

Appendix 45

HTp/1107/TN/13 – Response to AECOM Technical Review for HE

Highgate*Transportation*

**Land at Peel Hall, Warrington
Response to AECOM Technical Review Note
(ref: 60344053/1619) for Highways England
(HTp/1107/TN/13)**

July 2016

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1.0 Introduction

- 1.1 This Technical Note has been prepared by Highgate Transportation Limited in response to AECOM's Technical Note Review on behalf of Highways England (ref: 60344053/1619) dated 25th May 2016, on the following HTP Technical Notes submitted for comment in support of the forthcoming planning application at Peel Hall:
- i. 1107/TN/02/A Trip Rates
 - ii. 1107/TN/02/A Addendum on peak Period Trip Rates
 - iii. 1107/TN/06 Trip Discounts
 - iv. 1107/TN/08 Number of Vehicular Trips at Each Site Access Location
 - v. 1107/TN/10 Committed Developments
 - vi. 1107/TN/12 Pub Vehicle Trips Update
- 1.2 The development site covers around 65 hectares and is located to the north of Warrington, south of the M62. It is bounded by the existing urban areas of Warrington to the west, south and east and the motorway to the north. An area of council recreation open space is also included within the application site boundary (4 hectares) giving a total site application area of 69 hectares.
- 1.3 The outline application will be for a new residential neighbourhood including C2 and C3 uses; local employment (B1 use); local centre including food store up to 2,000 square metres, A1-A5 (inclusive) and D1 use class units of up to 600 square metres total (with no single units of more than 200 square metres) and family restaurant/pub of up to 800 square metres (A3/A4 use); site for primary school; open space including sports pitches with ancillary facilities; means of access and supporting infrastructure and Peel Hall, Warrington.
- 1.4 The application proposals seek an upper limit on employment floor space to be developed on the site to 7,500 square metres of B1 use type buildings, which will be located to the north western corner of the site. These will be for a range of activities within light industry use class B1(c) i.e. not office buildings, and no individual unit is to be larger than 500 square metres. It is expected that there will be a planning condition to restrict the use class on the local employment land.
- 1.5 The vehicular access points to the site serve specific areas of development and are as follows:
- i. A new roundabout access from the Mill Lane arm of the Mill Lane/Blackbrook Avenue/Ballater Drive roundabout junction.
 - ii. A new priority junction with ghost right turn lane from Poplars Avenue between the junctions of Newhaven Road and Windermere Avenue.
 - iii. Mill Lane, north of Radley Lane.
 - iv. Poplars Avenue (west) between Cotswold Road and Newhaven Road.
 - v. Birch Avenue.

1.6 The access and transport strategy that underpins the development proposals can be summarised as:

- i. To provide as far as possible a largely self-contained development through the provision of a mix of uses including a local centre, a primary school and an area of employment.
- ii. To provide a high quality access and connectivity within the development for bus, pedestrian and cycle movement in order encourage non-car modes of travel and subsequently reduce car use.
- iii. To provide a new bus service that links the site to key locations including the town centre, Orford Jubilee Hub, Warrington Business Park and Collegiate, Warrington Campus of University of Chester, Birchwood Community High School and College, Birchwood Park and Birchwood Shopping Centre.
- iv. To distribute development traffic from the site onto the local highway network at different points in order to reduce the impact.
- v. To provide strong pedestrian and cycle links with the existing and surrounding area as this will help ensure that the development is well integrated with the local community.

1.7 The comments from Highways England summarised within the AECOM review are as follows:

- i. Information should be provided as to the specific employment land use that is likely to be forthcoming on the site, since there is likely to be huge variability between trip rates/vehicular types associated to the various employment land uses. Highways England therefore request a trip rate sensitivity test using rates for the Employment Office and Warehousing Distribution land uses, along with provision of details of the likely HGV/car split
- ii. Highways England wished to clarify whether the size of facilities/sports pitches proposed are consistent with the current facilities.
- iii. As part of the trip discounting assumptions, an additional sensitivity test providing a higher weighting to external food store trips will be required to satisfy Highways England.
- iv. Highways England request the provision of a summary of the data referred to within their statement concerning the derivation of primary school trip discounts.
- v. Clarification should be provided as to whether the school has been designed as a replacement facility for an existing school or whether it is simply being proposed to serve the families of residents within the development site. The assumed catchment area of the school should also be quoted.

- vi. Within the assessment comparisons should be made to the discounting assumptions that have been made within the Omega assessment to ensure consistency.
- vii. Highways England would wish to establish a commitment to implementing the bus gate identified on the masterplan to ensure the restriction on through trips remain in place, throughout the lifetime of the development.
- viii. Once the gravity model, being development by AECOM, has been completed Highways England would wish to comment further upon the assumptions made about the weighting of particular vehicle trips upon each access.
- ix. The Omega development should be included as a committed scheme. Supporting information should be provided identifying the negligible net change to the overall GFA of the B&Q extension at Winwick (ref: 2015/26628) and impact on the local highway network during the peak hours. Highways England requests a sensitivity test within the wider TA analysis which includes Omega development and Winwick B&Q as committed schemes.

1.8 Each comment will now be addressed in turn.

2.0 Employment Land Use

Information should be provided as to the specific employment land use that is likely to be forthcoming on the site, since there is likely to be huge variability between trip rates/vehicular types associated to the various employment land uses.

- 2.1 The planning application is in outline and will be for an area of employment land comprising up to 7,500sqm Gross Floor Area (GFA) of light industrial units. Permission for B1 office land use is not being sought on this land and the developer would be prepared to accept a planning condition restricting the land use to B1(c) activities to ensure suitability with the location next to existing and proposed housing. See **paragraph 1.4** above.

Highways England therefore request a trip rate sensitivity test using rates for the Employment Office and Warehousing Distribution land uses.

- 2.2 Notwithstanding the above, a sensitivity test has been carried out using TRICS to obtain trip rates for B1(a) office employment and B8 Warehousing land uses. The results are set out in **Tables 2.1** and **2.2** respectively, with the proposed vehicular trip generation for this site set out in **Table 2.3** for reference. The TRICS reports to support **Tables 2.1** and **2.2** are contained in **Appendix 2**.

Table 2.1 – B1(a) Employment Vehicular Trip Rates and Generation Summary

Development Traffic	AM Peak Hour		PM Peak Hour		Daily
	Arrival	Departure	Arrival	Departure	
Trip Rates (per 100sqm GFA)	1.910	0.260	0.203	1.837	15.301
Employment Trips (7,500sqm GFA)	143	20	15	138	1,148

Table 2.2 – B8 Employment Vehicular Trip Rates and Generation Summary

Development Traffic	AM Peak Hour		PM Peak Hour		Daily
	Arrival	Departure	Arrival	Departure	
Trip Rates (per 100sqm GFA)	0.301	0.165	0.087	0.251	5.725
Employment Trips (7,500sqm GFA)	23	12	7	19	429

Table 2.3 – B1(c) Employment Vehicular Trip Rates and Generation Summary

Development Traffic	AM Peak Hour		PM Peak Hour		Daily
	Arrival	Departure	Arrival	Departure	
Trip Rates (per 100sqm GFA)	0.919	0.514	0.260	0.621	3.537
Employment Trips (7,500sqm GFA)	69	39	20	47	265

- 2.3 It can therefore be seen from the above tables that B1(c) employment has a lower daily trip rate than other employment land uses, with a development the size of that proposed at Peel Hall attracting around 265 vehicle trips, compared to 1,148 of B1(a) and 429 of B8. Peak hour trip rates for B1(c) are around half of that for B1(a) but higher than that associated with B8 use, which generally have trips spread more evenly across the day.

Provision of details of the likely HGV/car split

- 2.4 Commercial heavy goods vehicles such as 2-axle with twin rear wheels and 3-axle large vans and lorries and all goods vehicles with 4 or more axles (classified as OGVs within TRICS and OGV1 and OGV2 respectively in DMRB) have been reviewed. This is set out in Tables 2.4 to 2.6 below.

Table 2.4 – B1(a) Employment HGV Trip Rates and Generation Summary

Development Traffic	AM Peak Hour		PM Peak Hour		Daily
	Arrival	Departure	Arrival	Departure	
Trip Rates (per 100sqm GFA)	0.002	0.002	0.000	0.005	0.178
Employment Trips (7,500sqm GFA)	0	0	0	0	13

Table 2.5 – B8 Employment HGV Trip Rates and Generation Summary

Development Traffic	AM Peak Hour		PM Peak Hour		Daily
	Arrival	Departure	Arrival	Departure	
Trip Rates (per 100sqm GFA)	0.108	0.072	0.014	0.101	2.338
Employment Trips (7,500sqm GFA)	8	5	1	8	175

Table 2.6 – B1(c) Employment HGV Trip Rates and Generation Summary

Development Traffic	AM Peak Hour		PM Peak Hour		Daily
	Arrival	Departure	Arrival	Departure	
Trip Rates (per 100sqm GFA)	0.067	0.057	0.025	0.025	0.531
Employment Trips (7,500sqm GFA)	5	4	2	2	40

- 2.5 It can be seen that with B1(c) land use, HGV trips may account for up to around 8% of total peak hour traffic from the proposed employment zone and that there would be around 40 HGV trips daily, which is around three times higher than that associated with B1(a) office developments but only a quarter of the HGV trips expected to be associated with B8 use. As set out in **paragraph 2.1**, the developer would be prepared to accept a planning condition restricting the land use to B1(c) activities to ensure suitability with the location next to existing and proposed housing.

3.0 Sports Pitch Land Use

Highways England wished to clarify whether the size of facilities/sports pitches proposed are consistent with the current facilities.

- 3.1 It can be confirmed that the existing playing fields at Mill House are to be moved and provided on a like for like basis in terms of number of pitches and site area in the southern part of the site.
- 3.2 This relocation will be provided to a higher standard than the current provision, with enhancements such as the addition of changing facilities and improved drainage, and will be linked to the improved provision on the council owned Radley Common recreation area at Windermere Avenue (see **paragraphs 1.2 and 1.3**).

4.0 Food Store Land Use

As part of the trip discounting assumptions, an additional sensitivity test providing a higher weighting to external food store trips will be required to satisfy Highways England.

- 4.1 The Omega assessment set out in their January 2016 TA (see paragraph 4.3.2 extract below) was based on the scoping agreement that no new trips would occur on the local highway network associated with the proposed food store; 70% would be contained within the Omega development and the remaining 30% would be pass-by trips.

4.3.2 Through scoping discussions it was agreed that external trips would occur as pass-by trips. It was assumed that pass-by trips would be 30% in the peak periods. The 70% internal foodstore trips were distributed equally on all available internal zones, resulting in 14.2% of such trips being assumed to arrive/depart at each of the 7 zones within the modelled Omega development area.

- 4.2 The Peel Hall development scheme includes the same size store, at 2,000 square metres GFA, and is of a similar size in terms of residential development (1,200 dwellings compared to 1,100 of Omega).
- 4.3 The supporting Technical Note on Trip Discounts for the Peel Hall scheme (TN/06) clearly sets out that only 60% of the Peel Hall food store trips are expected to be internal during the peak hours and only 10% are expected to be pass by, with 30 % new trips on the road network.
- 4.4 Therefore, this is considered to be a more robust approach than that adopted by Omega in their modelling, especially when considering that at Peel Hall 1,180 of the residential dwellings (98.3%) can access the food store without the need to travel off-site.
- 4.5 It is expected that the local catchment area for the food store on Peel Hall will be the area of Poplars to the immediate south of the site and bounded by the A49, A50 and A574, and Houghton Green to the east. This is based on the proximity of the surrounding areas within north Warrington to other stores such as the Aldi at the Sandy Lane junction with the A49, the Tesco Extra off the A49 by the Halliwell Jones Stadium, and the Asda store at Birchwood.
- 4.6 In summary, it is considered that the trip discount figures set out in **paragraph 4.3** and the expected catchment area set out above are appropriate for the Peel Hall modelling.

5.0 Primary School Land Use

Highways England request the provision of a summary of the data referred to within their statement concerning the derivation of primary school trip discounts.

