	7	3297	5.282	7	3297	4.130	7	3297	9.412
10:00 - 11:00	7	3297	6.101	7	3297	5.174	7	3297	11.275
11:00 - 12:00	7	3297	6.608	7	3297	6.474	7	3297	13.082
12:00 - 13:00	7	3297	6.478	7	3297	6.626	7	3297	13.104
13:00 - 14:00	7	3297	6.348	7	3297	6.244	7	3297	12.592
14:00 - 15:00	7	3297	6.227	7	3297	6.461	7	3297	12.688
15:00 - 16:00	7	3297	6.171	7	3297	6.504	7	3297	12.675
16:00 - 17:00	7	3297	6.695	7	3297	6.626	7	3297	13.321
17:00 - 18:00	7	3297	7.085	7	3297	7.475	7	3297	14.560
18:00 - 19:00	7	3297	5.451	7	3297	6.444	7	3297	11.895
19:00 - 20:00	7	3297	4.463	7	3297	4.914	7	3297	9.377
20:00 - 21:00	6	3300	2.420	6	3300	3.304	6	3300	5.724
21:00 - 22:00	6	3300	0.914	6	3300	1.672	6	3300	2.586
22:00 - 23:00	1	4212	0.024	1	4212	0.214	1	4212	0.238
23:00 - 24:00									
Total Rates:			75.285			75.707			150.992

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

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

Parameter summary

Trip rate parameter range selected:	1700 - 5000 (units: sqm)
Survey date date range:	01/01/06 - 19/07/13
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
 VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	865	0.000	1	865	0.000	1	865	0.000
08:00 - 09:00	1	865	0.000	1	865	0.000	1	865	0.000
09:00 - 10:00	1	865	0.809	1	865	0.000	1	865	0.809
10:00 - 11:00	12	700	0.417	12	700	0.179	12	700	0.596
11:00 - 12:00	14	684	0.533	14	684	0.324	14	684	0.857
12:00 - 13:00	15	672	1.449	15	672	0.496	15	672	1.945
13:00 - 14:00	15	672	1.658	15	672	1.350	15	672	3.008
14:00 - 15:00	15	672	1.092	15	672	1.668	15	672	2.760
15:00 - 16:00	15	672	1.112	15	672	1.291	15	672	2.403
16:00 - 17:00	16	648	1.003	16	648	0.868	16	648	1.871
17:00 - 18:00	16	648	1.745	16	648	1.041	16	648	2.786
18:00 - 19:00	16	648	2.044	16	648	1.600	16	648	3.644
19:00 - 20:00	16	648	2.420	16	648	2.227	16	648	4.647
20:00 - 21:00	16	648	1.697	16	648	2.034	16	648	3.731
21:00 - 22:00	16	648	1.089	16	648	1.841	16	648	2.930
22:00 - 23:00	15	634	0.642	15	634	1.557	15	634	2.199
23:00 - 24:00	14	615	0.151	14	615	0.604	14	615	0.755
Total Rates:			17.861			17.080			34.941

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

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

Parameter summary

Trip rate parameter range selected:	178 - 2400 (units: sqm)
Survey date range:	01/01/07 - 19/10/14
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 05 - HEALTH/E - CLINICS
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	17	5.882	1	17	5.882	1	17	11.764
07:00 - 08:00	6	756	0.397	6	756	0.022	6	756	0.419
08:00 - 09:00	8	603	2.426	8	603	0.912	8	603	3.338
09:00 - 10:00	8	603	3.649	8	603	3.069	8	603	6.718
10:00 - 11:00	8	603	2.944	8	603	3.276	8	603	6.220
11:00 - 12:00	8	603	2.136	8	603	2.281	8	603	4.417
12:00 - 13:00	8	603	2.115	8	603	1.783	8	603	3.898
13:00 - 14:00	8	603	1.410	8	603	1.555	8	603	2.965
14:00 - 15:00	7	678	2.275	7	678	2.106	7	678	4.381
15:00 - 16:00	7	678	2.443	7	678	2.422	7	678	4.865
16:00 - 17:00	7	678	1.516	7	678	2.696	7	678	4.212
17:00 - 18:00	7	678	0.821	7	678	1.790	7	678	2.611
18:00 - 19:00	7	678	0.084	7	678	0.295	7	678	0.379
19:00 - 20:00	2	114	0.441	2	114	0.441	2	114	0.882
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	28.539			28.530			57.069		

