LONDON BOROUGH OF RICHMOND UPON THAMES

ELLERAY HALL & NORTH LANE EAST CAR PARK/DEPOT, TEDDINGTON, TW11

BREEAM TRAVEL PLAN

May 2021

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1.0 INTRODUCTION

1.1 Paul Mew Associates is instructed by the London Borough of Richmond upon Thames in relation to the proposed development at Elleray Hall and North Lane East Car Park/Depot, Teddington, TW11.

1.2 The site location is presented on a map in Figure 1 of this report; the site's boundary is displayed on an Ordnance Survey (OS) map base in Appendix A.

Existing Site

1.3 The site comprises of two plots of land accessed from Elleray Road (Elleray Hall) and North Lane (North Lane East car park/depot), which are both situated within a short walking distance of Teddington town centre. A parade of local shops, amenities and services are located along the A313 Broad Street, which is connected to the northern ends of Elleray Road and North Lane.

1.4 North Lane East car park/depot is a vacant depot and a car park, which is currently in use. Elleray Hall currently comprises of a local community centre (Use Class: D1, 510.5sqm GIA, 540sqm GEA) with an informal parking area provided to the west of the building with capacity for around one minibus and five cars.

The Proposals

1.5 The proposals seek the construction of a new community centre (Use Class: D1 / F2 (b), 519sqm GIA, 587sqm GEA) with on-site parking facilities (comprising of four standard parking bays, one designated blue badge bay and one minibus bay) at North Lane East car park/depot. Vehicle access to the new community centre will be provided from a re-positioned access onto North Lane, whilst pedestrian access will be served from the pedestrian only section of Middle Lane.

1.6 The expected opening hours for the proposed community centre will be 09:00hrs-22:00hrs Monday to Saturday and 10:00hrs-15:30hrs on Sundays. It's proposed that three Full-Time Equivalent (FTE) staff will be employed at the community centre.

1.7 A residential development of 16 affordable flats (comprising of 14 one-bedroom (two person) and two two-bedroom units) is also proposed with one on-site blue badge parking bay (0.06 spaces per dwelling), which will replace the existing Elleray Hall. Two of the one-bedroom units shall also be wheelchair accessible. Vehicle access to the site will be provided from a new dropped-kerb crossover onto Elleray Road, whilst pedestrian access will be served from the pedestrian only section of Middle Lane and Elleray Road for Plot 1 only.

1.8 Active electric vehicle charging facilities will be provided for one of the standard parking spaces at the proposed community centre and the residential development's blue badge space. Passive provision will be provided for the remaining parking spaces.

1.9 In terms of cycle parking for the residential development, 26 secure and sheltered long-stay cycle parking spaces (comprising of 20 vertical spaces, four standard Sheffield spaces and two larger Sheffield spaces) will be provided for the development within two communal cycle stores at ground level. Short-stay cycle parking will also be provided in accordance with London Plan requirements.

1.10 A total of two long-stay and six short-stay cycle parking spaces will also be provided for the proposed community centre in the form of three bike lockers and three Sheffield stands respectively.

1.11 The schedule of accommodation and proposed site plan are presented in Appendix B of this report.

1.12 This report comprises of a BREEAM compliant Travel Plan for the proposed development, for the purpose of achieving two credits under Tra 01 for BREEAM 'New Construction 2018'. The chief aim of a BREEAM Travel Plan is set out as follows:

> *"...Following a transport assessment (in accordance with the requirements set out in criteria 2), develop a site-specific travel plan that provides a long-term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation."*

1.13 This Travel Plan has been developed as part of the pre-occupation stage considering all types of travel relevant to the site. This Travel Plan is primarily aimed at staff, residents and visitors of the developments and is specific to meet the site's needs including disabled access, public transport and facilities for cyclists and walkers.

1.14 The measures and initiatives described in this Travel Plan will be introduced when the site becomes fully operational. This Travel Plan is expected to be secured by the Council as a condition of any future planning permission.

1.15 The prime motivation of setting up the plan is to promote a range of measures that will help to reduce journeys made as the single occupant of a private vehicle and encourage an increase in the use of sustainable travel such as walking, cycling, and public transport. The successful implementation of the plan will have a range of benefits including:

- Better health of residents and staff;
- Informed choice on travel alternatives;
- Reduced cost/time savings associated with travelling to work;
- Reduction of potential car parking pressure;
- Improvement of the environmental image of the community centre operator; and
- Reduction in traffic on the local highway network.

1.16 It is likely that a high percentage of staff and visitors to the new community centre will be drawn from the local catchment area and will walk, cycle or use public transport to access the site. From this perspective the site and the proposed development is considered to be sustainable.

2.0 TRAVEL PLANS IN A POLICY CONTEXT

2.1 The main planning policy document which provided a context for sustainable transport is the National Planning Policy Framework (NPPF) which was first published in March 2012 and was most recently updated in June 2019. The NPPF sets out key sustainable transport objectives.

2.2 Chapter 9 of the NPPF relates to promotion of sustainable transport. For ease of reference the relevant extracts have been copied herein:

> *"102. Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*
>
> *a) the potential impacts of development on transport networks can be addressed;*
> *b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
> *c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
> *d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
> *e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."*
>
> *"105. If setting local parking standards for residential and non-residential development, policies should take into account:*
>
> *f) the accessibility of the development;*
> *g) the type, mix and use of development;*
> *h) the availability of and opportunities for public transport*
> *i) local car ownership levels; and*
> *j) the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.*

Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- *accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of people with disabilities by all modes of transport".*

2.3 Transport for London's (TfL) Travel Planning Guidance (November 2013) offers guidance on the content of Travel Plans. Table 2.1 of TfL's Travel Planning Guidance (November 2013) document provides a development scale guideline for Travel Plans. Under use class C3 (residential) all schemes with between 50 and 80 residential units requires a Travel Plan Statement which is a simpler version of a Full Travel Plan, and all developments of 80 or more residential dwellings requires a Full Travel Plan. There are no scale guidelines provided for D1 community centre uses.

2.4 The residential development of 16 flats falls below the threshold where a full Travel Plan is usually required. However, in this instance the Local Planning Authority has requested a Travel Plan be submitted with the planning application and ultimately secured as a condition of any future planning permission.

2.5 A summary from TfL's Travel Planning Guidance November 2013 document is extracted as follows:

*"**Full Travel Plan***

Applicants for developments at or above the strategic-level thresholds shown in Figure 2.1 must by default submit an ATTrBuTE-compliant (see section 3) Full Travel Plan which should include the content set out in section 3.

Travel Plan Statement

Smaller developments that fall below the strategic-level Full Travel Plan threshold but which typically employ 20 or more staff, or comprise over 50 residential units, should submit a Travel Plan Statement. It may not be appropriate to set specific targets within these plans. However, a set of positive measures promoting sustainable transport should be included, together with an action plan for their implementation. The level of information required should be agreed with the local authority planning officer at the earliest opportunity."

"3. What should the travel plan contain?

The overarching purpose of any travel plan should be to influence behaviour change and lead to use of more sustainable modes of travel and/or to reduce overall travel to/from the site. This is critical for new developments in order to facilitate the use of sustainable modes among occupiers and visitors from the outset, or to mitigate the impact of trips generated by the site. Therefore, when preparing travel plans, their authors and local authority officers should consider the overarching purpose of the particular travel plan. Whilst the travel plan should be developed as a standalone document, it should aim to address any issues identified within the associated transport assessment (TA) for the development through the promotion of sustainable transport."

2.6 At the local level, Richmond Council adopted its new Local Plan for the borough in July 2018, which replaces previous policies within the Core Strategy and Development Management Plan. The Plan sets out policies and guidance for the development of the borough over the next 15 years.

2.7 Policy LP 44 – Sustainable Travel Choices of the Council's adopted Local Plan sets out transport policy context relevant to this assessment. Relevant paragraphs of Policy LP 44 are set out as follows for ease of reference:

"A. Location of development

Encourage high trip generating development to be located in areas with good public transport with sufficient capacity, or which are capable of supporting improvements to provide good public transport accessibility and capacity, taking account of local character and context.

B. Walking and cycling

Ensure that new development is designed to maximise permeability within and to the immediate vicinity of the development site through the provision of safe and convenient walking and cycling routes, and to provide opportunities for walking and cycling, including through the provision of links and enhancements to existing networks.

C. Public transport

Ensure that major new developments maximise opportunities to provide safe and convenient access to public transport services. Proposals will be expected to support improvements to existing services and infrastructure where no capacity currently exists or is planned to be provided. Protect existing public transport interchange facilities unless suitable alternative facilities can be provided which ensure the maintenance of the existing public transport operations. Applications will need to include details setting out how such re-provision will be secured and provided in a timely manner.

