


EFSAC TECHNICAL NOTE

Prepared on behalf of ROK Projects Ltd



Date : 07 May 2021
Project : Queens Road, Buckhurst Hill
Project Ref : 2003990
Report Ref : 2003990-02
Report Title : EFSAC Technical Note

DOCUMENT CONTROL

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Client Draft	AA	IW	DRAFT	07/05/2021
-	Planning Issue	AA	AT AT	IW 	10/05/2021

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SITE: Queens Road, Buckhurst Hill

1.0 INTRODUCTION

Ardent Consulting Engineers (ACE) has been commissioned by ROK Projects Ltd ('the Applicant') to support the proposed redevelopment at 75 to 77 Queens Road, Buckhurst Hill, IG9 5BW (hereafter known as 'the site'). (refer to **Figure 1**).



Figure 1: Site Location

This report supports a planning application (reference EPF/2808/20) for the redevelopment of the existing commercial and flatted development which currently occupies the site (comprising 3 no. commercial units, 1 no. office and 3 no. residential flats). It is proposed to maintain the existing commercial operation on the ground floor (although it has been reduced to around a third of the existing site) and the existing residential flats. The redevelopment scheme seeks to redevelop the existing office space to provide a total of 8 no. residential flats. This results in an uplift of 8 no. flats over the existing situation, but a reduction in both office and commercial floorspace as a result.

This application was supported by a Transport Statement (TS); Report Reference 2003990-01, prepared by ACE dated November 2020.

Within the submitted TS, Section 5 and 6 reviewed the development's impacts upon the Epping Forest Special Area of Conservation (EFSAC), concluding that the redevelopment was expected to reduce vehicle movements in comparison to the existing site.

At the time of the submission, the EFSAC Interim Air Pollution Mitigation Strategy produced by Epping Forest District Council (EFDC) had not been approved, however, subsequent to the application being lodged, greater clarity has been received regarding the approach being taken by EFDC and guiding developers to address their schemes with reference to Appendix 2 of said Strategy document.

Following clarity of a number of points with the EFDC Officer responsible for reviewing the impacts upon the EFSAC, this EFSAC Technical Note has been produced to summarise the approach taken to assessing the impacts of the development upon the EFSAC and the local road network in that area.

Much of the information is based upon work contained within the original TS submission, however, some additional aspects have been covered within this document to provide greater clarity and to more accurately reflect the impacts of the development.

2.0 METHODOLOGY

The existing commercial use at the site is to be maintained, albeit that each of the 3 no. units are to be reduced in scale. Despite this reduction in floorspace, for robustness, no removal of movements associated with the commercial development has been included within the analysis. Clearly, a smaller footprint would however likely reduce commercial traffic.

Likewise, movements associated with the existing 3 no. flats have been retained in the analysis given they would be expected to remain unchanged and would be already occurring on the local highway network, albeit if these flats ultimately had any potential parking spaces removed as part of the scheme then again it would be expected to reduce vehicle movements at the site.

In order to assess the impacts of the development upon the EFSAC, the following methodology has been used:

Baseline (Existing) Information

- Use information obtained from the previous site operator to identify the likely vehicular traffic movements that occurred at the site;
- In order to sense-check the figures, a TRICS review has also been undertaken;
- Apply vehicle movements onto EFSAC network using Journey to Work Census data as a proxy for movement patterns.

Proposed (Development) Scenario

- Obtain TRICS data of Privately Owned Flats for vehicle movements for weekdays and weekends;
- Apply vehicle movements onto EFSAC network using Journey to Work Census data as a proxy for movement patterns.

3.0 TRIP GENERATION – EXISTING SITUATION

As outlined within the TS, the following information has been supplied by the Managing Director of the former site operator to identify the likely vehicular traffic movements that occurred at the site (given the site is no longer operating in this fashion):

- 6 no. members of staff based in the office (all staff arrive in the AM peak hour and depart in the PM peak hour);
- 6 no. engineers based out of office (all engineers depart from the site in the AM peak hour after collecting vans / equipment / instructions etc from the office and arrive back in the PM peak hour to discuss jobs with office based staff); and

- Usually, there would not be any further movements during the day although engineers may return to the base for further supplies. Therefore, an allowance has been made for 50% of engineers to return and leave again during the day. This is therefore considered a robust assessment.

It is understood from the Managing Director that both Saturdays and Sundays are a normal working day. However, it is assumed that not all office staff and engineers will work every weekend. Therefore, an allowance has been made for 33% of the total trips to occur over the weekend.

The resultant daily vehicle movements (two-way) for the existing office use are shown in **Table 3.1**, along with the calculated AADT.

Table 3.1: Existing Vehicle Movements

Vehicles	Two-Way Vehicle Trips (Daily)
Weekday	30
Weekend	10
Calculated AADT	23

*Figures subject to rounding

In AADT terms, the existing situation would be predicted to generate 23 two-way vehicle movements per day AADT (an average of 5 weekdays and 2 weekend daily movements) as per table 6.1 of the TS.

The AADT figure is expected to comprise almost exclusively of car or van driver movements, in comparison to HGVs. The existing site is expected to have occasional HGV deliveries but the vast proportion of trips are undertaken by staff and engineers in cars and light goods vehicles. The percentage of HDVs is therefore assumed to be 0% for the purposes of this analysis.