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

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

Parameter summary

Trip rate parameter range selected:	17 - 4000 (units: sqm)
Survey date date range:	01/01/07 - 10/06/13
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
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	7	2485	0.218	7	2485	0.052	7	2485	0.270
07:30 - 08:00	7	2485	0.535	7	2485	0.080	7	2485	0.615
08:00 - 08:30	7	2485	1.196	7	2485	0.195	7	2485	1.391
08:30 - 09:00	7	2485	1.207	7	2485	0.167	7	2485	1.374
09:00 - 09:30	7	2485	0.868	7	2485	0.241	7	2485	1.109
09:30 - 10:00	7	2485	0.661	7	2485	0.282	7	2485	0.943
10:00 - 10:30	7	2485	0.351	7	2485	0.276	7	2485	0.627
10:30 - 11:00	7	2485	0.172	7	2485	0.184	7	2485	0.356
11:00 - 11:30	7	2485	0.195	7	2485	0.201	7	2485	0.396
11:30 - 12:00	7	2485	0.190	7	2485	0.213	7	2485	0.403
12:00 - 12:30	7	2485	0.305	7	2485	0.402	7	2485	0.707
12:30 - 13:00	7	2485	0.477	7	2485	0.374	7	2485	0.851
13:00 - 13:30	7	2485	0.437	7	2485	0.356	7	2485	0.793
13:30 - 14:00	7	2485	0.443	7	2485	0.253	7	2485	0.696
14:00 - 14:30	7	2485	0.322	7	2485	0.299	7	2485	0.621
14:30 - 15:00	7	2485	0.213	7	2485	0.362	7	2485	0.575
15:00 - 15:30	7	2485	0.213	7	2485	0.264	7	2485	0.477
15:30 - 16:00	7	2485	0.172	7	2485	0.259	7	2485	0.431
16:00 - 16:30	7	2485	0.201	7	2485	0.742	7	2485	0.943
16:30 - 17:00	7	2485	0.184	7	2485	0.949	7	2485	1.133
17:00 - 17:30	7	2485	0.144	7	2485	1.357	7	2485	1.501
17:30 - 18:00	7	2485	0.063	7	2485	0.730	7	2485	0.793
18:00 - 18:30	7	2485	0.034	7	2485	0.351	7	2485	0.385
18:30 - 19:00	7	2485	0.011	7	2485	0.287	7	2485	0.298
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:			8.812			8.876			17.688

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.

Appendix 3

TRICS Data for Birchwood Park

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
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	1	19974	0.000	1	19974	0.005	1	19974	0.005
05:30 - 06:00	1	19974	0.020	1	19974	0.005	1	19974	0.025
06:00 - 06:30	1	19974	0.070	1	19974	0.005	1	19974	0.075
06:30 - 07:00	1	19974	0.105	1	19974	0.025	1	19974	0.130
07:00 - 07:30	25	5803	0.233	25	5803	0.025	25	5803	0.258
07:30 - 08:00	25	5803	0.538	25	5803	0.061	25	5803	0.599
08:00 - 08:30	25	5803	0.863	25	5803	0.091	25	5803	0.954
08:30 - 09:00	25	5803	0.877	25	5803	0.116	25	5803	0.993
09:00 - 09:30	25	5803	0.661	25	5803	0.131	25	5803	0.792
09:30 - 10:00	25	5803	0.376	25	5803	0.141	25	5803	0.517
10:00 - 10:30	25	5803	0.247	25	5803	0.144	25	5803	0.391
10:30 - 11:00	25	5803	0.217	25	5803	0.130	25	5803	0.347
11:00 - 11:30	25	5803	0.172	25	5803	0.157	25	5803	0.329
11:30 - 12:00	25	5803	0.166	25	5803	0.168	25	5803	0.334
12:00 - 12:30	25	5803	0.144	25	5803	0.207	25	5803	0.351
12:30 - 13:00	25	5803	0.192	25	5803	0.219	25	5803	0.411
13:00 - 13:30	25	5803	0.231	25	5803	0.209	25	5803	0.440
13:30 - 14:00	25	5803	0.225	25	5803	0.161	25	5803	0.386
14:00 - 14:30	25	5803	0.197	25	5803	0.159	25	5803	0.356
14:30 - 15:00	25	5803	0.159	25	5803	0.201	25	5803	0.360
15:00 - 15:30	25	5803	0.125	25	5803	0.236	25	5803	0.361
15:30 - 16:00	25	5803	0.139	25	5803	0.280	25	5803	0.419
16:00 - 16:30	25	5803	0.128	25	5803	0.523	25	5803	0.651
16:30 - 17:00	25	5803	0.099	25	5803	0.616	25	5803	0.715
17:00 - 17:30	25	5803	0.114	25	5803	0.891	25	5803	1.005
17:30 - 18:00	25	5803	0.070	25	5803	0.623	25	5803	0.693
18:00 - 18:30	25	5803	0.041	25	5803	0.363	25	5803	0.404
18:30 - 19:00	25	5803	0.017	25	5803	0.183	25	5803	0.200
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:			6.426			6.075			12.501

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

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

Parameter summary

Trip rate parameter range selected:	645 - 19974 (units: sqm)
Survey date date range:	01/01/05 - 24/09/13
Number of weekdays (Monday-Friday):	25
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	5

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.