D. The road network

Ensure that new development does not have a severe impact on the operation, safety or accessibility to the local or strategic highway networks. Any impacts on the local or strategic highway networks, arising from the development itself or the cumulative effects of development, including in relation to on-street parking, should be mitigated through the provision of, or contributions towards, necessary and relevant transport improvements. In assessing planning applications, the cumulative impacts of development on the transport network will be taken into account. Planning applications will need to be supported by the provision of a Transport Assessment if it is a major development, and a Transport Statement if it is a minor development.

2.8 The following section outlines this Travel Plans operation, objectives, monitoring, action plan and funding.

3.0 SITE ACCESSIBILITY

Local Amenities

3.1 As previously noted, both plots are situated within a short walking distance to the south of a parade of local shops, amenities and services on the A313 Broad Street.

3.2 The closest amenities in proximity to the site on Broad Street include a Tesco Metro, Halifax bank, pharmacy and a number of restaurants/cafes.

3.3 As per Table 7.1 of BREEAM Tra 01, the number and type of existing accessible amenities within 500 metres of the site have been detailed in Table 1 below:

Table 1: Amenities in Proximity to The Site

Type of Amenity	Count
Appropriate food outlet	2
Access to cash	2
Access to an outdoor open space (public or private, suitably sized and accessible to building users)	1
Access to a recreation or leisure facility for fitness or sports	1
Publicly available postal facility	1
Community facility	3
Over the counter services associated with a pharmacy	2
Public sector GP surgery or general medical centre	2
Childcare facility or school	3

3.4 The location of nearby shops and amenities is displayed in Figure 2 of this report.

Public Transport

3.5 In terms of public transport, in order to demonstrate the accessibility attributes of the application site in the context of its surroundings, an accessibility audit and a public transport accessibility level (PTAL) assessment have been undertaken.

3.6 The PTAL system, widely used by local authorities and the Greater London Authority (GLA), assigns a 'score' to any given location based on the level of public transport accessible from the site within reasonable walk distances and wait times.

3.7 TfL provides an online GIS-based PTAL tool. The GIS-based PTAL tool uses spatial data such as point data files (e.g. bus stops) and vector files (e.g. walking network) to give a specific point of interest's PTAL score.

3.8 TfL's PTAL tool has calculated the site have a PTAI score of 13.47 and a corresponding PTAL score of 3 which is a 'moderate' level of public transport service availability as defined by TfL.

3.9 As noted within Tra 01, TfL's PTAL tool can be "used as evidence of compliance for the assessed building," when calculating the public transport accessibility level for the BREEAM assessment. As such, the PTAI of 13.47 has been applied to this BREEAM assessment in order to determine how points are required to achieve a certain level of credits in Tra 02.

3.10 The PTAL Output File is presented in Appendix C. TfL's PTAL table is extracted as follows:

Table 3 Public Transport Accessibility Levels

PTAL	Range of Index	Map Colour	Description
1a (Low)	0.01 – 2.50		Very poor
1b	2.51 – 5.00		Very poor
2	5.01 – 10.00		Poor
3	10.01 – 15.00		Moderate
4	15.01 – 20.00		Good
5	20.01 – 25.00		Very Good
6a	25.01 – 40.00		Excellent
6b (High)	40.01 +		Excellent

3.11 A total of six different bus services with high hourly service frequencies can be accessed from stops in close proximity to the site. The closest bus stops to the site are situated on Broad Street, within a 190 and 150 metres walking distance of North Lane East car park/depot and Elleray Hall respectively. These stops serve access to bus routes 481, X26, 281, 285, 33 and R68.

3.12 Teddington rail station is located within a 500 metres walking distance of both plots to the east on Victoria Road and is managed by South Western Railway. Services from Teddington station include trains to London Waterloo (via Kingston or Richmond) and Shepperton, which stops at popular destinations such as Clapham Junction, Vauxhall, Wimbledon and Barnes.

3.13 Refer to Figure 2 for the locations of the nearby bus stops and stations.

Cycling & Pedestrian Accessibility

3.14 The pedestrian footways surrounding both plots are sufficiently wide, well-lit, and in a moderate state of repair. The walk routes from the site to local amenities and public transport access points are straightforward as can be seen from the site location map in Figure 2 of this report.

3.15 In terms of pedestrian infrastructure for those with disabilities including visual impairment and wheelchair access, there are limited crossing facilities along Elleray Road and North Lane in the form of dropped-kerbs. At the priority give-way junctions between North Lane / Broad Street and Elleray Road / Broad Street, informal pedestrian crossing facilities are provided in the form of dropped-kerbs with tactile paving. Pelican crossing facilities are also provided along Broad Street.

3.16 Cycling will be encouraged through the provision of appropriate cycle facilities as discussed later in this report. Secure and sheltered cycle parking will be provided for the development in accordance with local and regional policy guidelines.

3.17 From reviewing TfL's cycle route map (https://tfl.gov.uk/maps/cycle), the site is not located within close proximity of any Cycle Superhighway or Quietway routes. However, it should be noted that a number of off-street cycle paths are accessible within Bushy Park located to the south of the site.

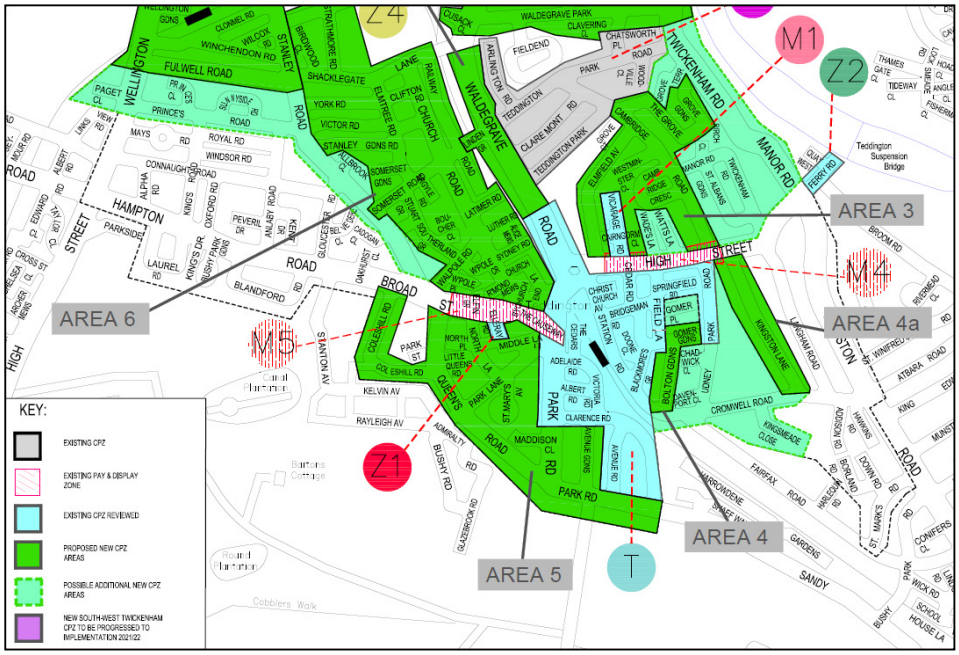
3.18 The site is outside of the catchment area for TfL's cycle hire scheme.

Vehicle Access

3.19 Elleray Road and North Lane are both oriented in a northerly to southerly direction, connecting with the A313 Broad Street to the north at priority give-way junctions.

3.20 Both plots are well connected to the wider highway network, with Elleray Road and North Lane connecting with the A313 Broad Street to the north at priority give-way junctions.

3.21 As previously noted, the roads adjoining Elleray Hall are situated within CPZ 'Z1', which operates from Monday to Sunday (including bank holidays), 08:30hrs-22:00hrs. A new CPZ 'Area 5' is also proposed on North Lane and the surrounding streets. Further consultation regarding the operational hours and design of the new CPZ is expected to take place in May 2021. The proposed CPZ map has been extracted below for ease of reference:



3.22 In terms of public car parks within the local area, part of the proposed site is currently operational as North Lane East car park, which provides parking for up to 25 vehicles during the hours of 8am to 6:30pm, Monday to Friday (maximum stay of three hours during operation). The car park is free to park in on Sundays and bank holidays.

3.23 Opposite to North Lane East car park is North Lane West car park, which provides parking for up to 82 vehicles also during the hours of 8am to 6:30pm, Monday to Friday (maximum stay of three hours during operation). The car park is free to park in on Sundays and bank holidays. As detailed later in this report, parking in both car parks is thought to be unrestricted outside operational hours for both car parks.

4.0 TRIP GENERATION FORECASTS

4.1 In order to gauge the traffic impact of the proposal, trip generation estimates have been carried out for the site's extant uses and proposed uses, the net change in trips accessing the site would therefore represent the traffic impact of the development on the adjoining highway.