In order to sense-check these figures, the TRICS database has been reviewed to consider the application of TRICS survey data to the existing office floorspace of 115

sqm. **Appendix A** contains the TRICS output for small-sized offices, which shows a two-way daily (7am to 7pm) rate of 27 vehicles per 100 sqm floorspace.

When applied to the 115 sqm existing office floorspace, this equates to 31 vehicle movements in a weekday, which is consistent with the information provided by the former operator.

Application of Extant Trips onto Road Network

In order to apply the AADT vehicle trips onto the local road network, the Journey to Work Census Data for the ward in which the site resides (Epping Forest 015) has been used, with the data set to "place of work".

The Datashine Commute website (commute.datashine.org.uk) was used to select the Epping Forest 015 Super Output Area with car driver as the selected mode of travel to the site. This allows an analysis of all journeys from other Super Output Areas to the Epping Forest 015 Super Output Area as a proxy for all vehicle movements to and from the existing site.

The calculation of routes is provided at **Appendix B**.

Following this, the percentage of vehicle drivers to / from each of the Super Output Areas was calculated. This was then applied to the overall AADT figure of 23 to calculate vehicle movements to / from each Super Output Area.

The vast majority (83%) of all trips do not pass through or close to the EFSAC area. However, a number of routes were identified that would result in vehicles passing through the EFSAC. **Figure 3.1** overleaf illustrates these routes:

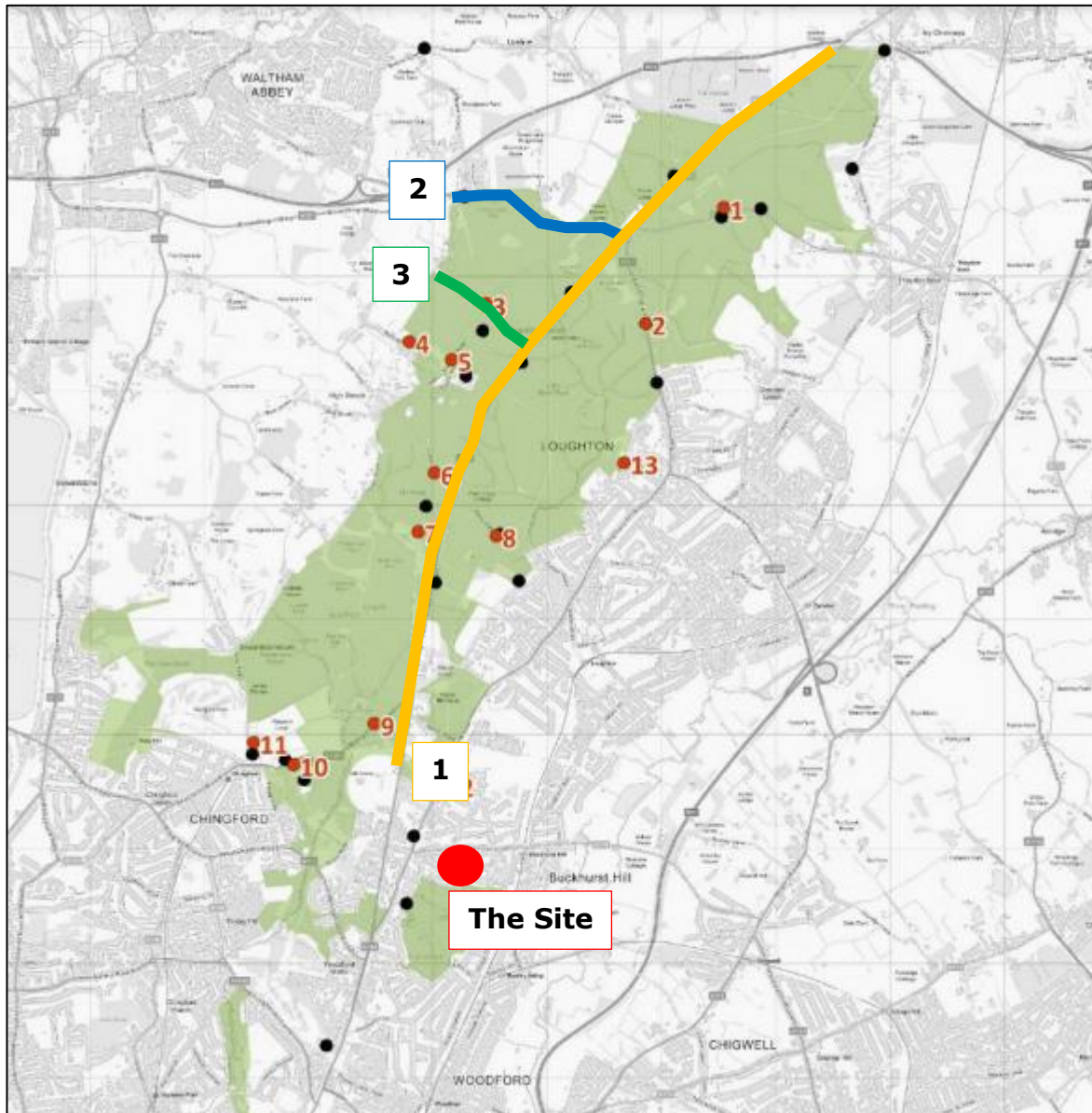


Figure 3.1 – Roads Assessed in the EFSAC

These routes have been summarised in **Table 3.2** overleaf:

Table 3.2: Breakdown of AADT on routes through EFSAC – Existing Situation
(source: Datashine Commute)

Route	Direction	Total Percentage of Overall AADT Trips	AADT Vehicles
1. Epping Road / Epping New Road	South	13%	3
2. A121 / Epping New Road	East / South	1%	0
3. Avey Lane / Epping New Road	East / South	3%	1
Calculated AADT	-	17%	4

*Figures subject to rounding

In total, 17% of AADT movements from the existing site are predicted to pass through parts of the EFSAC network, with the overall number of vehicles being just 4 (two-way) movements per day. Of all the routes, the absolute numbers are very low, with no more than 3 vehicles predicted on any particular road in the EFSAC to the existing site.

4.0 TRIP GENERATION - PROPOSED DEVELOPMENT

As has been outlined in the methodology, the following process has been followed, with the data provided at **Appendix C**.

TRICS Data

As identified in the accompanying TS, the following trip rate selections were made:

- All regions excluding Greater London, Ireland, Scotland and Wales;
- Edge of Town Centre and Suburban locations;
- Privately Owned Flats selected; and
- Trip rate based upon number of units (between 6 to 50 units – 6 being the minimum selection possible).

The same process has been undertaken to calculate weekend trip rates, noting that the level of vehicular movement will be different on weekends than weekdays. To this end, the same parameters were used to filter out suitable sites, albeit that there are fewer surveys on weekends in the TRICS database so the number of units was increased to between 6 and 100 and Edge of Town locations was included. The results are considered appropriate for analysis.

As the focus of the impacts upon the EFSAC area is Annual Average Daily Traffic (AADT), the data from TRICS covering 7am to 7pm daily level doesn't fully cover the required period. Given residential developments would be expected to have a volume of overnight movements, an increase of 25% has been applied to take this into account. This approach has been taken and agreed elsewhere in the EFDC area.

It should be noted that all person trip rates were used on the weekday. The mode of travel for the site has been determined from the "Travel to Work – Resident Population" dataset provided within the 2011 Census database for the area within which the site falls. The modal share has been applied to the forecast person trips to identify proposed vehicle movements.

The resultant daily (7am to 7pm) vehicle movements (two-way) for the proposed net change in development (8 dwellings) are shown in **Table 4.1**, along with the calculated AADT.

Table 4.1: Proposed Vehicle Movements (source: TRICS)

Vehicles	Two-Way Vehicle Trips (07:00 – 19:00)	Calculated AADT Vehicles including 25% increase for overnight
Weekday	17	22
Weekend	17	22
Calculated AADT	-	22

*Figures subject to rounding

In AADT terms, the proposed residential development is predicted to generate 22 two-way vehicle movements per day AADT (an average of 5 weekdays and 2 weekend daily movements).

It is considered that the proposed development traffic will comprise almost exclusively car driver movements, with deliveries mainly in the form of panel vans and dot.com vehicles. As a result, the AADT has been based upon a 0% HDV proportion.

In comparison to the existing situation at the site, this is a net reduction in vehicle movements of 1 vehicle AADT.

Application of Extant Trips onto Road Network

In order to apply the AADT vehicle trips onto the local road network, the Journey to Work Census Data for the ward in which the site resides (Epping Forest 015) has been used, with the data set to "journey to work".

The Datashine Commute website (commute.datashine.org.uk) was used to select the Epping Forest 015 Super Output Area with car driver as the selected mode of travel from the site. This allows an analysis of all journeys from the Epping Forest 015 Super Output Area to their place of work Super Output Area as a proxy for all vehicle movements to and from the proposed site.

The calculation of routes is provided at **Appendix D**.

Following this, the percentage of vehicle drivers to / from each of the Super Output Areas was calculated. This was then applied to the overall AADT figure of 22 to calculate vehicle movements to / from each Super Output Area.

The vast majority (88%) of all trips do not pass through or close to the EFSAC area. However, as with the existing situation, a number of routes were identified that would result in vehicles passing through the EFSAC.

These routes have been summarised in **Table 4.2** overleaf:

Table 4.2: Breakdown of AADT on routes through EFSAC – Proposed Situation
(source: Datashine Commute and TRICS)

Route	Direction	Total Percentage of Overall AADT Trips	AADT Vehicles
1. Epping New Road / Epping Road	North	8%	2
2. Epping New Road / A121	North / West	3%	1
3. Epping New Road / Avey Lane	North / West	1%	0
Calculated AADT	-	12%	3

*Figures subject to rounding

In total, 12% of AADT movements from the proposed residential development are predicted to pass through parts of the EFSAC network, with the overall number of vehicles being just 3 (two-way) movements per day. Of all the routes, the absolute numbers are very low, with no more than 2 vehicles predicted on any particular road in the EFSAC from the proposed development.

Table 4.3 provides a comparison of the change in vehicle movements on each of these routes through the EFSAC network.