- 5.1 The primary school trip discounts have been based on internal trip containment; the number of pupils expected to be generated by the development based on the calculation factor supplied by Warrington Borough Council, and comparing this to the number of children expected in a school with up to 2-form entry i.e. up to 30 children in each class (therefore 60 children per year group from reception to year 6).
- 5.2 The information for primary school places issued by WBC was based on census data and the following calculation:

0.3 pupil places per dwelling x number of dwellings

0.3 x 1,200 = 360 (85% of primary school places)

- 5.3 With the calculation indicating that the development will generate 360 primary school places based on 1,200 dwellings and the WBC figure of 0.3 pupils per dwelling, it was assumed robust to reduce this figure to 75% for the assessment in the AM peak hour (25% external) in order to be robust and to take into account any fluctuation in trips due to school preferences i.e. attendance at a local faith school rather than the primary school provided on site.
- 5.4 The proportion of external trips has been increased to 50% in the PM peak hour to account for teaching staff living off site as well the traditional pick up time for school children being between 1500 and 1600; outside of the peak period for the assessment. 100% of the trips during 0700 to 0800 have been assumed as external to the site for a robust assessment.
- 5.5 It should be noted that the drop off to school and continue to work trips would be accounted for within the residential trip rate.
- 5.6 Furthermore all residential trips will include for school drop off and collection and therefore double counting of trips is occurring if both 75% of the primary school trips in the AM and 50% of the primary school trips in the PM were also included within the assessment of impact on the wider highway network.

Clarification should be provided as to whether the school has been designed as a replacement facility for an existing school or whether it is simply being proposed to serve the families of residents within the development site. The assumed catchment area of the school should also be quoted.

- 5.7 The proposed school is not a replacement facility, but will be a new primary school to serve the development. This supports the statement set out in **paragraph 5.1** above. The use of TRICS in the assessment is to account for the proportion of trips generated by the school external to the site, such as children living in existing houses in close proximity to the site.

- 5.8 The assumed catchment area of the primary school is the development, widening to include the local residential area off Poplars Avenue and to the immediate east at Cinnamon Brow. This is based on the new primary school being built to serve the development site and not a replacement as per that earmarked for Phase 6 of Omega.
- 5.9 Due to the physical location of the school within the heart of the site, it is not considered reasonable to assume that it would have a wider catchment area.
- 5.10 In the Omega January 2016 TA, it was clear that no assessment of primary school trips was being taken into account bar that accounted for within the residential trip rates derived from TRICS. It has just been assumed that the residential development areas would be well-placed for the new school, as set out in their paragraph 2.1.4 shown below.

2.1.4	Warrington Borough Council is currently promoting a site within Zone 6 of the Omega development for a new primary school (highlighted grey in Figure 2-1) to replace the existing primary school currently located on Barrow Hall Lane. The Omega residential proposal will therefore be extremely well placed for access to education facilities.
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6.0 Omega

Within the assessment comparisons should be made to the discounting assumptions that have been made within the Omega assessment to ensure consistency.

- 6.1 A summary of the trip discounts applied within the Omega assessment to the peak hours is provided in **Table 6.1** below and have been referred to within the report where appropriate.

Table 6.1 – Trip Discount Summary

Land Use and Size	OMEGA		PEEL HALL	
	Internal Trips	External Trips	Internal Trips	External Trips
Food store	70%	30% Pass By	60%	30% & 10% Pass By
Hotel & Restaurant	-	100%	-	-
Residential	-	100%	20%	80%
Care Home	-	100%	-	100%
Family Pub/Restaurant	-	-	25%	75%
Primary School	(Phase 6)	(Phase 6)	75% AM / 50% PM	25% AM / 50% PM
Employment	-	-	-	100%
Local Centre	100%	-	70%	30%
Community Uses	-	-	-	100%

- 6.2 In terms of food store trips, the Omega assessment put no new trips on the network as set out in **paragraph 4.1** but the Peel Hall development has allowed for 30% new trips. Whilst it is acknowledged that food stores generate only a low level of new trips on the network it is considered that an allowance for new trips must be provided for. Furthermore, the residential dwellings proposed at Birch Avenue and Mill Lane and the employment units proposed from the western access on Poplars Avenue will need to travel on the local highway network to access the food store in any event (see **Section 8.0** below).
- 6.3 With regard to the trip levels associated with the Peel Hall residential land uses on site, the assessment has used the profile set out in **Table 6.2** based on the accessibility of the local centre, food store and employment land uses to the proposed dwellings, and the sustainability of the site in terms of links to the wider footway, cycle and public transport network.

Table 6.2 – Trip Discount Summary

Time Period	External Trips	Internal Trips
0700-0800	95%	5%
0800-0900	80%	20%
0900-0930	70%	30%
1600-1700	80%	20%
1700-1800	80%	20%
1800-1830	80%	20%

- 6.4 It should be noted that for Peel Hall the residential trip rates used in the assessment have been provided based on all 1,200 dwellings being privately owned houses. The mix of units and housing types has not been taken into account. This broadly the same approach as Omega.
- 6.5 Retirement housing will also be provided on the Peel Hall site as well as apartments and family homes, and 30% of the dwellings will be provided as affordable units. Retirement housing, affordable units and apartments are known to generally result in much lower trip rates during the peak hours, particularly retirement housing.

7.0 Bus Gate

Highways England would wish to establish a commitment to implementing the bus gate identified on the masterplan to ensure the restriction on through trips remain in place, throughout the lifetime of the development.

- 7.1 As shown on the parameters plan contained in **Appendix 3**, a bus gate is proposed on site and this forms an integral part of the proposed scheme. As such there is a commitment to provide it and extensive discussions have already been held with Network Warrington on this basis.
- 7.2 A phasing program has been set out based on year 1 in 2019, with a 12 year build out that finishes in 2030 on the basis of around 100 residential units per year being completed. This is set out in a table and on an illustrative plan contained in **Appendix 4**.
- 7.3 The spine road is expected to be complete in year 9 (2027), when the bus gate will be introduced and a new bus service provided between the town centre, the site and Birchwood that utilises the bus gate. It is anticipated, based on the initial phasing strategy that the main road through the site and bus gate will be adopted by Warrington Borough Council by 2031.
- 7.4 The type of gate is not formally fixed, but could be of similar design to the two examples set out in **Figures 7.1** and **7.2** below, which have also been agreed with Network Warrington and discussed with officers and Warrington Borough Council.

Figure 7.1 – Bus gate example (Ravenswood)



Figure 7.2 – Bus gate example



8.0 Vehicular Trips at Access Points

Once the gravity model, being development by AECOM, has been completed Highways England would wish to comment further upon the assumptions made about the weighting of particular vehicle trips upon each access.

- 8.1 Whilst the whole site will be fully permeable for pedestrians and cyclists, the parcels of land for residential development correspond directly to a single point of vehicular access only. This is set out in **Table 8.1** below and on the Access Strategy plan contained in **Appendix 5**.

Table 8.1 – Quantum of development served off each access

Access	Units/sqm
Mill Lane	150 Dwellings
Mill Lane/ Blackbrook Avenue	700 Dwellings
	Primary School (up to 420 pupils)
Poplars Ave. (Central)	330 Dwellings
	Food Store (2,000sqm)
	Local Centre (600sqm)
	Family Pub/ Restaurant (1,600sqm)
	100-Bed Care Home
Poplars Ave. (West)	Employment (7,500sqm)
Birch Avenue	20 Dwellings
Grasmere Avenue	Sports Pitches and Community Facilities

- 8.2 The AECOM gravity model has been used to assign trips from these points of access to the local highway network, which has been based on the matrix contained within the Warrington Multi Modal Model.

9.0 Committed Developments

The Omega development should be included as a committed scheme. Supporting information should be provided identifying the negligible net change to the overall GFA of the B&Q extension at Winwick (ref: 2015/26628) and impact on the local highway network during the peak hours. Highways England requests a sensitivity test within the wider TA analysis which includes Omega development and Winwick B&Q as committed schemes.

Omega

- 9.1 It was agreed with highway and planning officers at Warrington Borough Council not to separately account for the Omega site as committed development due to distance from the site. However, it should be noted that high motorway growth rates have been used for all traffic within the Peel Hall VISSIM model, and therefore it can be concluded that the Omega development will be included for within this data; the majority of the modelled network is principal roads and local residential roads, which are far more contained in terms of trip growth. A high level of committed development trips have also been added to the local network as part of this assessment.
- 9.2 Furthermore, it can be seen from the gravity model that the proportion of traffic arising from the Peel Hall development and using the M62 motorway network is relatively low.
- 9.3 The Omega VISSIM network is shown below, taken from the WSP Transport Assessment Addendum dated January 2016 (HTp annotation).

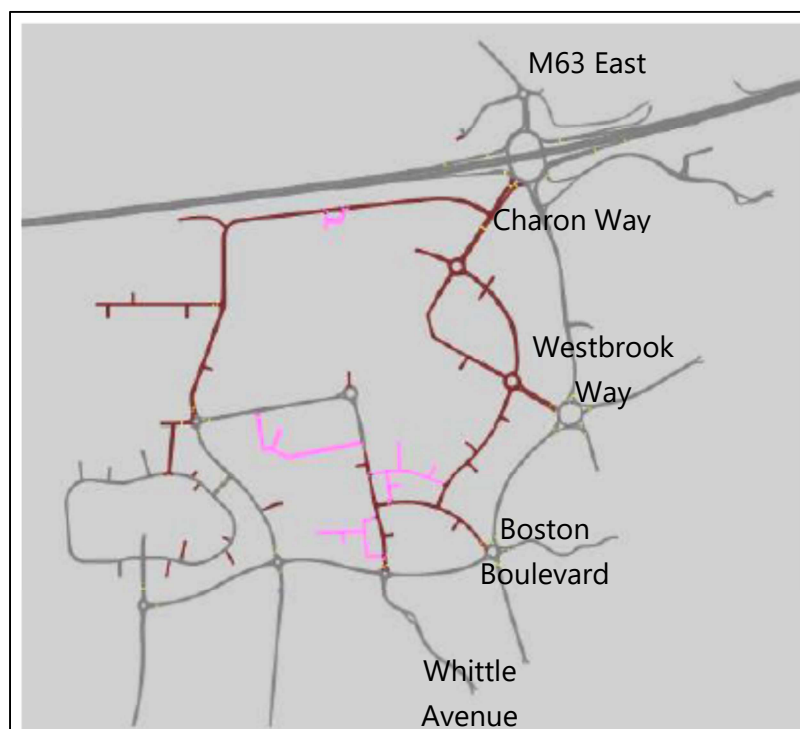


Figure 1: M62 Junction 8 and local area VISSIM Model Coverage

- 9.4 The VISSIM network encompasses the HE VISSIM model, which extends to junction 10 of the M62 in the east and as such includes junction 9 and where it connects to the A49 (A49 to the south of the M62 is coded as zone 11 in the VISSIM model).
- 9.5 From the WSP August 2015 Transport Assessment (extract below, HTP highlight) it can be seen that 0.2% of the Omega residential trips are distribution to/from that zone. This level of traffic is not considered significant and will be accounted for within the high growth rates used.

Table 6-1: Residential Trip Distribution

Ref	Road	Percentage
1	Lingley Green Ave	11.5%
2	Barrow Hall Lane	1.1%
3	Kingsdale Road	0%
4	Whittle Ave	19.8%
5	Malvern Cl	0%
6	Burtonwood Rd	2.4%
7	Westbrook Way	18.4%
8	Kingswood Rd	0%
9	Charon Way	0%
10	A57 (S)	0%
11	A557	0%
12	M62 (W)	11.0%
13	A57 (N)	0.1%
14	St Helens Linkway	2.2%
15	Lockheed Rd	0%
16	Burtonwood Rd	2.9%
17	Service Area Access	0%
18	Delph Ln	0%
19	Winwick Park Ave	0%
20	A48 (N)	1.2%
21	Winwick Link Rd	0%
22	M6 (N)	4.2%
23	M62 (E)	19.6%
24	M6 (S)	5.1%
25	Winwick Rd (S)	0.2%

Winwick B&Q

- 9.6 It was also agreed with highway and planning officers at Warrington Borough Council that the B&Q scheme was to be omitted from the committed development assessment on the basis of lack of change in trips on the local highway network during the peak hour and because there is no increase in floor area as part of the B&Q application.
- 9.7 A summary of the application proposals is provided below from the IMA Transport Note that supported the planning application.