4.2 As previously explained, North Lane East car park/depot currently comprises of a vacant depot and a car park, which is currently in use. Elleray Hall currently comprises of a local community centre (Use Class: D1, 510.5sqm GIA, 540sqm GEA) with an informal parking area provided to the west of the building with capacity for around one minibus and five cars.

4.3 The proposals seek the construction of a new community centre (Use Class: D1 / F2 (b), 519sqm GIA, 587sqm GEA) with on-site parking facilities (comprising of four standard parking bays, one designated blue badge bay and one minibus bay) at North Lane East car park/depot. A residential development of 16 affordable flats (comprising of 14 one-bedroom (two person) and two two-bedroom units) is also proposed with one on-site blue badge parking bay (0.06 spaces per dwelling), which will replace the existing Elleray Hall.

Trip Generation – Existing Community Centre

4.4 In order to demonstrate the likely multi-modal trip movements associated with the existing community centre 'Elleray Hall' (Use Class: D1, 510.5sqm GIA, 540sqm GEA), the industry standard TRICS (Trip Rate Information Computer System) database has been consulted. Only sites with '07 - Leisure, Q - Community Centre' uses such as Elleray Hall and similar levels of parking provision and access to local amenities have been applied to this assessment, in order to accurately depict the existing situation.

4.5 One comparable site has been selected for this study, details of which are summarised as follows and presented in full in Appendix D of this report. The TRICS database presents trip rates per 100sqm of gross floor area, which is the equivalent of GIA;

- TRICS code ST-07-Q-01: Community Centre, Wolverhampton, 2,329sqm.

4.6 Due to the limited number of TRICS survey sites available for the community centre land use, a survey site situated within London could not be applied to this assessment. As such, it's expected that the chosen TRICS site in Wolverhampton will project a higher reliance on travel by car than the existing Elleray Hall.

4.7 Table 2 illustrates the TRICS derived vehicle trip rate per 100sqm and the trips associated with the existing 510.5sqm community centre use.

Table 2. TRICS Vehicle Trips for the Existing Community Centre

Time Period	TRICS Vehicle Trip Rate Per 100sqm			Existing 510.5sqm Community Centre		
	Arr.	Dep.	Tot.	Arr.	Dep.	Tot.
08:00-09:00	0.56	0.04	0.60	3	0	3
09:00-10:00	0.39	0.22	0.60	2	1	3
10:00-11:00	0.69	0.73	1.42	4	4	7
11:00-12:00	0.60	0.60	1.20	3	3	6
12:00-13:00	0.56	0.60	1.16	3	3	6
13:00-14:00	0.52	0.60	1.12	3	3	6
14:00-15:00	0.34	0.77	1.12	2	4	6
15:00-16:00	0.26	0.30	0.56	1	2	3
16:00-17:00	0.39	0.26	0.64	2	1	3
17:00-18:00	0.17	0.30	0.47	1	2	2
18:00-19:00	0.26	0.13	0.39	1	1	2
19:00-20:00	0.00	0.00	0.00	0	0	0
20:00-21:00	0.00	0.00	0.00	0	0	0
21:00-22:00	0.00	0.00	0.00	0	0	0
Total	**4.72**	**4.55**	**9.28**	**24**	**23**	**47**

NB: Minor arithmetic errors are due to rounding

Source: TRICS 7.7.4

4.8 As is shown in Table 2 the existing 510.5sqm community centre use can be expected to generate in the order of 47 vehicle trips in and out of the site over the course of a typical weekday comprising of 24 arrivals and 23 departures. During AM (10:00hrs-11:00hrs) and PM (12:00hrs-13:00hrs) peak periods for vehicle trips, seven and six two-way vehicle trips respectively are expected at the site.

4.9 Morning, evening and daily (10:00hrs-11:00hrs, 12:00hrs-13:00hrs, and 08:00hrs-22:00hrs respectively) multi-modal trips projections based on TRICS derived data for the existing community centre are set out in Table 3.

Table 3. TRICS Multi-Modal Trip Generation Projections – Proposed Community Centre

Mode of Travel	AM Peak 1000-1100		PM Peak 1200-1300		Daily 0800-2200	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
Underground	0	0	0	0	0	0
Train	0	0	0	0	0	0
Bus, minibus, coach	0	0	0	0	0	0
Vehicles	4	4	3	3	24	23
Vehicle Passenger	1	1	0	0	4	5
Bicycle	0	0	0	0	0	0
On-foot	7	4	7	8	38	36
Other	0	0	0	0	0	0
Total	**11**	**9**	**10**	**11**	**66**	**64**

Source: TRICS 7.7.4
Note: minor arithmetic errors are due to rounding

4.10 As is shown in Table 3 the existing 510.5sqm community centre use can be expected to generate in the order of 130 total trips in and out of the site over the course of a typical weekday comprising of 66 arrivals and 64 departures. Notably, around 56.9% of daily two-way trips were on foot and 36.1% of two-way trips were carried out by car or other motorised vehicles.

Trip Generation – Proposed Community Centre

4.11 As previously noted, North Lane East car park/depot will be converted into a new community centre (Use Class: D1), providing 519sqm of floor space (GIA). Given that the proposed community centre will be situated in a similarly accessible location to Elleray Hall with on-site parking facilities, the same TRICS survey site has been applied to predict the trip generation projections associated with the proposed community centre.

4.12 Table 4 illustrates the TRICS derived vehicle trip rate per 100sqm and the trips associated with the proposed 519sqm community centre use.

Table 4. TRICS Vehicle Trips for the Proposed Community Centre

Time Period	TRICS Vehicle Trip Rate Per 100sqm			Proposed 519sqm Community Centre		
	Arr.	Dep.	Tot.	Arr.	Dep.	Tot.
08:00-09:00	0.56	0.04	0.60	3	0	3
09:00-10:00	0.39	0.22	0.60	2	1	3
10:00-11:00	0.69	0.73	1.42	4	4	7
11:00-12:00	0.60	0.60	1.20	3	3	6
12:00-13:00	0.56	0.60	1.16	3	3	6
13:00-14:00	0.52	0.60	1.12	3	3	6
14:00-15:00	0.34	0.77	1.12	2	4	6
15:00-16:00	0.26	0.30	0.56	1	2	3
16:00-17:00	0.39	0.26	0.64	2	1	3
17:00-18:00	0.17	0.30	0.47	1	2	2
18:00-19:00	0.26	0.13	0.39	1	1	2
19:00-20:00	0.00	0.00	0.00	0	0	0
20:00-21:00	0.00	0.00	0.00	0	0	0
21:00-22:00	0.00	0.00	0.00	0	0	0
Total	**4.72**	**4.55**	**9.28**	**25**	**24**	**48**

NB: Minor arithmetic errors are due to rounding

Source: TRICS 7.7.4

4.13 As is shown in Table 4 the proposed community centre can be expected to generate in the order of 48 vehicle trips in and out of the site over the course of a typical weekday comprising of 25 arrivals and 24 departures. During AM (10:00hrs-11:00hrs) and PM (12:00hrs-13:00hrs) peak periods for vehicle trips, eight and six two-way vehicle trips respectively are expected at the site.

4.14 Morning, evening and daily (10:00hrs-11:00hrs, 12:00hrs-13:00hrs, and 08:00hrs-22:00hrs respectively) multi-modal trips projections based on TRICS derived data for the proposed community centre are set out in Table 5.

Table 5. TRICS Multi-Modal Trip Generation Projections – Proposed Community Centre

Mode of Travel	AM Peak 1000-1100		PM Peak 1200-1300		Daily 0800-2200	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
Underground	0	0	0	0	0	0
Train	0	0	0	0	0	0
Bus, minibus, coach	0	0	0	0	0	0
Vehicles	4	4	3	3	25	24
Vehicle Passenger	1	1	0	0	4	5
Bicycle	0	0	0	0	0	0
On-foot	7	4	7	8	39	36
Other	0	0	0	0	0	0
Total	**11**	**10**	**10**	**11**	**67**	**65**

Source: TRICS 7.7.4
Note: minor arithmetic errors are due to rounding

4.15 As is shown in Table 5 the proposed community centre can be expected to generate in the order of 132 total trips in and out of the site over the course of a typical weekday comprising of 67 arrivals and 65 departures. Notably, around 56.6% of two-way daily trips are expected to be by public transport, whilst around 36.0% of two-way trips are likely to be by car.

Trip Generation – Proposed 16 Dwellings

4.16 As stated previously, a residential development of 16 affordable flats is proposed with one on-site blue badge parking bay (0.06 spaces per dwelling), which will replace the existing Elleray Hall.

4.17 For the C3 'Dwelling Flats' land use, multi-modal surveys within the 03-Residential, C–Flats Privately Owned TRICS dataset have been examined. To filter further, only sites which have similar parking ratios to the proposed development and location characteristics have been selected e.g. access to public transport and local amenities. Details of the chosen TRICS sites are summarised as follows and presented in full in Appendix E of this report.