Table 4.3: Comparison of AADT impacts on routes through EFSAC – (source: Datashine Commute and TRICS)

Route	Existing AADT on Route	Proposed AADT on Route	Change in AADT Level
1. Epping New Road / Epping Road	3	2	-1
2. Epping New Road / A121	0	1	+1
3. Epping New Road / Avey Lane	1	0	-1
Calculated AADT	4	3	-1

*Figures subject to rounding

Overall, 2 out of the 3 routes are predicted to experience reductions in vehicles at the AADT level in comparison with the existing situation, with one route expected to

operate with an increase of 1 vehicle movement. This however does not take into account the reduction in commercial floorspace as part of the redevelopment proposals.

Cumulatively, and as was demonstrated in the supporting TS, there is predicted to be a cumulative reduction in AADT from the proposals in comparison to the existing operation.

5.0 FURTHER MITIGATION AND SUMMARY

This EFSAC Technical Note has been produced in light of the new guidance contained with the EFDC Interim Air Pollution Mitigation Strategy.

The original TS contained analysis of the predicted impacts of the development at the AADT level at the site itself, however, a detailed review of the localised effects of the development proposals has been undertaken.

In order to do this, the AADT has been calculated for the existing development and the proposed increase in the residential proportion of the development.

The existing commercial use at the site is to be maintained, albeit that each of the 3 no. units are to be reduced in scale. Despite this reduction in floorspace, for robustness, no removal of movements associated with the commercial development has been included within the analysis. Clearly, a smaller footprint would however likely reduce commercial traffic.

Likewise, movements associated with the existing 3 no. flats have been retained in the analysis given they would be expected to remain unchanged and would be already occurring on the local highway network, albeit if these flats ultimately had any potential parking spaces removed as part of the scheme then again it would be expected to reduce vehicle movements at the site.

The Journey to Work Census Data has been assessed to calculate the existing and proposed vehicle distribution from the site.

This Technical Note provides further information in order for the application to be judged for its impacts upon roads in the EFSAC by reviewing the impacts of the vehicle generations onto roads within the EFSAC using both TRICS analysis and Census data for Journey to Work for car drivers.

The conclusion is that the proposed redevelopment of the site would result in a slight reduction in the AADT level on roads within the EFSAC, and on that basis no further assessment is required.

Natural mitigation measures are built into the proposals, with restricted car parking provided, provision of cycle parking to ECC standards, and a requirement for Residential Travel Information Packs to be provided upon occupation.

It is acknowledged that the development will be subject to a charging regime based upon the number of units to cover both recreational impacts within the EFSAC, and that this is accepted by the applicant.

It is also understood that a charge is to be levied on any new dwellings as part of the Interim Air Pollution Mitigation Strategy and again this is accepted by the applicant. It is understood that this charge is currently £335 per dwelling.

The APMS suggests that the threshold for potential additional analysis is 6 units or 0.2 hectares. This site proposes a net increase in 8 residential units, however a reduction in commercial floorspace is also proposed and has not been considered within this analysis. Despite that, there is an overall reduction in vehicle movements in the EFSAC area, and it is considered that this site falls below the requirement for further detailed analysis as a result.

On the basis of the above, it is considered that there will be a reduction in AADT within the EFSAC area, with the site falling below the triggers for further analysis - it is considered that no further analysis or monitoring specific to this development is therefore necessary.

Appendices

Appendix A

TRICS Data (Existing)

Calculation Reference: AUDIT-437201-210507-0537

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES	EAST SUSSEX 2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY	NORTH YORKSHIRE 1 days
	WY	WEST YORKSHIRE 1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 178 to 442 (units: sqm)
 Range Selected by User: 178 to 450 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 04/10/18

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

Tuesday	1 days
Wednesday	1 days
Thursday	1 days
Friday	1 days

*This data displays the number of selected surveys by day of the week.*Selected survey types:

Manual count	4 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:

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

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

Residential Zone	2
Built-Up Zone	1
High Street	1

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

Secondary Filtering selection:

Use Class:

Not Known 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®.*Filter by Site Operations Breakdown:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000

1 days

25,001 to 50,000

3 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*Population within 5 miles:

50,001 to 75,000

1 days

75,001 to 100,000

1 days

100,001 to 125,000

1 days

250,001 to 500,000

1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*Car ownership within 5 miles:

0.6 to 1.0

2 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:

Yes

1 days

No

3 days

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

No PTAL Present

4 days

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

LIST OF SITES relevant to selection parameters

1	ES-02-A-11	HOUSING COMPANY	EAST SUSSEX
	THE SIDINGS		
	HASTINGS		
	ORE VALLEY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	186 sqm	
	Survey date: TUESDAY	17/11/15	Survey Type: MANUAL
2	ES-02-A-13	OFFICES	EAST SUSSEX
	ROMAN ROAD		
	HOVE		
	Edge of Town Centre		
	Residential Zone		
	Total Gross floor area:	280 sqm	
	Survey date: WEDNESDAY	04/07/18	Survey Type: MANUAL
3	NY-02-A-01	SOLICITORS	NORTH YORKSHIRE
	NORTH PARK ROAD		
	HARROGATE		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	178 sqm	
	Survey date: THURSDAY	04/10/18	Survey Type: MANUAL
4	WY-02-A-04	INSURANCE COMPANY	WEST YORKSHIRE
	BRADFORD ROAD		
	CLECKHEATON		
	Town Centre		
	High Street		
	Total Gross floor area:	442 sqm	
	Survey date: FRIDAY	23/09/16	Survey Type: MANUAL