2 Summary of Site Alterations

2.1 The alterations to the store comprise;

- i. Conversion of the uncovered garden centre in the south-west corner of the site into a covered 'click and collect' area and also storeroom/stock area. The click and collect element will function much like a trade-counter, where items that have already been ordered/purchased will be collected by customers. The entrance to the click-and collect area is on the main front elevation to the site.
- ii. The creation of a new stock area in the old-garden centre will result in articulated delivery vehicle entering the service yard at the same point, but making a different turning manoeuvre in the service yard. The service yard is currently located to the north-east of the site (as annotated on Plan 1)
- iii. The builders yard, stock area and 'trade point' areas located at the far eastern side of the site will be reconfigured to accommodate the relocated garden centre. The 'trade-point' (where pre-registered trade customer can make purchases in a dedicated trade area) will be disbanded.
- iv. An outdoor display area will be created along the stores frontage in the eastern side of the car park. This will result in a loss of some parking and reconfiguration of the exit-isle.

- 9.8 The statement on trip change from the TA is also set out below, which supports the justification for not including this site within the committed development assessment for the Peel Hall site.

7 Summary and Conclusion

- 7.1 The internal change to the site are not predicted to give rise to any increase in traffic as there is no change to the overall floor area of the building. A service vehicle can access the relocated service bay. The loss of just seven parking spaces would not have any impact on the operation of the car park; there is parking to spare at all times.

Appendix 1

AECOM Technical Note Review (dated 25th May 2016)

Technical Review Note

Project:	Peel Hall	Job No:	60344053/1619
Subject:	Review of Technical Notes (Trip Rates, Trip Discounting, No' of vehicle Trips at each Access location, Pub Vehicle Trips, and Committed Developments)		
Prepared by:	Pam Hibbert	Date:	25/05/2016
Checked by:	Catherine Zoefitig	Date:	25/05/2016
Approved by:	Mark Edwards	Date:	25/05/2016

1. Introduction

AECOM has prepared this Technical Review Note (TRN), on behalf of Highways England, in response to a series of TN's, dated March and April 2016, which have been produced by Highgate Transportation (HT) on behalf of Satnam Millennium Ltd.

These TN's have been produced to feed into a Transport Assessment, and support the proposed development of land at Peel Hall in Warrington, for the following:

- A residential neighbourhood with up to 1,200 dwellings
- A 100 bed care home
- An area of employment land comprising up to 7,500 square metres Gross Floor Area (GF) of B1(c) light industry
- A neighbourhood centre comprising a food store of up to 2,000 square metres GFA plus up to further 600 square metre GFA of local centre type facilities and a family pub and restaurant of up to 800 square metres GFA
- A primary school for up to two-form entry (i.e. up to 420 pupils)
- Open space including sports pitches and ancillary facilities, which are expected to include changing facilities, for up to four teams at any one time,
- and a function room that could be used for local community uses such as a local mother and toddler group

A meeting with representatives from Highways England, Warrington Borough Council (WBC), and their call-off consultant, ATKINS, to discuss the findings of the TRN was held on 10th May 2016.

2. Background

Highways England has been consulted given the proximity of the site to the Strategic Road Network (SRN), in this case the M62, Junction 9. This TRN will provide Highways England with a review of the TN's prepared by HT in March and April 2016, relating to trip generation during peak periods. The following notes have been provided to AECOM:

1. 1107 TN 02A on Trip Rates (March 2016)
2. 1107 TN 02A Addendum on Peak Period Trip Rates (March 2016)
3. 1107 TN 06 Trip Discounts (March 2016)
4. 1107 TN 08 Number of Vehicular Trips at Each Site Access Location (April 2016)
5. 1107 TN 10 on Committed Developments (April 2016)
6. 1107 TN 12 Pub Vehicle Trips Update (April 2016)

T +44 (0)161 601 1700
F +44 (0)161 601 1799
E pamela.hibbert@aecom.com
www.aecom.com

6th Floor
One New York Street
Manchester
M1 4HD
United Kingdom

The aim is to review the acceptability of both the methodology proposed, and the information provided, as a suitable approach to assessing the impact on the SRN.

This TRN will provide a review of the adequacy of the assessment undertaken, within the HT technical notes, and the associated impacts, with due regard to the M62, in accordance with Highways England's interests. This review has been undertaken in accordance with relevant guidance, in particular DfT Circular 02/2013 *'The Strategic Road Network and the Delivery of Sustainable Development'*.

The site is located approximately 4.5km (distance by road) north west of Warrington Town Centre. The site forms part of Peel Hall, and is bounded to the north by the M62 and east by Mill Lane. Poplars Avenue and Grasmere Avenue border the site to the west and south.

AECOM has been involved in some initial pre-application discussions regarding this particular application (March 2016) and have also been commissioned by the client, Satnam Developments, to prepare the strategic assessment tool (VISSIM model) to accompany the TA.

3. Review of Highgate Transportation Technical Notes

Each TN has been presented and reviewed in the chronological order for ease of reference.

3a. 1107 TN 02A on Trip Rates (March 2016)

The TN notes that discussions have taken place with WBC, and that it was agreed that trip rates, proposed by AECOM, in their review of the Omega application, are appropriate to be used in this assessment, where relevant. Where trip rates were unable to be derived from the Omega application, it was agreed that the TRICS database could be used to provide an indication of the likely number of AM and PM weekday vehicular movements. As a rule, sites within Greater London have been excluded, as it is considered that greater public transport opportunities result in unrepresentative trip rates.

Trip distribution and phasing is considered and set out in HT TN 1107 TN06 Trip Discounts (March 2016). This is reviewed later in section 3c of this TRN.

The following assumptions have been made within the TN on Trip Rates:

- a) Privately owned houses trip rates have been used to cover all peak period residential trips for all 1,200 dwelling units; including retirement flats, social housing and apartments. This is considered a robust approach, since these alternate residential uses are generally considered to result in lower peak period trip rates, than privately owned houses.
- b) The TRICS recommended survey data for B1(c) land use classification of Industrial Units was considered to possibly be too low, and so a higher trip rate has been sought, using B1(c) surveys from the Industrial Estate section of the database, again this is considered a robust approach.
- c) Discount food store trip rates have not been used as per the Omega development. Instead, Food Store rates have been used from the TRICS database and these generate higher trip rates.

These assumptions have been used to provide robust trip levels and therefore confidence can be given to the overall figures used in the assessment.

Residential Trip Rates

The residential trip rates mirror those agreed by WBC from the AECOM review of the Omega residential trip rates inserted into the Highways England VISSIM model. For completeness within this review, these are presented again within the table following:

Table 1: Residential Vehicular Trip Rate and Generation Summary (Privately Owned Houses)

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
85 th Percentile Trip Rates (per unit)	0.225	0.523	0.495	0.307
Residential Trips (1,200 units)	270	628	594	368

No discounts have been made to account for the 100 retirement apartments included within the 1,200 dwellings total. This particular type of retirement land use generates lower trips during the weekday peak hour therefore it is considered that this a robust trip generation for the residential land use overall.

Residential apartments and social housing will also make up a proportion of the 1,200 dwellings proposed on site, but no discounts have been applied. Again, it is considered that this approach is robust and gives confidence to the overall figures used in the assessment.

Care Home Trip Rates

The care home trip rates identified for the Peel Hall assessment mirror those agreed by WBC, in the Omega Transport Assessment, and the associated VISSIM model, Highways England are therefore content with the application of these rates within the overall assessment. The Care Home trip rates are shown in the table following:

Table 2 – Care Home Vehicular Trip Rates and Generation

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
Trip Rates (per bedroom)	0.068	0.068	0.083	0.113
Retirement Flat Trips (100-beds)	7	7	8	8

Employment Trip Rates

Due to the lack of suitable 85th percentile data available within TRICS, HT have instead proposed average trip rate data, for the industrial estate (B1(c)) land uses within the site. HT selected the TRICS Land Use codes 02/C and 02/D, and those sites that did not contain operations classed as B1(c), were then manually removed, from the selection.

It is generally Highways England policy that 85th percentile data be used in developing traffic impact assessments for development sites which impact on the SRN, however given the robustness of Trip Rates demonstrated in the previous land uses, Highways England are willing to accept the use of average rates for this particular land use.

Highways England wish to clarify with HT what specific employment land use is likely to be forthcoming on the site, since there is likely to be huge variability between trip rates / vehicular types associated to potential different employment land uses. Highways England therefore request a sensitivity test using 'trip rates' for the 'Employment Office' and 'Warehousing Distribution' land uses, along with provision of details of the likely HGV / Car split. The table following presents the Employment trips rates.

Table 3 – Employment Vehicular Trip Rates

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
Trip Rates (per 100sqm GFA)	0.919	0.514	0.260	0.621
Employment Trips (7,500sqm GFA)	69	39	20	47

Neighbourhood Centre Trip Rates (Food Store/Local Centre/Family Pub/Restaurant)

A comparison has been carried out between the trip rates from the 'Discount Food Stores' category and the generic 'Food Stores' category.

Due to the low number of surveys returned for 'Discount Food Stores', 85th percentile data has been considered unreliable. Although these rates have been used in the Omega VISSIM model, an assessment of rates for 'Food Stores' has been made to compare trip levels. The table following indicates the trip rates using the 'Discount Food Store' land use, although HT considered that this category generated low trips, and was therefore not considered robust, for use within their assessment.

Table 4 – Discount Food Store Vehicular Trip Rates

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
Trip Rates (per 100sqm GFA)	0.660	0.321	2.799	3.280
Discount Food Store Trips (2,000sqm GFA)	14	7	56	66

To provide confidence and robustness to the Peel Hall development, the peak hour trip rates and generation from the TRICS 'Food Superstores' dataset was used. The low number of surveys meant that the 85th percentile data was not reliable and consequently the average dataset was used. However, since the trip rates are considerably higher than the 'Discount Food Store' category, Highways England is content with average rates being used. The 'Food Store' rates and generations, proposed to be applied within the Peel Hall development assessment, are presented within the table following.

Table 5 – Food Store Trips

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
Trip Rates (per 100sqm GFA)	4.615	3.030	9.056	9.550
Food Store Trips (2,000sqm GFA)	92	61	181	191

The proposed Peel Hall development also includes a 600 sqm GFA local centre. TRICS has been used to provide an indication of the number of AM and PM peak hour vehicular that are likely to be attracted by a local centre of this size. Average trip rates were used due to the survey sample size available and the rates and trips are shown in the following table. Similarly to employment trip rates response, although it is generally Highways England policy to use 85th percentile rates, this land use is considered

a small element in the overall development and therefore, in this instance, Highways England are content with the use average trip rates.

Table 6 – Local Centre Trips

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
Trip Rates (per 100sqm GFA)	5.025	4.780	6.039	6.495
Local Centre Trips (600sqm GFA)	30	29	36	39

Within **TN 1107 TN 02A** on Trip Rates (March 2016), the size of the proposed ‘family pub and restaurant facility’ was identified at 1,600 sqm GFA. This has now been superseded by **TN 1107 TN 12** Pub Vehicle Trips Update (April 2016), which identifies a reduced size of ‘family pub and restaurant’ at 800 sqm GFA. The TRICS database has been used to forecast the number PM peak hour vehicular trips that are likely to be attracted by a family pub/restaurant of this size, (AM is not reported due to the operating times of this land use), the trip rates and generations, (associated to an 800 sqm facility), proposed to be applied within this assessment, are identified in the following table:

Table 7 – Family Pub / Restaurant Trips (800 sq m).

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
Trip Rates (per 100sqm GFA)	-	-	2.847	1.845
Family Pub/Restaurant Trips (800sqm GFA)	-	-	23	15

Primary School Trip Rates

The proposed development scheme includes for to the provision of a two-form entry primary school, which could accomodate up to 420 pupils. TRICS has been used to provide an indication of the number of AM and PM peak hour vehicular trips that are likely to be attracted by a primary school of this size.