- TRICS code M-03-C-02: Glenthorne Road, Hammersmith, 194 dwellings (0.273 parking spaces per dwelling); and
- TRICS code IS-03-C-04: City Road, Islington, 157 dwellings (0.268 parking spaces per dwelling).

4.18 It should also be noted that both of the chosen TRICS survey sites are situated within controlled parking zones.

4.19 A vehicle trip rate per dwelling and a non-vehicular trip rate per dwelling have been derived from the TRICS database. The non-vehicular trips are distributed by mode, based on the resident population 2011 Travel to Work Census data for the Middle Layer Super Output Area (MSOA) of Richmond Upon Thames 021, in which the site is located.

4.20 Table 6 illustrates the TRICS derived vehicle trip rate per dwelling and the vehicular trips associated with the proposed 16 residential flats.

Table 6. TRICS Vehicle Trips for Proposed 16 Residential Flats

Time Period	TRICS Vehicle Trip Rate Per Dwelling			Proposed 16 Residential Flats		
	Arr.	Dep.	Tot.	Arr.	Dep.	Tot.
07:00-08:00	0.02	0.03	0.06	0	1	1
08:00-09:00	0.02	0.02	0.04	0	0	1
09:00-10:00	0.03	0.03	0.05	0	0	1
10:00-11:00	0.03	0.02	0.05	0	0	1
11:00-12:00	0.03	0.03	0.06	0	0	1
12:00-13:00	0.01	0.02	0.03	0	0	0
13:00-14:00	0.03	0.04	0.07	0	1	1
14:00-15:00	0.01	0.01	0.02	0	0	0
15:00-16:00	0.02	0.02	0.04	0	0	1
16:00-17:00	0.05	0.03	0.08	1	1	1
17:00-18:00	0.03	0.01	0.04	0	0	1
18:00-19:00	0.04	0.03	0.07	1	0	1
19:00-20:00	0.03	0.03	0.06	0	0	1
20:00-21:00	0.01	0.01	0.03	0	0	0
Total	**0.35**	**0.34**	**0.69**	**6**	**5**	**11**

NB: Minor arithmetic errors are due to rounding
Source: TRICS 7.7.4

4.21 As is shown in Table 6, the proposed 16 residential flats can be expected to generate in the order of 11 total two-way vehicle trips to/from the site over the course of a typical weekday comprising of six arrivals and five departures. The level of vehicle activity is consistently low throughout the day.

4.22 The low level of vehicular traffic projected for the proposed flats is likely accounted to the limited parking provided for the TRICS survey sites and presence of local CPZ's potentially restricting local residents from applying for parking permits and therefore owning a vehicle. These are both parking conditions that reflect the proposed development.

4.23 Table 7 illustrates the TRICS derived non-vehicle trip rate per dwelling and the non-vehicular trips associated with the proposed 16 residential flats.

Table 7. TRICS Non-Vehicle Trips for Proposed 16 Residential Flats

Time Period	TRICS Non-Veh Trip Rate Per Dwelling			Proposed 16 Residential Flats		
	Arr.	Dep.	Tot.	Arr.	Dep.	Tot.
07:00-08:00	0.04	0.22	0.26	1	4	4
08:00-09:00	0.04	0.33	0.37	1	5	6
09:00-10:00	0.04	0.11	0.15	1	2	2
10:00-11:00	0.09	0.10	0.19	1	2	3
11:00-12:00	0.06	0.11	0.17	1	2	3
12:00-13:00	0.06	0.09	0.14	1	1	2
13:00-14:00	0.07	0.08	0.15	1	1	2
14:00-15:00	0.07	0.08	0.15	1	1	2
15:00-16:00	0.08	0.06	0.15	1	1	2
16:00-17:00	0.13	0.09	0.22	2	1	3
17:00-18:00	0.15	0.07	0.21	2	1	3
18:00-19:00	0.29	0.11	0.40	5	2	6
19:00-20:00	0.15	0.07	0.22	2	1	4
20:00-21:00	0.11	0.09	0.21	2	1	3
Total	**1.37**	**1.61**	**2.98**	**22**	**26**	**48**

NB: Minor arithmetic errors are due to rounding
Source: TRICS 7.7.4

4.24 As is shown in Table 7, the proposed 16 residential flats can be expected to generate in the order of 48 total two-way non-vehicle trips to the site over the course of a typical weekday comprising of 22 arrivals and 26 departures.

4.25 In order to further disaggregate the 'non-vehicle' trips in Table 7, method of travel to work census data has been obtained for the MSOA adjoining the site. This comprises of the dwellings immediately adjacent to the site (mean of 7,200 people) and thus accurately reflects current travel trends of residents in the locality.

4.26 Census data (2011) for main method for travel to work for the resident population for the MSOA of Richmond upon Thames 021 is shown in Table 8. Vehicular trips have been removed from the dataset and have been proportionately redistributed amongst the non-vehicular modes.

Table 8. Method of Travel to Work; Resident Population (Redistributed)

Method of Travel to Work (2011)	Resident Population (Richmond upon Thames 021)		Redistributed Driver Car/Van	
	Raw Data	Modal Split	Raw Data	Modal Split
Underground	139	4%	220	6%
Train	1,117	31%	1770	49%
Bus	328	9%	520	14%
Taxi	6	0%	-	-
Motorcycle	46	1%	-	-
Driving a car or van	1,271	35%	-	-
Passenger in a car or van	52	1%	82	2%
Bicycle	198	6%	314	9%
On foot	405	11%	642	18%
Other method of travel	25	1%	40	1%
Total	**3,587**	**100%**	**3,587**	**100%**

Source: Office for National Statistics

4.27 Morning, evening and daily (08:00hrs-09:00hrs, 18:00hrs-19:00hrs, and 07:00hrs-19:00hrs respectively) all non-vehicle modal trips projections based on the TRICS data in Table 7 and the resident method of travel to work data in Table 8 for the proposed residential flats are set out in Table 9.

Table 9. TRICS Non-Vehicle Trip Generation Projections by Mode

Mode of Travel	Adjusted Modal Split	AM Peak 0800-0900		PM Peak 1800-1900		Daily 0700-2100	
		Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
Underground	6%	0	0	0	0	1	2
Train	49%	0	3	2	1	11	13
Bus, minibus, coach	14%	0	1	1	0	3	4
Taxi	-	-	-	-	-	-	-
Motorcycle or scooter	-	-	-	-	-	-	-
Driving a car or a van	-	-	-	-	-	-	-
Pass. in a car or a van	2%	0	0	0	0	1	1
Bicycle	9%	0	0	0	0	2	2
On-foot	18%	0	1	1	0	4	5
Other	1%	0	0	0	0	0	0
Total	**100%**	**1**	**5**	**5**	**2**	**22**	**26**

Source: ONS/TRICS
Note: minor arithmetic errors are due to rounding

4.28 Table 9 above indicates that the proposed 16 residential flats are expected to generate nine two-way trips by foot, four two-way trips by bike and 33 two-way trips by public transport on a typical weekday.

Traffic Impact

4.29 In order to predict the traffic impact of the proposals, the projected increase/decrease in total and vehicle trips has calculated from TRICS derived data and is presented in Table 10 below.

Table 10. TRICS Projected Total & Vehicle Trips Increase/Decrease

Time Period	Proposed Increase – Total Trips			Proposed Increase – Vehicle Trips		
	Arr.	Dep.	Tot.	Arr.	Dep.	Tot.
07:00-08:00	1	4	5	0	1	1
08:00-09:00	1	6	7	0	0	1
09:00-10:00	1	2	3	0	0	1
10:00-11:00	2	2	4	0	0	1
11:00-12:00	1	2	4	0	1	1
12:00-13:00	1	2	3	0	0	1
13:00-14:00	2	2	4	0	1	1
14:00-15:00	1	2	3	0	0	0
15:00-16:00	2	1	3	0	0	1
16:00-17:00	3	2	5	1	1	1
17:00-18:00	3	1	4	0	0	1
18:00-19:00	5	2	8	1	0	1
19:00-20:00	3	2	5	0	0	1
20:00-21:00	2	2	4	0	0	0
21:00-22:00	0	0	0	0	0	0
Total	**29**	**32**	**61**	**6**	**6**	**12**

NB: Minor arithmetic errors are due to rounding

Source: TRICS 7.7.4

4.30 The proposals are predicted to result in an increase in 61 total two-way trips over the course of a typical weekday comprising of 29 arrivals and 32 departures. The morning and evening peak periods associated with the increase in total trips are 08:00hrs-09:00hrs and 18:00-19:00hrs where an increase in seven and eight two-way trips respectively are projected.

4.31 The proposals are also predicted to result in 12 additional two-way vehicle trips over the course of a typical weekday. During the morning (08:00hrs-09:00hrs) and evening (18:00-19:00hrs) peak periods, the proposed development is forecast to generate one additional two-way vehicle trip.