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

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

TOTAL 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	2	233	0.000	2	233	0.000	2	233	0.000
07:30 - 08:00	2	233	0.429	2	233	0.000	2	233	0.429
08:00 - 08:30	4	272	1.473	4	272	0.000	4	272	1.473
08:30 - 09:00	4	272	2.118	4	272	0.368	4	272	2.486
09:00 - 09:30	4	272	1.197	4	272	1.289	4	272	2.486
09:30 - 10:00	4	272	1.289	4	272	1.013	4	272	2.302
10:00 - 10:30	4	272	0.829	4	272	0.737	4	272	1.566
10:30 - 11:00	4	272	0.737	4	272	0.737	4	272	1.474
11:00 - 11:30	4	272	0.276	4	272	0.460	4	272	0.736
11:30 - 12:00	4	272	0.460	4	272	0.460	4	272	0.920
12:00 - 12:30	4	272	0.184	4	272	0.460	4	272	0.644
12:30 - 13:00	4	272	0.552	4	272	0.737	4	272	1.289
13:00 - 13:30	4	272	0.276	4	272	0.460	4	272	0.736
13:30 - 14:00	4	272	0.645	4	272	0.368	4	272	1.013
14:00 - 14:30	4	272	0.460	4	272	0.737	4	272	1.197
14:30 - 15:00	4	272	0.552	4	272	0.552	4	272	1.104
15:00 - 15:30	4	272	0.460	4	272	0.368	4	272	0.828
15:30 - 16:00	4	272	0.184	4	272	0.368	4	272	0.552
16:00 - 16:30	4	272	0.460	4	272	1.013	4	272	1.473
16:30 - 17:00	4	272	0.460	4	272	1.289	4	272	1.749
17:00 - 17:30	4	272	0.184	4	272	1.289	4	272	1.473
17:30 - 18:00	4	272	0.000	4	272	0.368	4	272	0.368
18:00 - 18:30	2	233	0.429	2	233	0.429	2	233	0.858
18:30 - 19:00	2	233	0.000	2	233	0.000	2	233	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:			13.654			13.502			27.156

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

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

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Parameter summary

Trip rate parameter range selected:	178 - 442 (units: sqm)
Survey date date range:	01/01/13 - 04/10/18
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix B

Journey to Work Census Routes (Existing)

From Work	To Home	Total	Pass Through EFSAC Area	% Vehicles	Route	Notes			Route	Roads in EFSAC Affected	Direction	Totals	Vehicles AADT
Epping Forest 015	Epping Forest 015	105	NO	11%		Internal to ward	Total NO	83%	1	Epping Road / Epping New Road	South	13%	3
Epping Forest 012	Epping Forest 015	65	NO	7%		Loughton	Total YES	17%	2	A121 / Epping New Road	East / South	1%	0
Redbridge 001	Epping Forest 015	60	NO	6%		Woodford Green			3	Epping New Road / Avey Lane	East / South	3%	1
Epping Forest 013	Epping Forest 015	45	NO	5%		Debden							
Epping Forest 016	Epping Forest 015	45	NO	5%		Chigwell					Total	17%	4
Waltham Forest 002	Epping Forest 015	39	YES	4%	1	Chingford							
Epping Forest 011	Epping Forest 015	38	NO	4%		Debden							
Epping Forest 014	Epping Forest 015	38	NO	4%		Buckhurst / Loughton							
Epping Forest 010	Epping Forest 015	36	YES	4%	1	Theydon Bois							
Redbridge 004	Epping Forest 015	33	NO	3%		Woodford Green							
Redbridge 009	Epping Forest 015	25	NO	3%		South Woodford							
Epping Forest 017	Epping Forest 015	24	NO	2%		Chigwell / Fairlop							
Waltham Forest 003	Epping Forest 015	24	NO	2%		Chingford Hatch							
Waltham Forest 001	Epping Forest 015	23	NO	2%		Chingford							
Redbridge 006	Epping Forest 015	23	NO	2%		Fairlop							
Epping Forest 008	Epping Forest 015	22	YES	2%	3	Waltham Abbey							
Redbridge 014	Epping Forest 015	19	NO	2%		Wanstead							
Waltham Forest 007	Epping Forest 015	19	NO	2%		Highams Park							
Epping Forest 006	Epping Forest 015	16	YES	2%	1	Coopersale							
Waltham Forest 014	Epping Forest 015	15	NO	2%		Higham Hill							
Epping Forest 005	Epping Forest 015	14	YES	1%	1	Thornwood							
Epping Forest 001	Epping Forest 015	14	YES	1%	1	Hastingwood							
Epping Forest 009	Epping Forest 015	13	YES	1%	2	Cheshunt / High Beech							
Waltham Forest 006	Epping Forest 015	13	NO	1%		Chingford Mount							
Waltham Forest 004	Epping Forest 015	12	NO	1%		Chingford Hatch							
Epping Forest 003	Epping Forest 015	12	NO	1%		Chipping Ongar							
Epping Forest 004	Epping Forest 015	12	NO	1%		Chipping Ongar							
Redbridge 007	Epping Forest 015	12	NO	1%		South Woodford							
Redbridge 005	Epping Forest 015	12	NO	1%		Woodford Bridge							
Redbridge 036	Epping Forest 015	11	NO	1%		Clayhall							
Waltham Forest 005	Epping Forest 015	11	NO	1%		Chingford Mount							
Waltham Forest 008	Epping Forest 015	11	NO	1%		Highams Park							
Redbridge 002	Epping Forest 015	11	NO	1%		Hainault							
Redbridge 019	Epping Forest 015	10	NO	1%		Little Heath							
Redbridge 010	Epping Forest 015	10	NO	1%		Fullwell Cross							
Epping Forest 002	Epping Forest 015	9	YES	1%	1	Nazeing							
Havering 008	Epping Forest 015	9	NO	1%		Collier Row							
Redbridge 018	Epping Forest 015	8	NO	1%		Wanstead							
Epping Forest 007	Epping Forest 015	8	YES	1%	3	Waltham Abbey							
Harlow 005	Epping Forest 015	8	NO	1%		Old Harlow							
Waltham Forest 009	Epping Forest 015	7	NO	1%		Walthamstow							
Brentwood 001	Epping Forest 015	7	NO	1%		Kelvedon Hatch							
Brentwood 004	Epping Forest 015	6	NO	1%		Brentwood							
Waltham Forest 011	Epping Forest 015	6	NO	1%		Walthamstow							
Enfield 007	Epping Forest 015	6	NO	1%		Brimsdown							
Redbridge 013	Epping Forest 015	6	NO	1%		Marks Gate							
Havering 003	Epping Forest 015	6	NO	1%		Havering-atte-Bower							
	Total	978		100.00%									