An assessment has been made from the TRICS 7.2.4 database based on average data, due to the number of surveys available. Again, whilst it is generally Highways England policy to a use 85th percentile rate, this land use is considered a small element in the overall development and therefore Highways England accept the use of average trip rates in this instance. The primary school trip rates are shown in the table following:

Table 8 – Primary School Vehicular Trip Rate

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
Trip Rates (per pupil)	0.269	0.189	0.045	0.063
Primary School Trips (all 420 pupils)	113	79	19	27
External Primary School Trips (60 pupils)	16	11	3	4

Sports Pitches and Ancillary Facilities Trip Rates

Adjacent to the proposed development at Peel Hall, is a linked site (Located off Windermere and Grasmere Avenues, to the southeast of Peel Hall). This site will provide a development comprising a series of new sports pitches. It is intended that this will replace those sports pitches currently located on existing Homes and Communities Agency (HCA) land, to the east of the site.

The relocated sports pitches will predominantly be used at the weekends, consequently it has therefore been agreed, at the 2013 Public Inquiry, (*Appeal ref: APP/M0655/A/13/2192076*), that this element of the development proposals would not need to be included within the weekday assessments and modelling. Furthermore, it is considered that there will be an offset in trip generation, arising from the existing location, (sports pitches on the HCA land). Consequently, it is considered that this forms a measured analysis of the overall proposals.

Highways England is in agreement with these statements / assumptions, however it wishes to clarify whether the size of facilities / sports pitches proposed on the new site, will be consistent with those on the original site.

Vehicle Trip Impact

An addendum - TN 1107 02A (Trip Rates), has been produced as (TN 1107 02A Addendum (Peak Period Trip Rates) , this sets out the trips rates for all proposed land uses across the whole AM and PM peak periods of 0700-0930 and 1600-1830 to inform the VISSIM modelling of the network. The proposed combined peak period trips are summarised in the following table:

Table 9: Proposed Peak Hour Trips

Development Traffic	AM Peak Hour		PM Peak Hour	
	Arrival	Departure	Arrival	Departure
Residential Trips	270	628	594	368
Care Home Trips	7	7	8	8
Employment Trips	69	39	20	47
Food Store Trips	92	61	181	191
Local Centre Shop Trips	30	29	36	39
Family Pub/Restaurant Trips	-	-	23	15
Primary School Trips	113	79	19	27
Community Uses	10	5	8	7
Total Trips	591	848	889	702

Whilst 85th percentile rates have not been used for all uses, the uses where average rates have been applied tend to be the smaller uses, and that any difference in the rates identified, are to be off-set by those where higher rates have been selected in particular the residential land uses.

3b. 1107 TN 02A Addendum on Peak Period Trip Rates (March 2016)

The TN states that the AM peak period has been classed as 0700-0930 hours and the PM peak period has been classed as 1600-1830 hours. These peak hours are acceptable to Highways England as they tie in with the peak traffic periods that arise upon the SRN. A series of tables indicating the number of trips, has been provided within this TN.

3c. 1107 TN06 Trip Discounts (March 2016)

A third TN has been prepared by HT to set out the estimated trip discounts applied to the Peel Hall development profile which are based upon the combined factors of site access point location and the number of likely internal trips.

The assumptions made include the following:

- The distribution of vehicle trips is to be provided as per a gravity model being prepared by AECOM.
- None of the food store trips will extend beyond the local area and consequently will not travel along the A49.
- Discounts relating to Primary School trips are based on 360 pupils living on site (circa 86%), and the remaining 60 living off site (circa 14%), in the AM peak. In the PM peak, this has been set at 50% external trips, to account for teaching staff living off site, and a greater proportion of after school club children likely to be living on site.

The trip discounts proposed by HT to be applied to the overall trip generation, are identified in the following tables:

Table 10 – AM Peak Hour Trip Discounts

Land Use	Percentage AM Peak Hour 0800-0900			
	Internal	External Pass-by	External New	External Total
Residential	20%	0%	80%	80%
Care Home	0%	0%	100%	100%
Employment	0%	0%	100%	100%
Food Store	60%	10%	30%	40%
Local Centre	70%	0%	30%	30%
Family Pub/Restaurant	-	-	-	-
Primary School	75%	0%	25%	25%
Community Uses	0%	0%	100%	100%

Table 11 – PM Peak Hour Trip Discounts

Land Use	Percentage PM Peak Hour 1700-1800			
	Internal	External Pass-by	External New	External Total
Residential	20%	0%	80%	80%
Care Home	0%	0%	100%	100%
Employment	0%	0%	100%	100%
Food Store	60%	10%	30%	40%
Local Centre	70%	0%	30%	30%
Family Pub/Restaurant	25%	0%	75%	75%
Primary School	50%	0%	50%	50%
Community Uses	0%	0%	100%	100%

With regard to the food store trips Highways England question whether as much as 60% of trips would arise internally from the site. It is also questioned whether the statement that, 'None of the food store trips will extend beyond the local area and consequently will not travel along the A49', is valid and can be justified. Given the foodstores location, on the periphery of the masterplan, Highways England would expect that a higher proportion of trips would be attracted externally. An additional sensitivity test providing a higher weighting to external food store trips would be appropriate in this instance.

No evidence is provided to support the offering of discounts related to the primary school use. In an initial query made by Highways England's call off consultants AECOM, HT responded as follows;

'Information for primary school places issued by WBC was based on census data, and the following calculation: 0.3 places per dwelling x number of dwellings. Allowance for parents who drop off and go to work are contained within residential trips'.

However, it is requested that HT provide a summary of the data, referred to within this statement (WBC census data and 'drop off to work trips' from TRICS). The assumptions made for the AM peak period, (With 75% of trips assumed internal and the remaining 25% external), seem unrealistic.

Although trip rates are considered robust, background data and justification is required to support these discounts.

HT should also clarify whether the school has been designed as a replacement facility for an existing school, or whether it is simply being proposed to serve the families of residents within the development site. The assumed catchment area of the school should be quoted.

Comparisons should be made to the discounting assumptions that were made in the OMEGA assessment to ensure consistency with this development.

Highways England would wish to establish a commitment to implementing the bus gate identified on the masterplan to ensure the restriction on through trips remain in place.

3d. 1107 TN08 Number of Vehicular Trips at Each Site Access Location (April 2016)

A fourth TN has been prepared to detail the strategy for distributing internal trips at each access point across the site. The intention is to use these assumptions to inform the gravity model that AECOM are developing.

A series of tables have been provided indicating the number of vehicular trips during the AM and PM peak periods that are expected to use each of the access points of the proposed development site.

The tables indicate the plot area, land used, and associated combined vehicular trips at each access. It appears that those trips, associated to the land use for each specific plot area, will utilise the access for that specific plot. (For example, 150 dwellings are anticipated to use Mill Lane and 700 dwellings & the primary school are expected to use Mill Lane and Blackbrook Avenue).

Although geographical location appears to be a defining reason behind using certain accesses to exit and enter the site, there appears to be no rationale regarding where the vehicular trips may be travelling to on the external network. The gravity model, developed by AECOM, will provide the wider distribution, using a specially developed Gravity Model, once this exercise has been fully complete, Highways England will need to comment further.

3e. 1107 TN10 on Committed Developments (April 2016)

This TN, prepared by HT identifies the local committed developments within Warrington that are to be accounted for within the traffic impact assessment work associated with the Peel Hall site.

The committed developments include:

- Land at Benson Road, Birchwood (ref: 2015/26220).
- Birchwood Shopping Centre (ref: 2015/25880).
- Birchwood Park (ref: 2015/26044, 2014/23358 and 2008/12744).
- Calver Park (ref: 2015/26685 and 2013/22533).

The corresponding vehicular trip numbers over the peak periods of 0700 to 0930 and 1600 to 1830, and subsequent trip loading locations have been assessed for inclusion into the VISSIM model.

Within the TN on Committed Developments HT has noted the following:

Some committed developments are not included for the following reasons;

- B&Q extension at Winwick (ref: 2015/26628) 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.
- 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).

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 based on the 2015 Transport Assessments that accompanied the respective planning applications.

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 based on the 2015 Transport Assessment.

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 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. Highways England are content with this approach for these committed development. However Highways England question why the OMEGA development has not been included as a committed development? In addition, supporting information should be provided identifying the negligible net change to the overall GFA of the B&Q extension at Winwick (ref: 2015/26628), and impact on the local highway network during peak hours. A sensitivity

test, with OMEGA and B&Q at Winwick should included as committed development, within the wider assessments in the TA.

3f. 1107 TN 12 Pub Vehicle Trips Update (April 2016)

An update to the size of the proposed family pub and restaurant has been provided in the technical note referenced above. This has already been discussed earlier within this TN, in Section 3a.

4. Summary

Highways England is keen to ensure that a fair and robust assessment is undertaken of the likely development proposals. In order to complete a robust analysis, Highways England request the inclusion of the following further information within the assessment / analysis:

- 1) Information should be provided as to the specific employment land use, that is likely to be forthcoming on the site, since there is likely to be huge variability between trip rates / vehicular types associated to the various 'employment' land uses. Highways England therefore request a sensitivity test also using 'trip rates' for the 'Employment Office' and 'Warehousing Distribution' land uses, along with provision of details of the likely HGV / Car split.
- 2) Highways England wishes to clarify whether the size of facilities / sports pitches proposed on the new site, will be consistent with those on the original site.
- 3) As part of the trip discounting assumptions, an additional sensitivity test, providing a higher weighting to 'external' food store trips will be required to satisfy Highways England.
- 4) HT are requested to provide a summary of the data, referred to within their statement concerning the derivation of primary school trip discounts, (WBC census data and 'drop off to work trips' from TRICS).
- 5) Clarification should be provided as to whether the school has been designed as a replacement facility for an existing school, or whether it is simply being proposed to serve the families of residents within the development site. The assumed catchment area of the school should also be quoted.
- 6) Within the assessment, comparisons should be made to the discounting assumptions, that have been made within the OMEGA assessment, to ensure consistency.
- 7) Highways England would wish to establish a commitment to implementing the bus gate identified on the masterplan to ensure the restriction on through trips remain in place, throughout the life of the development.
- 8) Once the gravity model, being developed by AECOM, has been complete, Highways England would wish to comment further upon the assumptions made about the weighting of vehicular trips upon each access.
- 9) The OMEGA development should be included as a committed scheme. Supporting information should be provided identifying the negligible net change to the overall GFA of the B&Q extension at Winwick (ref: 2015/26628), and impact on the local highway network during peak hours. Highways England requests a sensitivity test, within the wider TA analysis, which includes OMEGA development and Winwick B&Q, as committed schemes.

Appendix 2

TRICS Reports - Employment

Calculation Reference: AUDIT-355901-160725-0706

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	KC KENT	3 days
	SC SURREY	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
09	NORTH	
	DH DURHAM	2 days
	TW TYNE & WEAR	3 days

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

Filtering Stage 2 selection:

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

Parameter: Gross floor area
Actual Range: 1500 to 8000 (units: sqm)
Range Selected by User: 1100 to 10000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 26/11/15

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	3 days
Tuesday	6 days
Thursday	2 days
Friday	1 days

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

Selected survey types:

Manual count	12 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6
Edge of Town	6

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

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	3
Residential Zone	4
Built-Up Zone	1

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

Filtering Stage 3 selection:

Use Class:

B1

12 days

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

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	3 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	6 days
1.1 to 1.5	5 days

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

Travel Plan:

Yes	4 days
No	8 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.