4.32 As previously noted, the low level of vehicular traffic projected for the proposed 16 flats is likely accounted to the limited parking provided for the TRICS survey sites and presence of local CPZ's potentially restricting local residents from applying for parking permits and therefore owning a vehicle. These are both parking conditions that reflect the proposed development. As such, trips by future residents are likely to be made by sustainable modes.

4.33 In addition, there is a minimal change in scale from the existing Elleray Hall to the proposed community (from 510.5sqm to 519sqm GIA), thereby resulting in a similar level of traffic in the local area, albeit re-distributed to North Lane rather than Elleray Road.

4.34 It is therefore anticipated that there will be a minimal and insignificant impact on the adjoining highway and that the vehicle trips generated by the development will likely fall within daily/weekly fluctuations in vehicle flows on North Lane and Elleray Road.

4.35 The projected increase/decrease in multi-modal trips as a result of the proposals has also been calculated from TRICS derived data and is presented in Table 11 below.

Table 11. TRICS Projected Multi-Modal Trips Increase/Decrease

Mode of Travel	Daily 0700-2200		
	Arr.	Dep.	Total
Underground	1	2	3
Train	11	13	24
Bus, minibus, coach	3	4	7
Vehicles	6	6	12
Vehicle Passenger	1	1	1
Bicycle	2	2	4
On-foot	5	5	10
Other	0	0	1
Total	**29**	**32**	**61**

Source: TRICS 7.7.4
Note: minor arithmetic errors are due to rounding

4.36 As shown in Table 11, there is projected to be a minor increase in the volume of public transport users, pedestrians and cyclists in the local area as a result of the proposed development.

4.37 In summary, the traffic impact of the development is expected to be adequately accommodated on the adjoining highway and within the extant available capacity on existing public transport infrastructure adjoining the site.

5.0 TRAVEL PLAN OBJECTIVES, TARGETS & MONITORING

Objectives

5.1 The chief aim of this Travel Plan is to achieve minimal use of the private car, especially single occupancy vehicle trips, from the outset of the redeveloped site being occupied. Residents, staff and visitors will be targeted and thereafter during the lifetime of the plan minimal car use will be the primary aim for the Travel Plan.

5.2 As is set out in the introduction, it is likely that a high percentage of staff and visitors to the new community centre will be drawn from the local catchment therefore a low percentage of single occupancy vehicle trips amongst future staff and visitors is considered to be a reasonable and realistic objective.

5.3 A secondary objective of this Travel Plan will be to encourage staff and residents to walk or cycle as their main mode of travel, as these are completely 'carbon-free' modes of transportation.

5.4 It is recognised that there is the potential to influence visitor travel behaviour to a degree. The measures aimed at visitors are directed towards increasing awareness of alternatives to private car use.

5.5 It is considered that, given that the site has good transport links and is well located to local amenities there is scope to influence the travel decisions of visitors.

5.6 The Travel Plan objectives will primarily be achieved by promoting and educating the health, social, economic and environmental benefits of sustainable travel choices from the outset of the development being brought into use.

Targets & Monitoring

5.7 The Travel Plan modal shift targets will be formulated once data from the post occupancy baseline travel mode survey has been analysed. The targets will be SMART (specific, measurable, achievable, realistic and time-bound).

- Specific - the targets will aim to specifically (not exclusively) promote walking and cycling to residents and staff living within a reasonable distance of the community centre and, to an extent, visitors. Those that can combine public transport travel will be actively encouraged. The targets will be set by using the results of the initial travel mode surveys.

- Measurable - the targets would be measurable, based on the results of the initial post-development travel mode surveys and review surveys to be performed at key intervals during the course of the Travel Plan lifespan.

- Achievable and realistic - the targets would be achievable and not overbearing, again based upon the results of the travel mode surveys.

- Time-bound - the travel plan will have a five-year timeframe, with surveys and targets required at yearly intervals. Thereafter the site will continue to observe the general aims and objectives of the Travel Plan.

5.8 Travel Plans should be considered to be evolving documents. They should remain adaptable to changing personnel, working practices and local conditions, therefore the plan targets will be set annually for five years after full occupation of each development. These targets however, will be reviewed to track progress and to enable amendments if necessary.

5.9 It is noted that development of the site will be carried out in two phases with phase 1 comprising of the demolition of North Lane east car park/depot, construction of the new community centre and demolition of the existing Elleray Hall. In phase 2 the proposed residential development will be built in place of the demolished Elleray Hall. As such, the expected occupation dates for the proposed community centre and residential development are February 2023 and February 2024 respectively.

5.10 Separate travel mode targets for each development will be set by the Travel Plan Coordinator following each Travel Plan survey. The first Travel Plan survey for each site will be undertaken within three months following full occupation or operation, and thereafter at 12-month intervals for five years.

5.11 The initial TP mode shift targets for residents and staff are set out as follows:

- To decrease the number of car driver trips by 5% within 1 year of occupation, by a further 2% within 3 years of occupation and by a further 2% within 5 years of occupation,
- To increase the number of walking trips as a main mode of travel by 5% within 1 year of occupation,
- To continually monitor the usage of on-site cycle parking facilities and increase the provision as soon as it is close to being used to capacity,
- Consolidate the site's delivery and servicing operations as much as possible, with an overall target of reducing the total number of delivery and servicing related trips by 10% from baseline levels over the lifetime of the plan.

5.12 As per BREEAM requirement set out in 'Tra 02', the initiatives and measures outlined within this Travel Plan will be tailored to meet the requirements of residents, staff and visitors further to the results of the baseline travel surveys.

5.13 The TP will be continually monitored through resident, staff and visitor travel surveys. A TRICS SAM (Trip Rate Information Computer System, Standard Assessment Methodology) compliant travel survey will be carried out for each development within three months of full occupation/operation.

5.14 The surveys would be organised and carried out by the TPC with the full support of site's management staff.

5.15 It would also be the responsibility of the TPC to collate and send the results of the post-occupancy baseline surveys to Richmond Council for review as part of the ongoing TP, and to discuss and agree future SMART modal shift targets with the Council's Travel Plan Officer.

5.16 Thereafter at yearly intervals for a 5-year timeframe the TPC will prepare a TP Monitoring Report for each development to be submitted to the Council. The Monitoring Reports will form the basis of the TP's review and will include updated TRICS SAM compliant resident, staff and visitor travel surveys and car/cycle parking survey information.

5.17 The TP Monitoring Reports shall contain information detailing how the measures have been implemented, comments on whether or not the agreed targets are being met, relevant recommendations on improvements and copies of all literature produced prior to the date of the report designed to encourage residents, staff and visitors to travel to and from the site using non-vehicular means of travel and/or public transport.

6.0 TRAVEL PLAN MEASURES

Travel Plan Coordinator

6.1 The measures to be outlined in this Travel Plan will be promoted by the management of the proposed development site, through the appointment of a Travel Plan Coordinator (TPC).

6.2 The TPC role will be nominated a key member of the management staff. At this early stage of the scheme Paul Mew Associates will act as an interim TPC for any Travel Plan related enquiries, contact details are as follows:

Paul Mew Associates - Traffic Consultants
Unit 1, Plym House, 21 Enterprise Way, London, SW18 1FZ
0208 780 0426
paul.mew@pma-traffic.co.uk

6.3 The responsibility of the TPC will be to encourage and promote the proposed measures of the plan amongst the site's future residents, staff and visitors.

6.4 The general roles and responsibilities of the TPC are listed as follows:

- Developing and implementing promotional, publicity, and awareness campaigns,
- Administering the Travel Plan Measures,
- Organising the collection, analysis and presentation of information related to the monitoring and development of the Travel Plan,
- Liaising with the developer and the key site management personnel,
- Liaising with the Local Planning Authority on Travel Plan progress and development, and
- Acting as a point of contact for all employees and residents requiring information.

6.5 In addition, the TPC will carry out regular monitoring of the plan through resident, staff and visitor questionnaires and traffic surveys, and the associated reporting of the findings for ongoing performance testing.

Travel Plan Measures

6.6 There are a number of ways in which this Travel Plan will set out to encourage residents, staff and visitors to travel sustainably and to subsequently discourage overreliance on the private car as a main mode of travel.

6.7 Travel Plan measures are generally split into two categories, 'hard' and 'soft' measures. Hard measures include those design features that will physically assist in reducing the traffic impact of a scheme whereas soft measures include the management, marketing and promotional measures which are designed to influence peoples travel choices.

Hard Measures

6.8 The proposed 16 dwellings will be provided with one designated disabled bay, resulting in parking space to dwelling ratio of 0.06. The proposed community centre will also provide on-site parking facilities comprising of four standard parking bays, one designated blue badge bay and one minibus bay. The restraint-based approach to parking is considered to be a sustainable transport measure in itself, aimed at discouraging car use and car travel to and from the site by staff, residents, and visitors.