Appendix C

TRICS Data (Proposed)

Calculation Reference: AUDIT-437201-200911-0928

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
 MULTI-MODAL OGVS

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	1 days
03	SOUTH WEST	
	DC DORSET	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 6 to 30 (units:)
 Range Selected by User: 6 to 50 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 25/09/19

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

Selected survey days:

Tuesday	1 days
Wednesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	4 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	1
Suburban Area (PPS6 Out of Centre)	3

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

Selected Location Sub Categories:

Residential Zone	4
------------------	---

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

Secondary Filtering selection:

Use Class:

C3

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:

10,001 to 15,000

2 days

20,001 to 25,000

1 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:

50,001 to 75,000

2 days

125,001 to 250,000

1 days

250,001 to 500,000

1 days

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

Car ownership within 5 miles:

1.1 to 1.5

4 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

4 days

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

PTAL Rating:

No PTAL Present

4 days

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

LIST OF SITES relevant to selection parameters

1	DC-03-C-02 PALM COURT WEYMOUTH SPA ROAD Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: <i>Survey date: FRIDAY</i>	FLATS IN BLOCKS 14 28/03/14	DORSET <i>Survey Type: MANUAL</i>
2	DS-03-C-03 CAESAR STREET DERBY Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: <i>Survey date: WEDNESDAY</i>	BLOCKS OF FLATS 30 25/09/19	DERBYSHIRE <i>Survey Type: MANUAL</i>
3	EX-03-C-01 WESTCLIFF PARADE SOUTHEND-ON-SEA WESTCLIFF Edge of Town Centre Residential Zone Total No of Dwellings: <i>Survey date: TUESDAY</i>	FLATS 6 22/10/13	ESSEX <i>Survey Type: MANUAL</i>
4	SF-03-C-03 TOLLGATE LANE BURY ST EDMUNDS Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: <i>Survey date: WEDNESDAY</i>	BLOCKS OF FLATS 30 03/12/14	SUFFOLK <i>Survey Type: MANUAL</i>

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	20	0.000	4	20	0.013	4	20	0.013
08:00 - 09:00	4	20	0.000	4	20	0.000	4	20	0.000
09:00 - 10:00	4	20	0.013	4	20	0.013	4	20	0.026
10:00 - 11:00	4	20	0.000	4	20	0.000	4	20	0.000
11:00 - 12:00	4	20	0.000	4	20	0.000	4	20	0.000
12:00 - 13:00	4	20	0.000	4	20	0.000	4	20	0.000
13:00 - 14:00	4	20	0.000	4	20	0.000	4	20	0.000
14:00 - 15:00	4	20	0.013	4	20	0.013	4	20	0.026
15:00 - 16:00	4	20	0.000	4	20	0.000	4	20	0.000
16:00 - 17:00	4	20	0.000	4	20	0.000	4	20	0.000
17:00 - 18:00	4	20	0.000	4	20	0.000	4	20	0.000
18:00 - 19:00	4	20	0.000	4	20	0.000	4	20	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.026			0.039			0.065

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	20	0.150	4	20	0.350	4	20	0.500
08:00 - 09:00	4	20	0.125	4	20	0.400	4	20	0.525
09:00 - 10:00	4	20	0.212	4	20	0.350	4	20	0.562
10:00 - 11:00	4	20	0.150	4	20	0.275	4	20	0.425
11:00 - 12:00	4	20	0.200	4	20	0.163	4	20	0.363
12:00 - 13:00	4	20	0.175	4	20	0.125	4	20	0.300
13:00 - 14:00	4	20	0.150	4	20	0.150	4	20	0.300
14:00 - 15:00	4	20	0.237	4	20	0.212	4	20	0.449
15:00 - 16:00	4	20	0.225	4	20	0.175	4	20	0.400
16:00 - 17:00	4	20	0.250	4	20	0.175	4	20	0.425
17:00 - 18:00	4	20	0.500	4	20	0.188	4	20	0.688
18:00 - 19:00	4	20	0.388	4	20	0.338	4	20	0.726
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.762			2.901			5.663	