LIST OF SITES relevant to selection parameters

1	DH-02-A-01 BRINKBURN ROAD	RPMI OFFICES	DURHAM
	DARLINGTON Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 3372 sqm Survey date: FRIDAY 05/11/10		Survey Type: MANUAL
2	DH-02-A-02 DURHAM ROAD BOWBURN NEAR DURHAM Edge of Town Industrial Zone Total Gross floor area: 2000 sqm Survey date: TUESDAY 27/11/12	CONSTRUCTION COMPANY	DURHAM
3	KC-02-A-06 FOREST ROAD CAMDEN PARK TUNBRIDGE WELLS Edge of Town Residential Zone Total Gross floor area: 5677 sqm Survey date: TUESDAY 01/12/09	LAND REGISTRY	KENT
4	KC-02-A-07 KAVELIN WAY HENWOOD IND. ESTATE ASHFORD Edge of Town Commercial Zone Total Gross floor area: 2525 sqm Survey date: MONDAY 05/12/11	KCC HIGHWAYS REG.	KENT
5	KC-02-A-08 ST MICHAEL'S CLOSE CLAY WOOD AYLESFORD Edge of Town Industrial Zone Total Gross floor area: 3168 sqm Survey date: MONDAY 28/11/11	KCC HIGHWAYS REG. OFFICE	KENT
6	LC-02-A-09 FURTHERGATE	OFFICES	LANCASHIRE
	BLACKBURN Suburban Area (PPS6 Out of Centre) Built-Up Zone Total Gross floor area: 2600 sqm Survey date: TUESDAY 04/06/13		Survey Type: MANUAL
7	SC-02-A-15 BOXGROVE ROAD	ACCOUNTANTS	SURREY
	GUILDFORD Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 1896 sqm Survey date: TUESDAY 05/10/10		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	SF-02-A-01	COUNCIL OFFICES	SUFFOLK
	BEETONS WAY		
	BURY ST. EDMUNDS		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	8000 sqm	
	Survey date: MONDAY	27/09/10	Survey Type: MANUAL
9	TW-02-A-03	DEVELOPMENT AGENCY	TYNE & WEAR
	KINGFISHER BOULEVARD		
	LEMINGTON		
	NEWCASTLE UPON TYNE		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	6480 sqm	
	Survey date: THURSDAY	11/12/08	Survey Type: MANUAL
10	TW-02-A-04	HOUSING CO.	TYNE & WEAR
	EARLSWAY		
	TEAM VALLEY TRAD. EST.		
	GATESHEAD		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2500 sqm	
	Survey date: TUESDAY	29/09/09	Survey Type: MANUAL
11	TW-02-A-05	TELEVISION CO.	TYNE & WEAR
	DELTA BANK ROAD		
	METRO RIVERSIDE PARK		
	GATESHEAD		
	Suburban Area (PPS6 Out of Centre)		
	Commercial Zone		
	Total Gross floor area:	1500 sqm	
	Survey date: TUESDAY	29/09/09	Survey Type: MANUAL
12	WY-02-A-03	OFFICE	WEST YORKSHIRE
	VICTORIA ROAD		
	HEADINGLEY		
	LEEDS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	2696 sqm	
	Survey date: THURSDAY	17/06/10	Survey Type: MANUAL

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

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

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.266	12	3535	0.035	12	3535	0.301
07:30 - 08:00	12	3535	0.467	12	3535	0.085	12	3535	0.552
08:00 - 08:30	12	3535	0.804	12	3535	0.137	12	3535	0.941
08:30 - 09:00	12	3535	1.106	12	3535	0.123	12	3535	1.229
09:00 - 09:30	12	3535	0.905	12	3535	0.198	12	3535	1.103
09:30 - 10:00	12	3535	0.512	12	3535	0.248	12	3535	0.760
10:00 - 10:30	12	3535	0.288	12	3535	0.179	12	3535	0.467
10:30 - 11:00	12	3535	0.186	12	3535	0.205	12	3535	0.391
11:00 - 11:30	12	3535	0.212	12	3535	0.207	12	3535	0.419
11:30 - 12:00	12	3535	0.198	12	3535	0.196	12	3535	0.394
12:00 - 12:30	12	3535	0.243	12	3535	0.323	12	3535	0.566
12:30 - 13:00	12	3535	0.340	12	3535	0.347	12	3535	0.687
13:00 - 13:30	12	3535	0.347	12	3535	0.297	12	3535	0.644
13:30 - 14:00	12	3535	0.340	12	3535	0.217	12	3535	0.557
14:00 - 14:30	12	3535	0.224	12	3535	0.200	12	3535	0.424
14:30 - 15:00	12	3535	0.205	12	3535	0.309	12	3535	0.514
15:00 - 15:30	12	3535	0.156	12	3535	0.328	12	3535	0.484
15:30 - 16:00	12	3535	0.189	12	3535	0.323	12	3535	0.512
16:00 - 16:30	12	3535	0.170	12	3535	0.644	12	3535	0.814
16:30 - 17:00	12	3535	0.134	12	3535	0.750	12	3535	0.884
17:00 - 17:30	12	3535	0.130	12	3535	1.174	12	3535	1.304
17:30 - 18:00	12	3535	0.073	12	3535	0.663	12	3535	0.736
18:00 - 18:30	12	3535	0.035	12	3535	0.368	12	3535	0.403
18:30 - 19:00	12	3535	0.019	12	3535	0.196	12	3535	0.215
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:			7.549			7.752			15.301

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.005	12	3535	0.005	12	3535	0.010
07:30 - 08:00	12	3535	0.017	12	3535	0.017	12	3535	0.034
08:00 - 08:30	12	3535	0.009	12	3535	0.009	12	3535	0.018
08:30 - 09:00	12	3535	0.009	12	3535	0.009	12	3535	0.018
09:00 - 09:30	12	3535	0.009	12	3535	0.012	12	3535	0.021
09:30 - 10:00	12	3535	0.026	12	3535	0.021	12	3535	0.047
10:00 - 10:30	12	3535	0.005	12	3535	0.009	12	3535	0.014
10:30 - 11:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
11:00 - 11:30	12	3535	0.014	12	3535	0.014	12	3535	0.028
11:30 - 12:00	12	3535	0.005	12	3535	0.005	12	3535	0.010
12:00 - 12:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
12:30 - 13:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
13:00 - 13:30	12	3535	0.007	12	3535	0.007	12	3535	0.014
13:30 - 14:00	12	3535	0.005	12	3535	0.002	12	3535	0.007
14:00 - 14:30	12	3535	0.005	12	3535	0.005	12	3535	0.010
14:30 - 15:00	12	3535	0.005	12	3535	0.005	12	3535	0.010
15:00 - 15:30	12	3535	0.007	12	3535	0.009	12	3535	0.016
15:30 - 16:00	12	3535	0.009	12	3535	0.005	12	3535	0.014
16:00 - 16:30	12	3535	0.002	12	3535	0.007	12	3535	0.009
16:30 - 17:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
17:00 - 17:30	12	3535	0.012	12	3535	0.009	12	3535	0.021
17:30 - 18:00	12	3535	0.005	12	3535	0.007	12	3535	0.012
18:00 - 18:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
18:30 - 19:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.162			0.163			0.325

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.002	12	3535	0.000	12	3535	0.002
07:30 - 08:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
08:00 - 08:30	12	3535	0.000	12	3535	0.002	12	3535	0.002
08:30 - 09:00	12	3535	0.002	12	3535	0.000	12	3535	0.002
09:00 - 09:30	12	3535	0.007	12	3535	0.007	12	3535	0.014
09:30 - 10:00	12	3535	0.002	12	3535	0.005	12	3535	0.007
10:00 - 10:30	12	3535	0.009	12	3535	0.009	12	3535	0.018
10:30 - 11:00	12	3535	0.002	12	3535	0.000	12	3535	0.002
11:00 - 11:30	12	3535	0.017	12	3535	0.012	12	3535	0.029
11:30 - 12:00	12	3535	0.005	12	3535	0.009	12	3535	0.014
12:00 - 12:30	12	3535	0.000	12	3535	0.002	12	3535	0.002
12:30 - 13:00	12	3535	0.005	12	3535	0.002	12	3535	0.007
13:00 - 13:30	12	3535	0.002	12	3535	0.005	12	3535	0.007
13:30 - 14:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
14:00 - 14:30	12	3535	0.005	12	3535	0.002	12	3535	0.007
14:30 - 15:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
15:00 - 15:30	12	3535	0.005	12	3535	0.007	12	3535	0.012
15:30 - 16:00	12	3535	0.007	12	3535	0.005	12	3535	0.012
16:00 - 16:30	12	3535	0.009	12	3535	0.007	12	3535	0.016
16:30 - 17:00	12	3535	0.005	12	3535	0.005	12	3535	0.010
17:00 - 17:30	12	3535	0.000	12	3535	0.005	12	3535	0.005
17:30 - 18:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
18:00 - 18:30	12	3535	0.002	12	3535	0.000	12	3535	0.002
18:30 - 19:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.090			0.088			0.178

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
07:30 - 08:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
08:00 - 08:30	12	3535	0.005	12	3535	0.002	12	3535	0.007
08:30 - 09:00	12	3535	0.007	12	3535	0.002	12	3535	0.009
09:00 - 09:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
09:30 - 10:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
10:00 - 10:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
10:30 - 11:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
11:00 - 11:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
11:30 - 12:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
12:00 - 12:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
12:30 - 13:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
13:00 - 13:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
13:30 - 14:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
14:00 - 14:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
14:30 - 15:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
15:00 - 15:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
15:30 - 16:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
16:00 - 16:30	12	3535	0.002	12	3535	0.002	12	3535	0.004
16:30 - 17:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
17:00 - 17:30	12	3535	0.000	12	3535	0.002	12	3535	0.002
17:30 - 18:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
18:00 - 18:30	12	3535	0.000	12	3535	0.002	12	3535	0.002
18:30 - 19:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.052			0.048			0.100

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

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

Parameter summary

Trip rate parameter range selected:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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
 MULTI-MODAL CYCLISTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.002	12	3535	0.000	12	3535	0.002
07:30 - 08:00	12	3535	0.005	12	3535	0.000	12	3535	0.005
08:00 - 08:30	12	3535	0.014	12	3535	0.000	12	3535	0.014
08:30 - 09:00	12	3535	0.014	12	3535	0.000	12	3535	0.014
09:00 - 09:30	12	3535	0.005	12	3535	0.000	12	3535	0.005
09:30 - 10:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
10:00 - 10:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
10:30 - 11:00	12	3535	0.002	12	3535	0.000	12	3535	0.002
11:00 - 11:30	12	3535	0.002	12	3535	0.000	12	3535	0.002
11:30 - 12:00	12	3535	0.002	12	3535	0.000	12	3535	0.002
12:00 - 12:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
12:30 - 13:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
13:00 - 13:30	12	3535	0.000	12	3535	0.002	12	3535	0.002
13:30 - 14:00	12	3535	0.002	12	3535	0.005	12	3535	0.007
14:00 - 14:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
14:30 - 15:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
15:00 - 15:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
15:30 - 16:00	12	3535	0.002	12	3535	0.002	12	3535	0.004
16:00 - 16:30	12	3535	0.007	12	3535	0.005	12	3535	0.012
16:30 - 17:00	12	3535	0.000	12	3535	0.014	12	3535	0.014
17:00 - 17:30	12	3535	0.000	12	3535	0.009	12	3535	0.009
17:30 - 18:00	12	3535	0.000	12	3535	0.017	12	3535	0.017
18:00 - 18:30	12	3535	0.000	12	3535	0.002	12	3535	0.002
18:30 - 19:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.057			0.056			0.113

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.297	12	3535	0.035	12	3535	0.332
07:30 - 08:00	12	3535	0.507	12	3535	0.075	12	3535	0.582
08:00 - 08:30	12	3535	0.875	12	3535	0.118	12	3535	0.993
08:30 - 09:00	12	3535	1.226	12	3535	0.127	12	3535	1.353
09:00 - 09:30	12	3535	0.976	12	3535	0.219	12	3535	1.195
09:30 - 10:00	12	3535	0.545	12	3535	0.276	12	3535	0.821
10:00 - 10:30	12	3535	0.323	12	3535	0.193	12	3535	0.516
10:30 - 11:00	12	3535	0.205	12	3535	0.219	12	3535	0.424
11:00 - 11:30	12	3535	0.238	12	3535	0.226	12	3535	0.464
11:30 - 12:00	12	3535	0.233	12	3535	0.250	12	3535	0.483
12:00 - 12:30	12	3535	0.259	12	3535	0.361	12	3535	0.620
12:30 - 13:00	12	3535	0.403	12	3535	0.391	12	3535	0.794
13:00 - 13:30	12	3535	0.403	12	3535	0.349	12	3535	0.752
13:30 - 14:00	12	3535	0.415	12	3535	0.243	12	3535	0.658
14:00 - 14:30	12	3535	0.283	12	3535	0.240	12	3535	0.523
14:30 - 15:00	12	3535	0.226	12	3535	0.330	12	3535	0.556
15:00 - 15:30	12	3535	0.156	12	3535	0.377	12	3535	0.533
15:30 - 16:00	12	3535	0.196	12	3535	0.340	12	3535	0.536
16:00 - 16:30	12	3535	0.198	12	3535	0.724	12	3535	0.922
16:30 - 17:00	12	3535	0.153	12	3535	0.811	12	3535	0.964
17:00 - 17:30	12	3535	0.139	12	3535	1.316	12	3535	1.455
17:30 - 18:00	12	3535	0.075	12	3535	0.703	12	3535	0.778
18:00 - 18:30	12	3535	0.042	12	3535	0.398	12	3535	0.440
18:30 - 19:00	12	3535	0.021	12	3535	0.207	12	3535	0.228
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:			8.394			8.528			16.922