Vectos (North) Limited 3rd Floor, Oxford Place, 61 Oxford St Manchester

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
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	1	11375	0.000	1	11375	0.000	1	11375	0.000
06:30 - 07:00	1	11375	0.018	1	11375	0.000	1	11375	0.018
07:00 - 07:30	15	12655	0.073	15	12655	0.042	15	12655	0.115
07:30 - 08:00	15	12655	0.185	15	12655	0.040	15	12655	0.225
08:00 - 08:30	15	12655	0.241	15	12655	0.037	15	12655	0.278
08:30 - 09:00	15	12655	0.172	15	12655	0.036	15	12655	0.208
09:00 - 09:30	15	12655	0.081	15	12655	0.036	15	12655	0.117
09:30 - 10:00	15	12655	0.055	15	12655	0.037	15	12655	0.092
10:00 - 10:30	15	12655	0.043	15	12655	0.043	15	12655	0.086
10:30 - 11:00	15	12655	0.040	15	12655	0.033	15	12655	0.073
11:00 - 11:30	15	12655	0.039	15	12655	0.028	15	12655	0.067
11:30 - 12:00	15	12655	0.044	15	12655	0.040	15	12655	0.084
12:00 - 12:30	15	12655	0.043	15	12655	0.066	15	12655	0.109
12:30 - 13:00	15	12655	0.050	15	12655	0.058	15	12655	0.108
13:00 - 13:30	15	12655	0.087	15	12655	0.072	15	12655	0.159
13:30 - 14:00	15	12655	0.131	15	12655	0.057	15	12655	0.188
14:00 - 14:30	15	12655	0.070	15	12655	0.170	15	12655	0.240
14:30 - 15:00	15	12655	0.075	15	12655	0.067	15	12655	0.142
15:00 - 15:30	15	12655	0.048	15	12655	0.089	15	12655	0.137
15:30 - 16:00	15	12655	0.043	15	12655	0.077	15	12655	0.120
16:00 - 16:30	15	12655	0.031	15	12655	0.073	15	12655	0.104
16:30 - 17:00	15	12655	0.043	15	12655	0.150	15	12655	0.193
17:00 - 17:30	15	12655	0.025	15	12655	0.127	15	12655	0.152
17:30 - 18:00	15	12655	0.023	15	12655	0.205	15	12655	0.228
18:00 - 18:30	15	12655	0.025	15	12655	0.095	15	12655	0.120
18:30 - 19:00	15	12655	0.024	15	12655	0.062	15	12655	0.086
19:00 - 19:30	1	11375	0.000	1	11375	0.062	1	11375	0.062
19:30 - 20:00	1	11375	0.018	1	11375	0.062	1	11375	0.080
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:			1.727			1.864			3.591

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

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

Parameter summary

Trip rate parameter range selected:	645 - 43325 (units: sqm)
Survey date date range:	01/01/05 - 12/07/13
Number of weekdays (Monday-Friday):	15
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

Appendix 4

TRICS Data for Calver Park

TRIP RATE for Land Use 14 - CAR SHOW ROOMS/A - CAR SHOW ROOMS
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	4141	0.258	3	4141	0.089	3	4141	0.347
08:00 - 09:00	3	4141	0.708	3	4141	0.370	3	4141	1.078
09:00 - 10:00	3	4141	0.700	3	4141	0.419	3	4141	1.119
10:00 - 11:00	3	4141	0.427	3	4141	0.346	3	4141	0.773
11:00 - 12:00	3	4141	0.427	3	4141	0.410	3	4141	0.837
12:00 - 13:00	3	4141	0.475	3	4141	0.499	3	4141	0.974
13:00 - 14:00	3	4141	0.435	3	4141	0.435	3	4141	0.870
14:00 - 15:00	3	4141	0.443	3	4141	0.459	3	4141	0.902
15:00 - 16:00	3	4141	0.467	3	4141	0.459	3	4141	0.926
16:00 - 17:00	3	4141	0.314	3	4141	0.531	3	4141	0.845
17:00 - 18:00	3	4141	0.346	3	4141	0.467	3	4141	0.813
18:00 - 19:00	3	4141	0.080	3	4141	0.435	3	4141	0.515
19:00 - 20:00	1	3324	0.000	1	3324	0.602	1	3324	0.602
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.080			5.521			10.601