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL LGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	20	0.013	4	20	0.000	4	20	0.013
08:00 - 09:00	4	20	0.013	4	20	0.013	4	20	0.026
09:00 - 10:00	4	20	0.037	4	20	0.025	4	20	0.062
10:00 - 11:00	4	20	0.000	4	20	0.025	4	20	0.025
11:00 - 12:00	4	20	0.050	4	20	0.037	4	20	0.087
12:00 - 13:00	4	20	0.000	4	20	0.000	4	20	0.000
13:00 - 14:00	4	20	0.000	4	20	0.000	4	20	0.000
14:00 - 15:00	4	20	0.000	4	20	0.000	4	20	0.000
15:00 - 16:00	4	20	0.025	4	20	0.025	4	20	0.050
16:00 - 17:00	4	20	0.000	4	20	0.013	4	20	0.013
17:00 - 18:00	4	20	0.025	4	20	0.025	4	20	0.050
18:00 - 19:00	4	20	0.025	4	20	0.025	4	20	0.050
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.188			0.188			0.376

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.

Calculation Reference: AUDIT-437201-210506-0515

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	SC SURREY	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 28 to 72 (units:)
 Range Selected by User: 6 to 100 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 16/10/20

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:

Saturday	3 days
----------	--------

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

Selected survey types:

Manual count	3 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)	2
Edge of Town	1

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

Selected Location Sub Categories:

Residential Zone	3
------------------	---

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

Secondary Filtering selection:

Use Class:

C3	3 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 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 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:

100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	3 days
------------	--------

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

Travel Plan:

No	3 days
----	--------

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

PTAL Rating:

No PTAL Present	3 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	DS-03-C-02	FLATS	DERBYSHIRE
	BURTON ROAD		
	DERBY		
	NEW NORMANTON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	28	
	Survey date: SATURDAY	09/07/11	Survey Type: MANUAL
2	SC-03-C-03	FLATS	SURREY
	KINGS ROAD		
	WOKING		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	52	
	Survey date: SATURDAY	19/07/08	Survey Type: MANUAL
3	SC-03-C-04	BLOCK OF FLATS	SURREY
	LONDON ROAD		
	GUILDFORD		
	BURPHAM		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	72	
	Survey date: SATURDAY	23/10/10	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 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	51	0.013	3	51	0.046	3	51	0.059
08:00 - 09:00	3	51	0.020	3	51	0.059	3	51	0.079
09:00 - 10:00	3	51	0.033	3	51	0.105	3	51	0.138
10:00 - 11:00	3	51	0.092	3	51	0.092	3	51	0.184
11:00 - 12:00	3	51	0.086	3	51	0.112	3	51	0.198
12:00 - 13:00	3	51	0.072	3	51	0.112	3	51	0.184
13:00 - 14:00	3	51	0.151	3	51	0.171	3	51	0.322
14:00 - 15:00	3	51	0.105	3	51	0.092	3	51	0.197
15:00 - 16:00	3	51	0.112	3	51	0.066	3	51	0.178
16:00 - 17:00	3	51	0.158	3	51	0.092	3	51	0.250
17:00 - 18:00	3	51	0.086	3	51	0.066	3	51	0.152
18:00 - 19:00	3	51	0.132	3	51	0.079	3	51	0.211
19:00 - 20:00	1	72	0.111	1	72	0.097	1	72	0.208
20:00 - 21:00	1	72	0.083	1	72	0.069	1	72	0.152
21:00 - 22:00	1	72	0.083	1	72	0.042	1	72	0.125
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.337			1.300			2.637

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

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

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Parameter summary

Trip rate parameter range selected: 28 - 72 (units:)
 Survey date range: 01/01/08 - 16/10/20
 Number of weekdays (Monday-Friday): 0
 Number of Saturdays: 3
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

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

Appendix D

Journey to Work Census Routes (Proposed)