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.014	12	3535	0.000	12	3535	0.014
07:30 - 08:00	12	3535	0.033	12	3535	0.000	12	3535	0.033
08:00 - 08:30	12	3535	0.094	12	3535	0.005	12	3535	0.099
08:30 - 09:00	12	3535	0.139	12	3535	0.026	12	3535	0.165
09:00 - 09:30	12	3535	0.097	12	3535	0.042	12	3535	0.139
09:30 - 10:00	12	3535	0.073	12	3535	0.040	12	3535	0.113
10:00 - 10:30	12	3535	0.066	12	3535	0.038	12	3535	0.104
10:30 - 11:00	12	3535	0.026	12	3535	0.092	12	3535	0.118
11:00 - 11:30	12	3535	0.042	12	3535	0.057	12	3535	0.099
11:30 - 12:00	12	3535	0.047	12	3535	0.068	12	3535	0.115
12:00 - 12:30	12	3535	0.132	12	3535	0.212	12	3535	0.344
12:30 - 13:00	12	3535	0.198	12	3535	0.177	12	3535	0.375
13:00 - 13:30	12	3535	0.172	12	3535	0.158	12	3535	0.330
13:30 - 14:00	12	3535	0.196	12	3535	0.094	12	3535	0.290
14:00 - 14:30	12	3535	0.127	12	3535	0.066	12	3535	0.193
14:30 - 15:00	12	3535	0.047	12	3535	0.050	12	3535	0.097
15:00 - 15:30	12	3535	0.026	12	3535	0.040	12	3535	0.066
15:30 - 16:00	12	3535	0.031	12	3535	0.054	12	3535	0.085
16:00 - 16:30	12	3535	0.017	12	3535	0.073	12	3535	0.090
16:30 - 17:00	12	3535	0.045	12	3535	0.073	12	3535	0.118
17:00 - 17:30	12	3535	0.012	12	3535	0.118	12	3535	0.130
17:30 - 18:00	12	3535	0.012	12	3535	0.064	12	3535	0.076
18:00 - 18:30	12	3535	0.005	12	3535	0.040	12	3535	0.045
18:30 - 19:00	12	3535	0.002	12	3535	0.005	12	3535	0.007
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:			1.653			1.592			3.245

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.009	12	3535	0.000	12	3535	0.009
07:30 - 08:00	12	3535	0.017	12	3535	0.000	12	3535	0.017
08:00 - 08:30	12	3535	0.066	12	3535	0.000	12	3535	0.066
08:30 - 09:00	12	3535	0.064	12	3535	0.000	12	3535	0.064
09:00 - 09:30	12	3535	0.035	12	3535	0.000	12	3535	0.035
09:30 - 10:00	12	3535	0.024	12	3535	0.000	12	3535	0.024
10:00 - 10:30	12	3535	0.012	12	3535	0.000	12	3535	0.012
10:30 - 11:00	12	3535	0.009	12	3535	0.000	12	3535	0.009
11:00 - 11:30	12	3535	0.005	12	3535	0.002	12	3535	0.007
11:30 - 12:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
12:00 - 12:30	12	3535	0.009	12	3535	0.005	12	3535	0.014
12:30 - 13:00	12	3535	0.000	12	3535	0.005	12	3535	0.005
13:00 - 13:30	12	3535	0.000	12	3535	0.009	12	3535	0.009
13:30 - 14:00	12	3535	0.007	12	3535	0.007	12	3535	0.014
14:00 - 14:30	12	3535	0.002	12	3535	0.024	12	3535	0.026
14:30 - 15:00	12	3535	0.000	12	3535	0.009	12	3535	0.009
15:00 - 15:30	12	3535	0.000	12	3535	0.005	12	3535	0.005
15:30 - 16:00	12	3535	0.005	12	3535	0.005	12	3535	0.010
16:00 - 16:30	12	3535	0.000	12	3535	0.026	12	3535	0.026
16:30 - 17:00	12	3535	0.002	12	3535	0.071	12	3535	0.073
17:00 - 17:30	12	3535	0.000	12	3535	0.042	12	3535	0.042
17:30 - 18:00	12	3535	0.000	12	3535	0.085	12	3535	0.085
18:00 - 18:30	12	3535	0.000	12	3535	0.042	12	3535	0.042
18:30 - 19:00	12	3535	0.000	12	3535	0.005	12	3535	0.005
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.266			0.342			0.608

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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
MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.002	12	3535	0.000	12	3535	0.002
07:30 - 08:00	12	3535	0.002	12	3535	0.000	12	3535	0.002
08:00 - 08:30	12	3535	0.005	12	3535	0.000	12	3535	0.005
08:30 - 09:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
09:00 - 09:30	12	3535	0.000	12	3535	0.002	12	3535	0.002
09:30 - 10:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
10:00 - 10:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
10:30 - 11:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
11:00 - 11:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
11:30 - 12:00	12	3535	0.002	12	3535	0.000	12	3535	0.002
12:00 - 12:30	12	3535	0.002	12	3535	0.000	12	3535	0.002
12:30 - 13:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
13:00 - 13:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
13:30 - 14:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
14:00 - 14:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
14:30 - 15:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
15:00 - 15:30	12	3535	0.000	12	3535	0.002	12	3535	0.002
15:30 - 16:00	12	3535	0.000	12	3535	0.005	12	3535	0.005
16:00 - 16:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
16:30 - 17:00	12	3535	0.000	12	3535	0.007	12	3535	0.007
17:00 - 17:30	12	3535	0.000	12	3535	0.005	12	3535	0.005
17:30 - 18:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
18:00 - 18:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
18:30 - 19:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.013			0.021			0.034

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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
 MULTI-MODAL COACH PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
07:30 - 08:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
08:00 - 08:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
08:30 - 09:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
09:00 - 09:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
09:30 - 10:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
10:00 - 10:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
10:30 - 11:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
11:00 - 11:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
11:30 - 12:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
12:00 - 12:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
12:30 - 13:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
13:00 - 13:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
13:30 - 14:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
14:00 - 14:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
14:30 - 15:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
15:00 - 15:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
15:30 - 16:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
16:00 - 16:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
16:30 - 17:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
17:00 - 17:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
17:30 - 18:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
18:00 - 18:30	12	3535	0.000	12	3535	0.000	12	3535	0.000
18:30 - 19:00	12	3535	0.000	12	3535	0.000	12	3535	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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

Parameter summary

Trip rate parameter range selected:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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
MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.012	12	3535	0.000	12	3535	0.012
07:30 - 08:00	12	3535	0.019	12	3535	0.000	12	3535	0.019
08:00 - 08:30	12	3535	0.071	12	3535	0.000	12	3535	0.071
08:30 - 09:00	12	3535	0.064	12	3535	0.000	12	3535	0.064
09:00 - 09:30	12	3535	0.035	12	3535	0.002	12	3535	0.037
09:30 - 10:00	12	3535	0.024	12	3535	0.000	12	3535	0.024
10:00 - 10:30	12	3535	0.012	12	3535	0.000	12	3535	0.012
10:30 - 11:00	12	3535	0.009	12	3535	0.000	12	3535	0.009
11:00 - 11:30	12	3535	0.005	12	3535	0.002	12	3535	0.007
11:30 - 12:00	12	3535	0.002	12	3535	0.000	12	3535	0.002
12:00 - 12:30	12	3535	0.012	12	3535	0.005	12	3535	0.017
12:30 - 13:00	12	3535	0.000	12	3535	0.005	12	3535	0.005
13:00 - 13:30	12	3535	0.000	12	3535	0.009	12	3535	0.009
13:30 - 14:00	12	3535	0.007	12	3535	0.007	12	3535	0.014
14:00 - 14:30	12	3535	0.002	12	3535	0.024	12	3535	0.026
14:30 - 15:00	12	3535	0.000	12	3535	0.009	12	3535	0.009
15:00 - 15:30	12	3535	0.000	12	3535	0.007	12	3535	0.007
15:30 - 16:00	12	3535	0.005	12	3535	0.009	12	3535	0.014
16:00 - 16:30	12	3535	0.000	12	3535	0.026	12	3535	0.026
16:30 - 17:00	12	3535	0.002	12	3535	0.078	12	3535	0.080
17:00 - 17:30	12	3535	0.000	12	3535	0.047	12	3535	0.047
17:30 - 18:00	12	3535	0.000	12	3535	0.085	12	3535	0.085
18:00 - 18:30	12	3535	0.000	12	3535	0.042	12	3535	0.042
18:30 - 19:00	12	3535	0.000	12	3535	0.005	12	3535	0.005
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.281			0.362			0.643

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	12	3535	0.325	12	3535	0.035	12	3535	0.360
07:30 - 08:00	12	3535	0.563	12	3535	0.075	12	3535	0.638
08:00 - 08:30	12	3535	1.054	12	3535	0.123	12	3535	1.177
08:30 - 09:00	12	3535	1.443	12	3535	0.153	12	3535	1.596
09:00 - 09:30	12	3535	1.113	12	3535	0.264	12	3535	1.377
09:30 - 10:00	12	3535	0.641	12	3535	0.316	12	3535	0.957
10:00 - 10:30	12	3535	0.401	12	3535	0.231	12	3535	0.632
10:30 - 11:00	12	3535	0.243	12	3535	0.311	12	3535	0.554
11:00 - 11:30	12	3535	0.288	12	3535	0.285	12	3535	0.573
11:30 - 12:00	12	3535	0.285	12	3535	0.318	12	3535	0.603
12:00 - 12:30	12	3535	0.403	12	3535	0.578	12	3535	0.981
12:30 - 13:00	12	3535	0.601	12	3535	0.573	12	3535	1.174
13:00 - 13:30	12	3535	0.575	12	3535	0.519	12	3535	1.094
13:30 - 14:00	12	3535	0.620	12	3535	0.349	12	3535	0.969
14:00 - 14:30	12	3535	0.413	12	3535	0.330	12	3535	0.743
14:30 - 15:00	12	3535	0.273	12	3535	0.389	12	3535	0.662
15:00 - 15:30	12	3535	0.182	12	3535	0.424	12	3535	0.606
15:30 - 16:00	12	3535	0.233	12	3535	0.406	12	3535	0.639
16:00 - 16:30	12	3535	0.222	12	3535	0.828	12	3535	1.050
16:30 - 17:00	12	3535	0.200	12	3535	0.976	12	3535	1.176
17:00 - 17:30	12	3535	0.151	12	3535	1.490	12	3535	1.641
17:30 - 18:00	12	3535	0.087	12	3535	0.868	12	3535	0.955
18:00 - 18:30	12	3535	0.047	12	3535	0.483	12	3535	0.530
18:30 - 19:00	12	3535	0.024	12	3535	0.217	12	3535	0.241
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:	10.387			10.541			20.928		

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:	1500 - 8000 (units: sqm)
Survey date date range:	01/01/08 - 26/11/15
Number of weekdays (Monday-Friday):	12
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.