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

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

Parameter summary

Trip rate parameter range selected: 3324 - 5700 (units: sqm)
 Survey date range: 01/01/07 - 24/09/13
 Number of weekdays (Monday-Friday): 3
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 1

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
 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	12	1961	0.119	12	1961	0.030	12	1961	0.149
07:30 - 08:00	12	1961	0.348	12	1961	0.025	12	1961	0.373
08:00 - 08:30	12	1961	0.259	12	1961	0.047	12	1961	0.306
08:30 - 09:00	12	1961	0.280	12	1961	0.098	12	1961	0.378
09:00 - 09:30	12	1961	0.136	12	1961	0.089	12	1961	0.225
09:30 - 10:00	12	1961	0.153	12	1961	0.106	12	1961	0.259
10:00 - 10:30	12	1961	0.115	12	1961	0.123	12	1961	0.238
10:30 - 11:00	12	1961	0.102	12	1961	0.085	12	1961	0.187
11:00 - 11:30	12	1961	0.102	12	1961	0.076	12	1961	0.178
11:30 - 12:00	12	1961	0.076	12	1961	0.076	12	1961	0.152
12:00 - 12:30	12	1961	0.076	12	1961	0.127	12	1961	0.203
12:30 - 13:00	12	1961	0.110	12	1961	0.149	12	1961	0.259
13:00 - 13:30	12	1961	0.132	12	1961	0.115	12	1961	0.247
13:30 - 14:00	12	1961	0.144	12	1961	0.089	12	1961	0.233
14:00 - 14:30	12	1961	0.136	12	1961	0.102	12	1961	0.238
14:30 - 15:00	12	1961	0.136	12	1961	0.132	12	1961	0.268
15:00 - 15:30	12	1961	0.081	12	1961	0.127	12	1961	0.208
15:30 - 16:00	12	1961	0.123	12	1961	0.157	12	1961	0.280
16:00 - 16:30	12	1961	0.106	12	1961	0.204	12	1961	0.310
16:30 - 17:00	12	1961	0.059	12	1961	0.348	12	1961	0.407
17:00 - 17:30	12	1961	0.025	12	1961	0.353	12	1961	0.378
17:30 - 18:00	12	1961	0.025	12	1961	0.221	12	1961	0.246
18:00 - 18:30	11	1694	0.000	11	1694	0.075	11	1694	0.075
18:30 - 19:00	11	1694	0.005	11	1694	0.043	11	1694	0.048
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:			2.848			2.997			5.845

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
 VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	7	2405	0.071	7	2405	0.048	7	2405	0.119
07:30 - 08:00	8	2198	0.148	8	2198	0.080	8	2198	0.228
08:00 - 08:30	8	2198	0.165	8	2198	0.051	8	2198	0.216
08:30 - 09:00	8	2198	0.188	8	2198	0.097	8	2198	0.285
09:00 - 09:30	8	2198	0.108	8	2198	0.148	8	2198	0.256
09:30 - 10:00	8	2198	0.074	8	2198	0.091	8	2198	0.165
10:00 - 10:30	8	2198	0.080	8	2198	0.063	8	2198	0.143
10:30 - 11:00	8	2198	0.074	8	2198	0.085	8	2198	0.159
11:00 - 11:30	8	2198	0.080	8	2198	0.074	8	2198	0.154
11:30 - 12:00	8	2198	0.097	8	2198	0.057	8	2198	0.154
12:00 - 12:30	8	2198	0.114	8	2198	0.125	8	2198	0.239
12:30 - 13:00	8	2198	0.125	8	2198	0.057	8	2198	0.182
13:00 - 13:30	8	2198	0.119	8	2198	0.131	8	2198	0.250
13:30 - 14:00	8	2198	0.097	8	2198	0.080	8	2198	0.177
14:00 - 14:30	8	2198	0.114	8	2198	0.136	8	2198	0.250
14:30 - 15:00	8	2198	0.125	8	2198	0.097	8	2198	0.222
15:00 - 15:30	8	2198	0.080	8	2198	0.142	8	2198	0.222
15:30 - 16:00	8	2198	0.119	8	2198	0.108	8	2198	0.227
16:00 - 16:30	8	2198	0.091	8	2198	0.125	8	2198	0.216
16:30 - 17:00	8	2198	0.080	8	2198	0.131	8	2198	0.211
17:00 - 17:30	8	2198	0.091	8	2198	0.148	8	2198	0.239
17:30 - 18:00	8	2198	0.045	8	2198	0.114	8	2198	0.159
18:00 - 18:30	8	2198	0.017	8	2198	0.108	8	2198	0.125
18:30 - 19:00	8	2198	0.000	8	2198	0.040	8	2198	0.040
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:	2.302			2.336			4.638		

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.