From Home	To Work	Total	Pass Through EFSAC Area	% Vehicles	Route	Notes
Epping Forest 015	No fixed place	285	NO	18%		
Epping Forest 015	Epping Forest 015	105	NO	7%		Internal to ward
Epping Forest 015	Epping Forest 011	76	NO	5%		Debden
Epping Forest 015	Epping Forest 012	75	NO	5%		Loughton
Epping Forest 015	Redbridge 001	64	NO	4%		Woodford Green
Epping Forest 015	Epping Forest 016	49	NO	3%		Chigwell
Epping Forest 015	Tower Hamlets 033	43	NO	3%		Canary Wharf
Epping Forest 015	Redbridge 007	41	NO	3%		South Woodford
Epping Forest 015	Epping Forest 005	40	YES	3%	1	Thornwood
Epping Forest 015	Harlow 004	33	YES	2%	1	Harlow
Epping Forest 015	Epping Forest 009	32	YES	2%	2	Cheshunt / High Beech
Epping Forest 015	Epping Forest 014	31	NO	2%		Buckhurst / Loughton
Epping Forest 015	Waltham Forest 019	29	NO	2%		Whipps Cross
Epping Forest 015	Redbridge 036	25	NO	2%		Clayhall
Epping Forest 015	Waltham Forest 002	23	YES	1%	1	Chingford
Epping Forest 015	City of London 001	21	NO	1%		Spitalfields
Epping Forest 015	Enfield 014	19	NO	1%		Brimmsdown
Epping Forest 015	Waltham Forest 015	19	NO	1%		Upper Walthamstow
Epping Forest 015	Redbridge 009	17	NO	1%		South Woodford
Epping Forest 015	Redbridge 002	16	NO	1%		Hainault
Epping Forest 015	Epping Forest 013	15	NO	1%		Debden
Epping Forest 015	Redbridge 006	15	NO	1%		Fairlop
Epping Forest 015	Waltham Forest 007	15	NO	1%		Highams Park
Epping Forest 015	Redbridge 014	14	NO	1%		Wanstead
Epping Forest 015	Havering 017	14	NO	1%		Romford
Epping Forest 015	Redbridge 030	13	NO	1%		Ilford
Epping Forest 015	Epping Forest 006	13	YES	1%	1	Coopersale
Epping Forest 015	Redbridge 005	13	NO	1%		Woodford Bridge
Epping Forest 015	Waltham Forest 006	12	NO	1%		Chingford Mount
Epping Forest 015	Newham 034	12	NO	1%		Canning Town
Epping Forest 015	Redbridge 004	11	NO	1%		Woodford Green
Epping Forest 015	Epping Forest 008	11	YES	1%	3	Waltham Abbey
Epping Forest 015	Newham 033	11	NO	1%		Beckton
Epping Forest 015	Waltham Forest 005	11	NO	1%		Chingford Mount
Epping Forest 015	Newham 037	10	NO	1%		Royal Docks
Epping Forest 015	Waltham Forest 010	10	NO	1%		Hale End
Epping Forest 015	Havering 013	10	NO	1%		Romford
Epping Forest 015	Barking and Dagenham 015	9	NO	1%		Barking
Epping Forest 015	Waltham Forest 001	9	NO	1%		Chingford
Epping Forest 015	Barking and Dagenham 019	9	NO	1%		Barking
Epping Forest 015	Redbridge 015	9	NO	1%		Gants Hill
Epping Forest 015	Redbridge 034	9	NO	1%		Goodmayes
Epping Forest 015	Brentwood 007	9	NO	1%		Brentwood
Epping Forest 015	Waltham Forest 016	9	NO	1%		Walthamstow
Epping Forest 015	Broxbourne 013	9	YES	1%	3	Waltham Cross
Epping Forest 015	Hackney 027	9	NO	1%		Shoreditch
Epping Forest 015	Waltham Forest 022	9	NO	1%		Leyton
Epping Forest 015	Islington 006	8	NO	1%		Highbury
Epping Forest 015	Epping Forest 003	8	NO	1%		Chipping Ongar
Epping Forest 015	Welwyn Hatfield 010	8	YES	1%	2	Hatfield
Epping Forest 015	Waltham Forest 014	8	NO	1%		Higham Hill
Epping Forest 015	Enfield 037	8	NO	1%		Little Russia
Epping Forest 015	Redbridge 023	8	NO	1%		Newbury Park
Epping Forest 015	Enfield 036	7	NO	0%		Palmers Green
Epping Forest 015	Harlow 007	7	YES	0%	1	Harlow
Epping Forest 015	Havering 005	7	NO	0%		Havering Park
Epping Forest 015	Westminster 018	7	NO	0%		Covent Garden
Epping Forest 015	Westminster 020	7	NO	0%		Westminster
Epping Forest 015	Westminster 013	7	NO	0%		Soho
Epping Forest 015	Waltham Forest 026	7	NO	0%		Leyton
Epping Forest 015	Waltham Forest 024	7	NO	0%		Leytonstone
Epping Forest 015	Newham 035	7	NO	0%		Royal Docks
Epping Forest 015	Waltham Forest 011	7	NO	0%		Walthamstow
Epping Forest 015	Islington 022	7	NO	0%		Farringdon
Epping Forest 015	Waltham Forest 013	7	NO	0%		Upper Walthamstow
Epping Forest 015	Newham 013	7	NO	0%		Stratford
Epping Forest 015	Waltham Forest 017	7	NO	0%		Walthamstow
Epping Forest 015	Newham 028	7	NO	0%		Plaistow
Epping Forest 015	Camden 021	6	NO	0%		Camden Town
Epping Forest 015	Barking and Dagenham 006	6	NO	0%		Chadwell Heath
Epping Forest 015	Newham 036	6	NO	0%		Canning Town
Epping Forest 015	Barking and Dagenham 020	6	NO	0%		Dagenham
Epping Forest 015	Enfield 010	6	NO	0%		Worlds End
Epping Forest 015	Enfield 012	6	NO	0%		Ponders End
Epping Forest 015	Redbridge 008	6	NO	0%		Clayhall
Epping Forest 015	Epping Forest 001	6	YES	0%	1	Hastingwood

Total NO 88%
Total YES 12%

Route	Roads in EFSAC Affected	Direction	Totals	Vehicles AADT
1	Epping New Road	North	8%	2
2	Epping New Road / A121	North / West	3%	1
3	Epping New Road / Avey Lane	North / West	1%	0
Total			12%	3

Total 1544 100.00%