Calculation Reference: AUDIT-355901-160613-0622

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
VEHICLES

Selected regions and areas:

04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
09	NORTH	
	CB CUMBRIA	1 days
	TV TEES VALLEY	1 days

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

Filtering Stage 2 selection:

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

Parameter: Gross floor area
Actual Range: 387 to 4700 (units: sqm)
Range Selected by User: 387 to 10000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 18/09/15

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

Selected survey days:

Tuesday	3 days
Wednesday	1 days
Friday	1 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	1
Edge of Town	2

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

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	1

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

Filtering Stage 3 selection:

Use Class:

B8 4 days

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

Population within 1 mile:

5,001 to 10,000 2 days

10,001 to 15,000 1 days

25,001 to 50,000 2 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 2 days

125,001 to 250,000 1 days

250,001 to 500,000 1 days

500,001 or More 1 days

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

Car ownership within 5 miles:

0.6 to 1.0 3 days

1.1 to 1.5 2 days

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

Travel Plan:

No 5 days

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

LIST OF SITES relevant to selection parameters

1	CB-02-F-01	DOMINO'S PIZZA	CUMBRIA
	COWPER ROAD		
	GILWILLY IND. ESTATE		
	PENRITH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2950 sqm	
	Survey date: TUESDAY	10/06/14	Survey Type: MANUAL
2	DS-02-F-01	ARMADILLO S. STORAGE	DERBYSHIRE
	FORRESTERS BUSINESS P..		
	SINFIN LANE		
	DERBY		
	Edge of Town Centre		
	Commercial Zone		
	Total Gross floor area:	1900 sqm	
	Survey date: TUESDAY	05/07/11	Survey Type: MANUAL
3	SF-02-F-03	ROAD HAULAGE	SUFFOLK
	CENTRAL AVENUE		
	WARREN HEATH		
	IPSWICH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	4700 sqm	
	Survey date: FRIDAY	18/09/15	Survey Type: MANUAL
4	TV-02-F-03	ELECTRICAL COMPONENTS	TEES VALLEY
	UNIT 8,NAVIGATOR COURT		
	STOCKTON-ON-TEES		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	387 sqm	
	Survey date: TUESDAY	28/06/11	Survey Type: MANUAL
5	WM-02-F-01	LEGETT LOGIS.	WEST MIDLANDS
	SAMPSON ROAD NORTH		
	BIRMINGHAM		
	Edge of Town Centre		
	Industrial Zone		
	Total Gross floor area:	4000 sqm	
	Survey date: WEDNESDAY	17/06/09	Survey Type: MANUAL

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

TRIP RATE for Land Use 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	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.102	1	2950	0.000	1	2950	0.102
06:00 - 06:30	1	2950	0.034	1	2950	0.000	1	2950	0.034
06:30 - 07:00	1	2950	0.102	1	2950	0.034	1	2950	0.136
07:00 - 07:30	5	2787	0.108	5	2787	0.050	5	2787	0.158
07:30 - 08:00	5	2787	0.115	5	2787	0.065	5	2787	0.180
08:00 - 08:30	5	2787	0.100	5	2787	0.079	5	2787	0.179
08:30 - 09:00	5	2787	0.201	5	2787	0.086	5	2787	0.287
09:00 - 09:30	5	2787	0.079	5	2787	0.086	5	2787	0.165
09:30 - 10:00	5	2787	0.100	5	2787	0.065	5	2787	0.165
10:00 - 10:30	5	2787	0.129	5	2787	0.115	5	2787	0.244
10:30 - 11:00	5	2787	0.079	5	2787	0.100	5	2787	0.179
11:00 - 11:30	5	2787	0.108	5	2787	0.129	5	2787	0.237
11:30 - 12:00	5	2787	0.108	5	2787	0.050	5	2787	0.158
12:00 - 12:30	5	2787	0.165	5	2787	0.122	5	2787	0.287
12:30 - 13:00	5	2787	0.108	5	2787	0.079	5	2787	0.187
13:00 - 13:30	5	2787	0.144	5	2787	0.158	5	2787	0.302
13:30 - 14:00	5	2787	0.122	5	2787	0.086	5	2787	0.208
14:00 - 14:30	5	2787	0.129	5	2787	0.129	5	2787	0.258
14:30 - 15:00	5	2787	0.122	5	2787	0.129	5	2787	0.251
15:00 - 15:30	5	2787	0.100	5	2787	0.129	5	2787	0.229
15:30 - 16:00	5	2787	0.057	5	2787	0.136	5	2787	0.193
16:00 - 16:30	5	2787	0.065	5	2787	0.093	5	2787	0.158
16:30 - 17:00	5	2787	0.079	5	2787	0.158	5	2787	0.237
17:00 - 17:30	5	2787	0.065	5	2787	0.129	5	2787	0.194
17:30 - 18:00	5	2787	0.022	5	2787	0.122	5	2787	0.144
18:00 - 18:30	5	2787	0.050	5	2787	0.072	5	2787	0.122
18:30 - 19:00	5	2787	0.029	5	2787	0.057	5	2787	0.086
19:00 - 19:30	1	2950	0.169	1	2950	0.102	1	2950	0.271
19:30 - 20:00	1	2950	0.034	1	2950	0.102	1	2950	0.136
20:00 - 20:30	1	2950	0.034	1	2950	0.034	1	2950	0.068
20:30 - 21:00	1	2950	0.068	1	2950	0.102	1	2950	0.170
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:			2.927			2.798			5.725

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:	387 - 4700 (units: sqm)
Survey date date range:	01/01/08 - 18/09/15
Number of weekdays (Monday-Friday):	5
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/F - WAREHOUSING (COMMERCIAL)

TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 06:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:30 - 07:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
07:00 - 07:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
07:30 - 08:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
08:00 - 08:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
08:30 - 09:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
09:00 - 09:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
09:30 - 10:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
10:00 - 10:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
10:30 - 11:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
11:00 - 11:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
11:30 - 12:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
12:00 - 12:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
12:30 - 13:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
13:00 - 13:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
13:30 - 14:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
14:00 - 14:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
14:30 - 15:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
15:00 - 15:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
15:30 - 16:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
16:00 - 16:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
16:30 - 17:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
17:00 - 17:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
17:30 - 18:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
18:00 - 18:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
18:30 - 19:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
19:00 - 19:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
19:30 - 20:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:00 - 20:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:30 - 21:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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

Parameter summary

Trip rate parameter range selected:	387 - 4700 (units: sqm)
Survey date date range:	01/01/08 - 18/09/15
Number of weekdays (Monday-Friday):	5
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/F - WAREHOUSING (COMMERCIAL)

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 06:30	1	2950	0.034	1	2950	0.000	1	2950	0.034
06:30 - 07:00	1	2950	0.034	1	2950	0.000	1	2950	0.034
07:00 - 07:30	5	2787	0.029	5	2787	0.036	5	2787	0.065
07:30 - 08:00	5	2787	0.022	5	2787	0.036	5	2787	0.058
08:00 - 08:30	5	2787	0.029	5	2787	0.029	5	2787	0.058
08:30 - 09:00	5	2787	0.079	5	2787	0.043	5	2787	0.122
09:00 - 09:30	5	2787	0.043	5	2787	0.036	5	2787	0.079
09:30 - 10:00	5	2787	0.036	5	2787	0.022	5	2787	0.058
10:00 - 10:30	5	2787	0.050	5	2787	0.029	5	2787	0.079
10:30 - 11:00	5	2787	0.036	5	2787	0.057	5	2787	0.093
11:00 - 11:30	5	2787	0.086	5	2787	0.086	5	2787	0.172
11:30 - 12:00	5	2787	0.029	5	2787	0.029	5	2787	0.058
12:00 - 12:30	5	2787	0.057	5	2787	0.014	5	2787	0.071
12:30 - 13:00	5	2787	0.065	5	2787	0.029	5	2787	0.094
13:00 - 13:30	5	2787	0.079	5	2787	0.036	5	2787	0.115
13:30 - 14:00	5	2787	0.072	5	2787	0.029	5	2787	0.101
14:00 - 14:30	5	2787	0.093	5	2787	0.043	5	2787	0.136
14:30 - 15:00	5	2787	0.072	5	2787	0.029	5	2787	0.101
15:00 - 15:30	5	2787	0.065	5	2787	0.050	5	2787	0.115
15:30 - 16:00	5	2787	0.022	5	2787	0.022	5	2787	0.044
16:00 - 16:30	5	2787	0.036	5	2787	0.043	5	2787	0.079
16:30 - 17:00	5	2787	0.043	5	2787	0.029	5	2787	0.072
17:00 - 17:30	5	2787	0.014	5	2787	0.036	5	2787	0.050
17:30 - 18:00	5	2787	0.000	5	2787	0.065	5	2787	0.065
18:00 - 18:30	5	2787	0.007	5	2787	0.022	5	2787	0.029
18:30 - 19:00	5	2787	0.007	5	2787	0.043	5	2787	0.050
19:00 - 19:30	1	2950	0.000	1	2950	0.102	1	2950	0.102
19:30 - 20:00	1	2950	0.000	1	2950	0.102	1	2950	0.102
20:00 - 20:30	1	2950	0.000	1	2950	0.034	1	2950	0.034
20:30 - 21:00	1	2950	0.000	1	2950	0.068	1	2950	0.068
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:			1.139			1.199			2.338

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:	387 - 4700 (units: sqm)
Survey date date range:	01/01/08 - 18/09/15
Number of weekdays (Monday-Friday):	5
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/F - WAREHOUSING (COMMERCIAL)

PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 06:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:30 - 07:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
07:00 - 07:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
07:30 - 08:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
08:00 - 08:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
08:30 - 09:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
09:00 - 09:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
09:30 - 10:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
10:00 - 10:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
10:30 - 11:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
11:00 - 11:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
11:30 - 12:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
12:00 - 12:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
12:30 - 13:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
13:00 - 13:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
13:30 - 14:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
14:00 - 14:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
14:30 - 15:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
15:00 - 15:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
15:30 - 16:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
16:00 - 16:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
16:30 - 17:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
17:00 - 17:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
17:30 - 18:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
18:00 - 18:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
18:30 - 19:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
19:00 - 19:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
19:30 - 20:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:00 - 20:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:30 - 21:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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

Parameter summary

Trip rate parameter range selected:	387 - 4700 (units: sqm)
Survey date date range:	01/01/08 - 18/09/15
Number of weekdays (Monday-Friday):	5
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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 06:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:30 - 07:00	1	2950	0.034	1	2950	0.000	1	2950	0.034
07:00 - 07:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
07:30 - 08:00	5	2787	0.007	5	2787	0.000	5	2787	0.007
08:00 - 08:30	5	2787	0.007	5	2787	0.000	5	2787	0.007
08:30 - 09:00	5	2787	0.007	5	2787	0.000	5	2787	0.007
09:00 - 09:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
09:30 - 10:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
10:00 - 10:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
10:30 - 11:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
11:00 - 11:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
11:30 - 12:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
12:00 - 12:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
12:30 - 13:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
13:00 - 13:30	5	2787	0.000	5	2787	0.007	5	2787	0.007
13:30 - 14:00	5	2787	0.007	5	2787	0.000	5	2787	0.007
14:00 - 14:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
14:30 - 15:00	5	2787	0.000	5	2787	0.007	5	2787	0.007
15:00 - 15:30	5	2787	0.000	5	2787	0.007	5	2787	0.007
15:30 - 16:00	5	2787	0.000	5	2787	0.007	5	2787	0.007
16:00 - 16:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
16:30 - 17:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
17:00 - 17:30	5	2787	0.000	5	2787	0.007	5	2787	0.007
17:30 - 18:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
18:00 - 18:30	5	2787	0.000	5	2787	0.000	5	2787	0.000
18:30 - 19:00	5	2787	0.000	5	2787	0.000	5	2787	0.000
19:00 - 19:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
19:30 - 20:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:00 - 20:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:30 - 21:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.062			0.035			0.097

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

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Parameter summary

Trip rate parameter range selected:	387 - 4700 (units: sqm)
Survey date date range:	01/01/08 - 18/09/15
Number of weekdays (Monday-Friday):	5
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.