6.9 In addition, the provision of a dedicated minibus service for the proposed community centre allows those who require to be transported to/from the site by vehicle, to be done so communally rather than in private vehicles. This in turn limits the traffic, parking and pollution impact generated by the proposed community centre.

6.10 It's also proposed that three years car club membership is provided for all 16 new dwellings along with a one-year free business account for the new community centre. The anticipated provider of the car club car is Zipcar who currently provide a network of vehicles in the local area, with a flex product also likely to be introduced in the near future. A formal proposal document from Zipcar is presented at Appendix F of this report.

6.11 The provision of a car club membership further reduces the likelihood of car ownership amongst future residents and employees of the development therefore benefiting the wider community.

6.12 Two of the proposed car parking spaces will be provided with an EV charging point to encourage and facilitate the use zero emission vehicles amongst future staff and residents/visitors to the site. The total EV parking provision equates to 28% of the total number of parking spaces provided within both sites, which is in excess of the 10% requirement detailed in Table 7.4 of BREEAM Tra 02 document.

6.13 Cycle parking will be provided on site for the proposed residential and community centre developments in accordance with London Plan standards which are in excess of the requirements set out in Table 7.5 of BREEAM Tra 02 document.

6.14 In terms of cycle parking for the residential development, 26 secure and sheltered long-stay cycle parking spaces (comprising of 20 vertical spaces, four standard Sheffield spaces and two larger Sheffield spaces) will be provided for the development within two communal cycle stores at ground level. Short-stay cycle parking will also be provided in accordance with London Plan requirements.

6.15 A total of two long-stay and six short-stay cycle parking spaces will also be provided for the proposed community centre in the form of three bike lockers and three Sheffield stands respectively.

6.16 The level of cycle parking will be reviewed annually and increased to a suitable level if/when demand is observed to exceed the current supply.

6.17 Refer to Appendix B for the proposed site plan illustrating the various 'hard measures' as described herein.

Soft Measures

6.18 Promotion of the Travel Plan will be by means of travel information and initiatives being displayed to all residents, staff and visitors. The first task of the TPC will be to ensure that travel information welcome booklets are produced and distributed to all new residents and staff at the community centre upon occupation of the premises. Promotion of public and sustainable transport at this early stage will be crucial in influencing resident, staff and visitor travel behaviour at the outset of the development being occupied.

6.19 The information will include the following:

- Details of all local public transport services including the location of the nearest service access points, timetable information and route maps: https://tfl.gov.uk/plan-a-journey/
- Details of public transport initiatives including bus passes for older/younger people in London: https://tfl.gov.uk/fares/free-and-discounted-travel
- Pedestrian facilities and the walk routes from the site to nearby public transport access points and places of interest / local amenities,
- Details of the on-site cycle parking and changing facilities and a copy of any local cycle route maps and information,
- Details of how to use Zip car membership and book vehicles,
- Staff will also be asked if there is the possibility of a lift share arrangement with colleagues,

- A bespoke staff car sharing scheme will attempt to be established by the TPC to encourage staff who share the same shift patterns and origin or route to work to drive together,
- Similarly, a bespoke residents' car sharing scheme will attempt to be established by the TPC to encourage residents to drive together for shopping and leisure trips using a Zip car vehicle,
- Wider car sharing will also be promoted by encouraging people to sign up to the London Liftshare scheme https://liftshare.com/uk/community/london-liftshare,
- Personalised journey planning will be provided to all members of staff and will also be offered to residents by the TPC.

6.20 It will be the duty of the TPC to make this information available to each member of staff, to residents, and visitors upon occupation.

6.21 In addition to the above, Travel Plan informational posters will be displayed in communal areas of the community centre.

6.22 The posters will include the same level of information that will be contained in the individual booklets - public transport maps, timetables and access points, cycle parking facilities and route maps, car sharing options, and walking routes to nearby destinations.

6.23 It will also be the duty of the TPC to ensure that the travel plan posters are displayed correctly and kept up-to-date.

Remedial Measures

6.24 If the Travel Plan modal shift / single occupancy vehicle reduction targets are not being met, there will be an organisational commitment to increase investment in the Travel Plan by an amount agreed with the Council in prior correspondence.

6.25 Improvement of a substandard Travel Plan could be made with some of the following measures:

- Enhanced personal travel planning provided for residents and staff through the TPC,
- An additional years' free membership to Zip car,
- Introduce a bicycle pool scheme,
- Increase the level of on-site cycle parking spaces or visitor cycle parking spaces, subject to a review of the usage of the current stock at the time.

7.0 ACTION PLAN

7.1 The programme for the implementation of the Travel Plan measures and monitoring arrangements, as and when they are required for the development, is set out in the action plan.

7.2 The action plan for the Travel Plan sets out tasks, intended implementation dates and funding sources. It is intended to be a live document which will be updated by the TPC to reflect the outcome of consultation with the site's management team, the local planning authority, and any external stakeholders.

7.3 The action plan for the Travel Plan is set out in the following summary table.

Table 12. Travel Plan Action Plan

Action	Target	Date	Funding	Indicator	Responsibility
Appointment of the Travel Plan Coordinator (TPC)	N/A	Prior to occupation	Site management	Appointment of instruction sent to Travel Plan Coordinator	Site management
Provision of 'hard' engineering measures (car, EV, car club membership, and cycle parking etc)	As per the proposed site plan	Prior to occupation	The developer	Completion of car and cycle parking	The developer
Production of 'Travel Information' welcome booklets and posters and implementation of other travel plan measures set out in Chapter 6	Issue of welcome pack to every resident and member of staff and an amount for ad-hoc distribution to regular visitors. Display of posters in communal areas of the site etc	Upon occupation	Site management	Receipt of booklets and posters	Site management
Undertake the TRICS SAM post-occupation resident, staff and visitor travel surveys	100% response rate to be aimed for	Within 3 months of full occupation of each site	Site management	Receipt of survey results	Site management
Set SMART modal shift targets	N/A	After post-occupancy surveys being carried out and analysed	Site management	Receipt of written agreement of targets from site management	Site management
Achieve SMART travel mode split targets	Achieve agreed target values	5 years after post-occupancy travel survey completed	Site management	Resident, staff and visitor travel surveys to be carried out annually to monitor Travel Plan performance	Site management

Source: Paul Mew Associates

7.4 The site's management team through the TPC will be responsible for administering the Travel Plan and will set aside funding to implement the Travel Plan throughout its 5-year lifetime.

7.5 The budget will include the following items:

- Fund the TPC role,
- Preparation and distribution of Travel Information Pack booklets for each resident and new member of staff and an additional allowance for regular visitors upon occupation of the new premises,
- Fund other marketing and promotional measures such as Travel Plan posters displayed in communal areas,
- The TPC budget will also include the preparation and collation of resident, staff and visitor travel surveys and the associated reporting for ongoing review,
- Funding for the payment of Council monitoring fees, and
- Funding will be made available for any remedial measures such as the provision of further cycle parking facilities if demand is shown to exceed current supply or financial offers for Zip car.

8.0 SUMMARY

8.1 To summarise, this BREEAM Travel Plan has been prepared in relation to the proposed development at Elleray Hall and North Lane East Car Park/Depot, Teddington, TW11.

8.2 The proposed development will see the construction of a new community centre (Use Class: D1 / F2 (b), 519sqm GIA, 587sqm GEA) with on-site parking facilities (comprising of four standard parking bays, one designated blue badge bay and one minibus bay) at North Lane East car park/depot. A residential development of 16 affordable flats (comprising of 14 one-bedroom (two person) and two two-bedroom units) is also proposed with one on-site blue badge parking bay (0.06 spaces per dwelling), which will replace the existing Elleray Hall.