Appendix 3

Parameters Plan



KEYS

	Site Boundary		Boundary between the historic townships of Arbury and Winwick (Important Hedgerow)		Existing Culvert		10m Foraging bat corridor		Location for Care Home		Location for Community Facility		Area suitable for apartments with mechanical ventilation
	Areas within Site boundary and excluded from the development		Peel Hall Manor Farm Moat Area (Archeological Feature)		Existing hedgerows to be retained		40m Bufferzone to M62 (Air Quality & Noise)		Location for Local Centre		Proposed Tree/ Shrub Planting		Existing sports field/ facilities
	Public right of way		Gas Main and Easement		Existing Pond to be retained		Developable Land to include for pedestrian and cycle links between plots.		Location for Employment Area		Proposed Sports Pitches/ Public Open Space		Radley Common
	Boundary between the historic townships of Arbury and Houghton (Important Hedgerow)		8m Water Vole buffer zone to Spa Brook.		Existing areas of woodland trees and vegetation to be retained.		Indicative Road Line		Location for Primary School		Proposed wildlife corridor		Existing areas of off site vegetation
									Location for Bus Gate				

PEEL HALL, WARRINGTON

Parameters Plan

Project

PEEL HALL, WARRINGTON

Title

Parameters Plan

Client

Satnam Millennium Ltd

Date

21.10.15

Drawn

SW/ DS

Checked

DA/ DS

Scale

1:2,500@A1

Drawing No.

1820_24

Revision

W

Landscape Institute

Registered practice

© Appletons 17 Chorley Old Road, Bolton BL1 3AD. Tel: 01204 393006. Fax: 01204 388792

Web: www.appletons.uk.com Email: info@appletons.uk.com

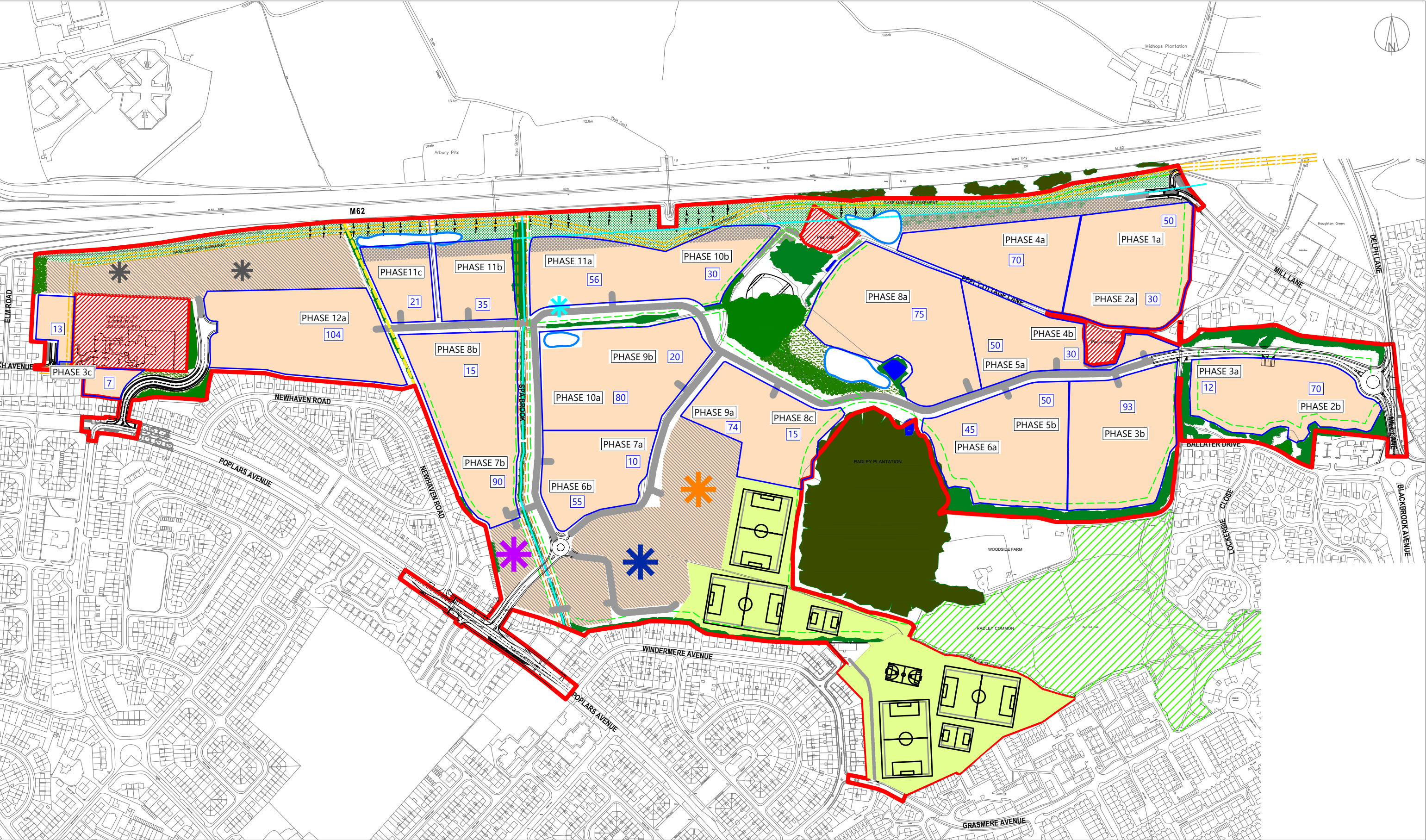
Appendix 4

Indicative Phasing Table and Plan

Peel Hall Indicative Phasing Table

Year End	Number of Residential Units off Each Access								Indicative Phasing (number of properties sold at year end)	
	Distributor Road Blackbrook Ave		Distributor Road Poplars Ave		Mill Lane		Birch Ave			Cumulative Total
	New	Cum.	New	Cum.	New	Cum.	New	Cum.		
1	0	0	0	0	50	50	0	0	50	Phase 1a 50 Relocated sports pitches
2	70	70	0	0	30	80	0	0	150	Phase 2a 30 Phase 2b 70 Temporary emergency link to be via Radley Lane (north). Need first part of distributor road from east and turning area for bus service.
3	105	175	0	0	0	80	20	20	275	Local Centre and Care Home off Poplars Ave. Phase 3a 12 Phase 3b 93 Phase 3c 20
4	30	205	0	0	70	150	0	20	375	Employment Land off Poplars Ave (west). Phase 4a 70 Phase 4b 30 Requires a temporary emergency link through to Peel Cottage Lane.
5	100	305	0	0	0	150	0	20	475	Phase 5a 50 Phase 5b 50
6	45	350	55	55	0	150	0	20	575	Phase 6a 45 Phase 6b 55

Year End	Number of Residential Units off Each Access								Indicative Phasing (number of properties sold at year end)	
	Distributor Road Blackbrook Ave		Distributor Road Poplars Ave		Mill Lane		Birch Ave			Cumulative Total
	New	Cum.	New	Cum.	New	Cum.	New	Cum.		
7	0	350	100	155	0	150	0	20	Phase 7a 10 Phase 7b 90	
8	90	440	15	170	0	150	0	20	Phase 8a 75 Phase 8b 15 Phase 8c 15	
9	94	534	0	170	0	150	0	20	Phase 9a 74 Phase 9b 20 Need to complete distributor road for full bus service. Temporary emergency access through to employment land/Elm Road.	
10	110	644	0	170	0	150	0	20	Phase 10a 80 Phase 10b 30 Primary School	
11	56	700	56	226	0	150	0	20	Phase 11a 56 Phase 11b 35 Phase 11c 21	
12	0	700	104	330	0	150	0	20	Phase 12a 104	



NOTES:
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KEY:
Indicative Phase Numbering

Indicative Number of units Completed at Year End

PHASE 8b

12

Phasing subject to detailed phasing plan to be submitted at Reserved Matters stage

ISSUE	REASON FOR REVISION	DATE
DATE:	DRAWN BY:	CHECKED:
28/06/16	FB	FB

PROJECT:
PEEL HALL,
WARRINGTON

CLIENT:
SATNAM MILLENNIUM LTD

TITLE:
INDICATIVE
PHASING PLAN

PROJECT REFERENCE:	DRAWING NUMBER:	SCALE:
1107	27/B	NOT TO SCALE

Highgate*Transportation*

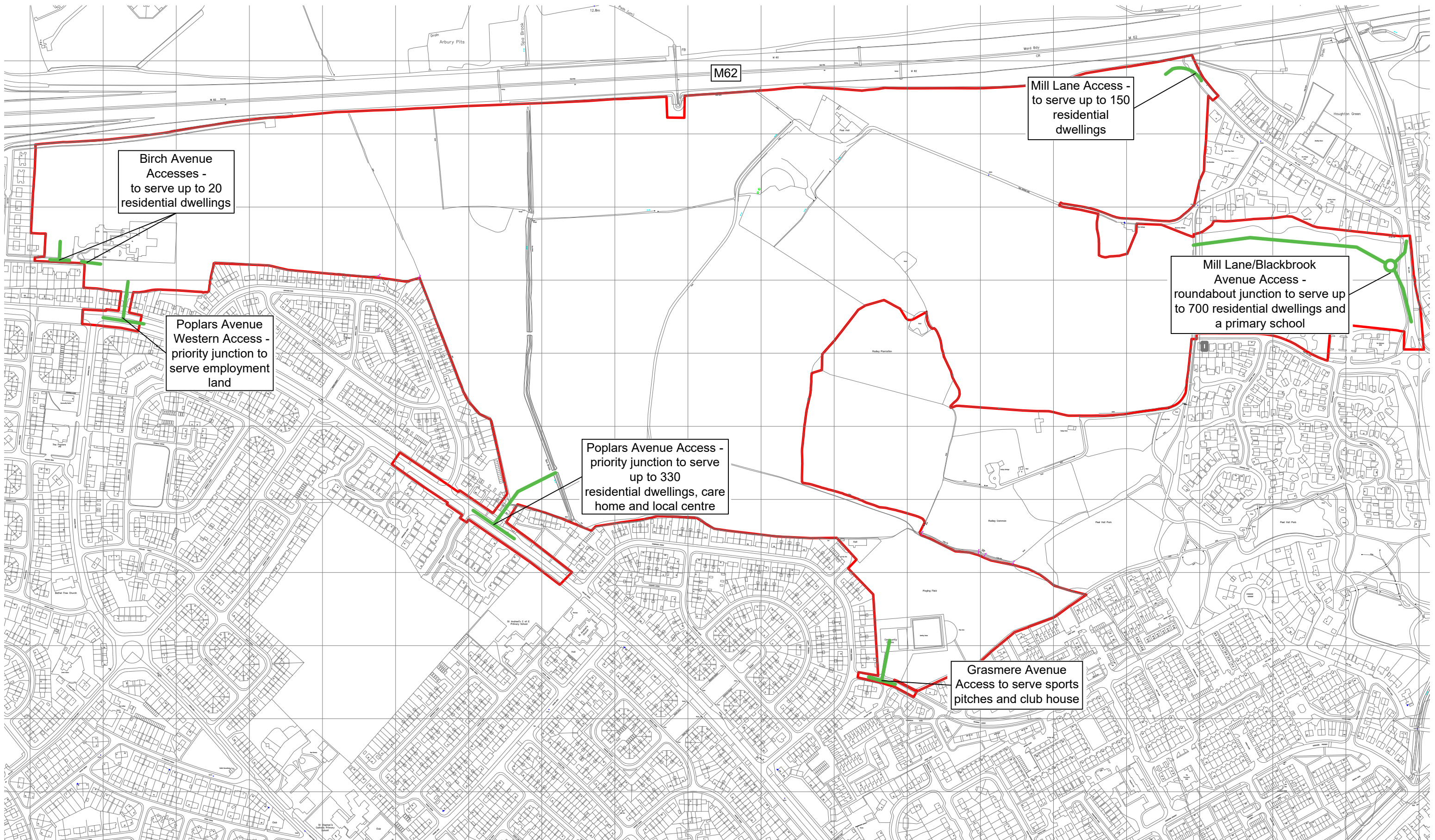
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Appendix 5

Access Strategy



NOTES:
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ISSUE	REASON FOR REVISION	DATE
DATE:	DRAWN BY:	CHECKED:
11/05/16	FB	DT

PROJECT:
PEELS HALL, WARRINGTON

CLIENT:
SATNAM

TITLE:
ACCESS STRATEGY -
OVERVIEW PLAN

PROJECT REFERENCE:	DRAWING NUMBER:	SCALE:
1107	34	Not to scale

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