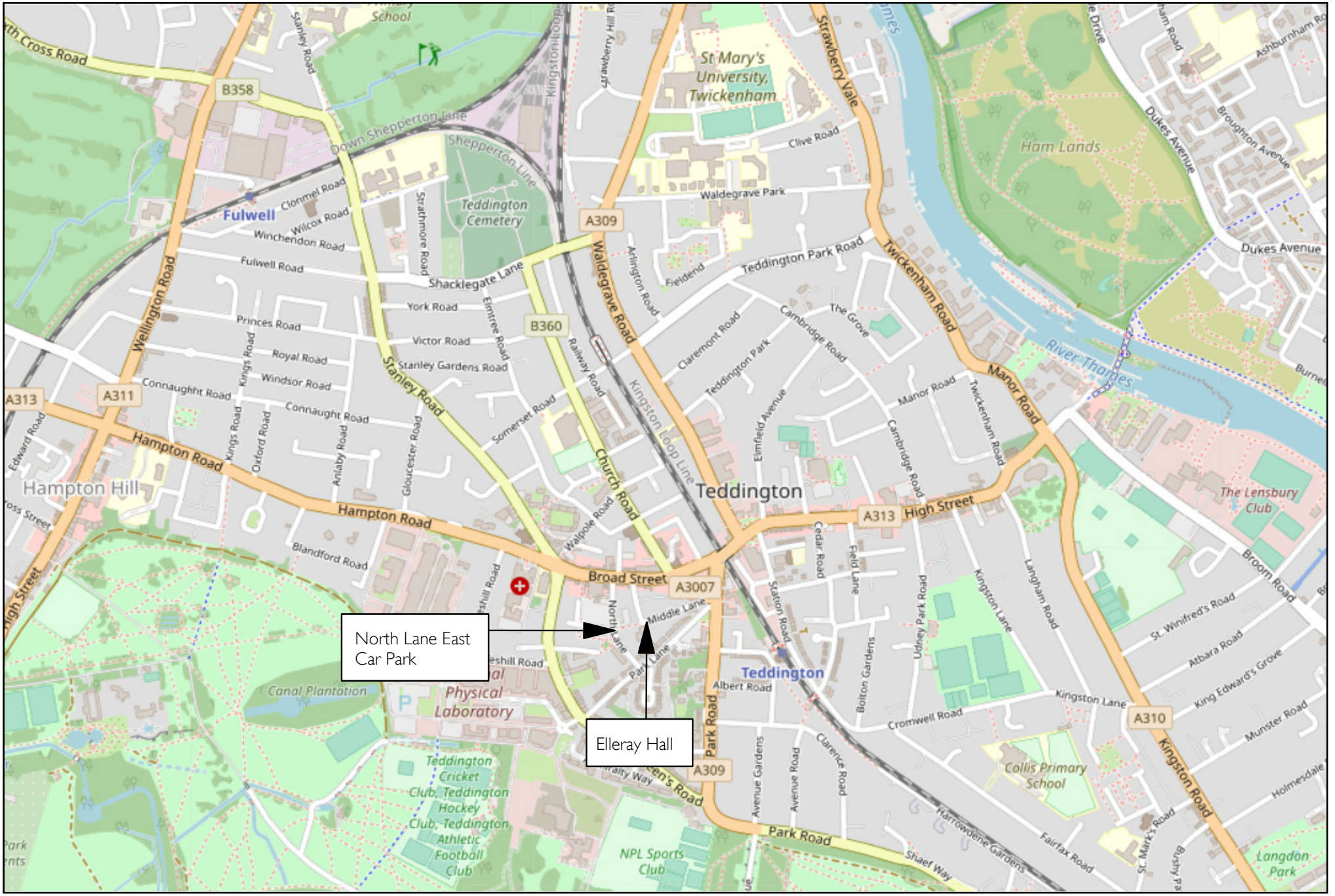
8.3 The developer is committed to reducing the traffic impact of the new development through the implementation of a Travel Plan. The Travel Plan is an undertaking as part of a BREEAM sustainability accreditation process, the Travel Plan will be secured by the Council as a condition of any future planning permission.

8.4 The site is situated within an area where access to public transport and sustainable transport links is readily available. These links will be promoted as part of the Travel Plan.

8.5 Thorough and regular monitoring of the Travel Plan will identify targets and assess to what extent they are being reached over the life of the scheme. Progress reporting will be carried out by the TPC.

8.6 It is the aim of this Travel Plan to influence travel behaviour upon occupation of the new development, and to reduce the traffic impact of the development on the adjoining highway.

FIGURES



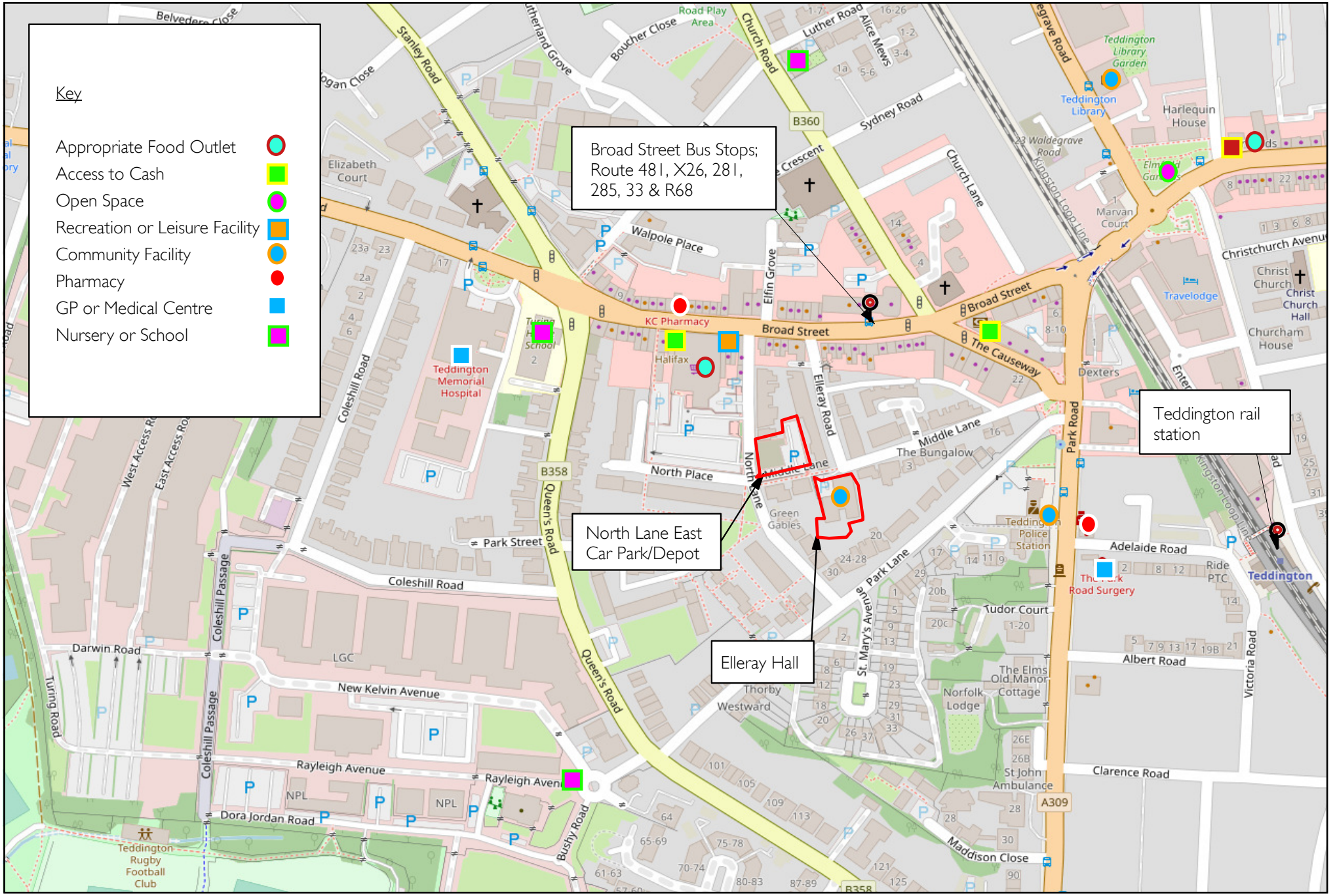
Date: 30 September 2020
Scale: NTS
Source: OpenStreetMap
Drawing No: P2379/TS/01

N

P2379: Elleray Hall & North Lane East Car Park/Depot, Teddington, TW11

Figure 1.
Site Location

PAUL MEW ASSOCIATES
TRAFFIC CONSULTANTS



Date: 11 March 2021
Scale: NTS
Source: OpenStreetMap
Drawing No: P2379/TS/02

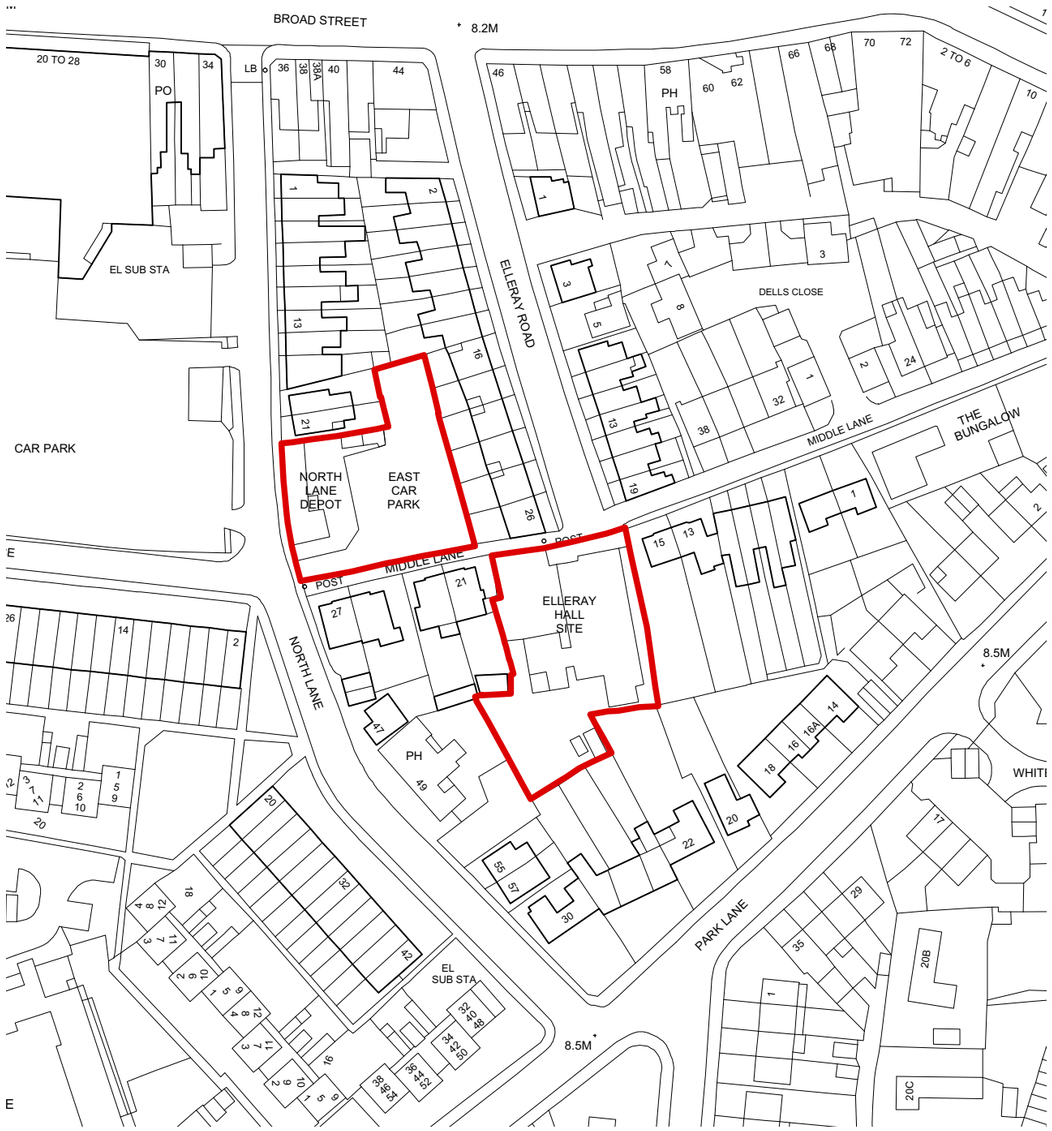
P2379: Elleray Hall & North Lane East Car Park/Depot, Teddington, TW11

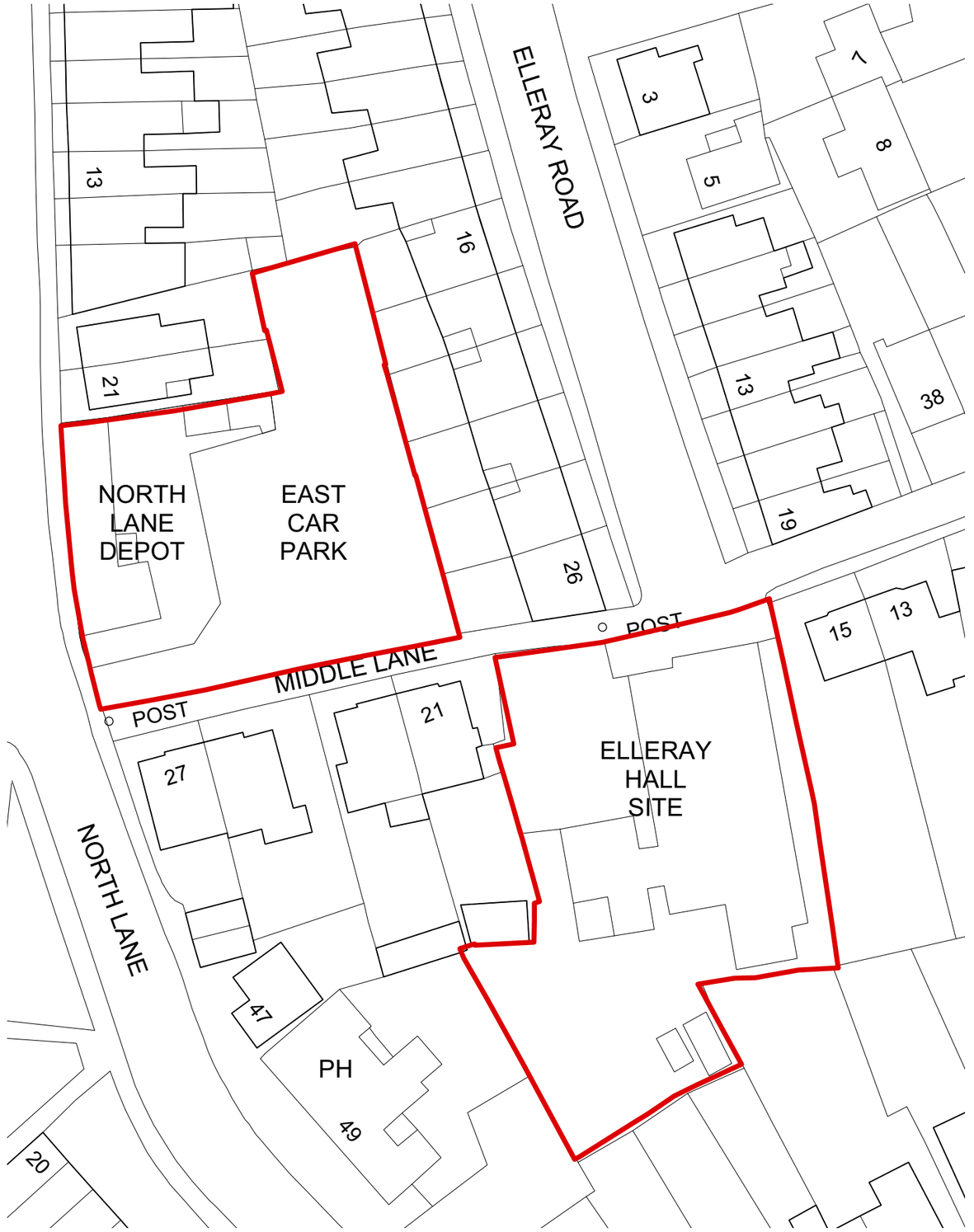
Figure 2.

Local Amenities & Public Transport Accessibility Map

PAUL MEW ASSOCIATES
TRAFFIC CONSULTANTS

APPENDIX A
Site Boundary





N

1:1250 SCALE BAR

0 20 40 60 80M

N

1:500 SCALE BAR

0 10 20 30M

PRE-APPLICATION

Project: ELLERAY HALL & NORTH LANE DEPOT/EAST CAR PARK, TEDDINGTON TW11		
Drawing: LOCATION PLAN		
Drawing No.: EHT-01	Scale: 1:1250/500 @ A3	Date: 07.08.20

APPENDIX B
Proposed Site Plan

NEW
COMMUNITY
CENTRE

SCHEDULE OF ACCOMMODATION

RESIDENTIAL DEVELOPMENT (USE CLASS C3(A)):

12 No. 1B/2P apartments @ 50.0M²
2 No. 2B/3P apartments @ 61.0M²
2 No. 1B/2P wheelchair unit @ 61.0M²
Communal Circulation (current) @ 31.0m²

Density: 120 Dwellings Per Hectare

TOTAL GIA - 949m2

COMMUNITY CENTRE (USE CLASS F2(B)):

· Foyer / Reception / Office – 20m² & 15m²
· Toilets - 2 female / 2 male / 1 disabled
· 2 Specialist rooms – 10m² each
· Kitchen - 30m²
· Café - 33m²
· Lounge - 41m²
· Quiet Room – 10m²
· Hall & Storage – 143m²
· 1st Floor Activity Rooms x 2 – 39m² & 28m²
· 1st Floor Office /admin – 17m²
· Garden - 268m²
· Sheddington – external store/workshop

TOTAL GIA - 519m2

NEW
RESIDENTIAL
DEVELOPMENT
2 STOREYS

PLANNING

Project: ELLERAY HALL SITE, TEDDINGTON		
Drawing: MASTERPLAN - PROPOSED SITE LAYOUT & ROOF PLANS		
Drawing No.: EHT-02	Scale: 1:200 @ A1	Date: 19.04.2021

CLIVE CHAPMAN
ARCHITECTS
SUSTAINABILITY CONSULTANTS
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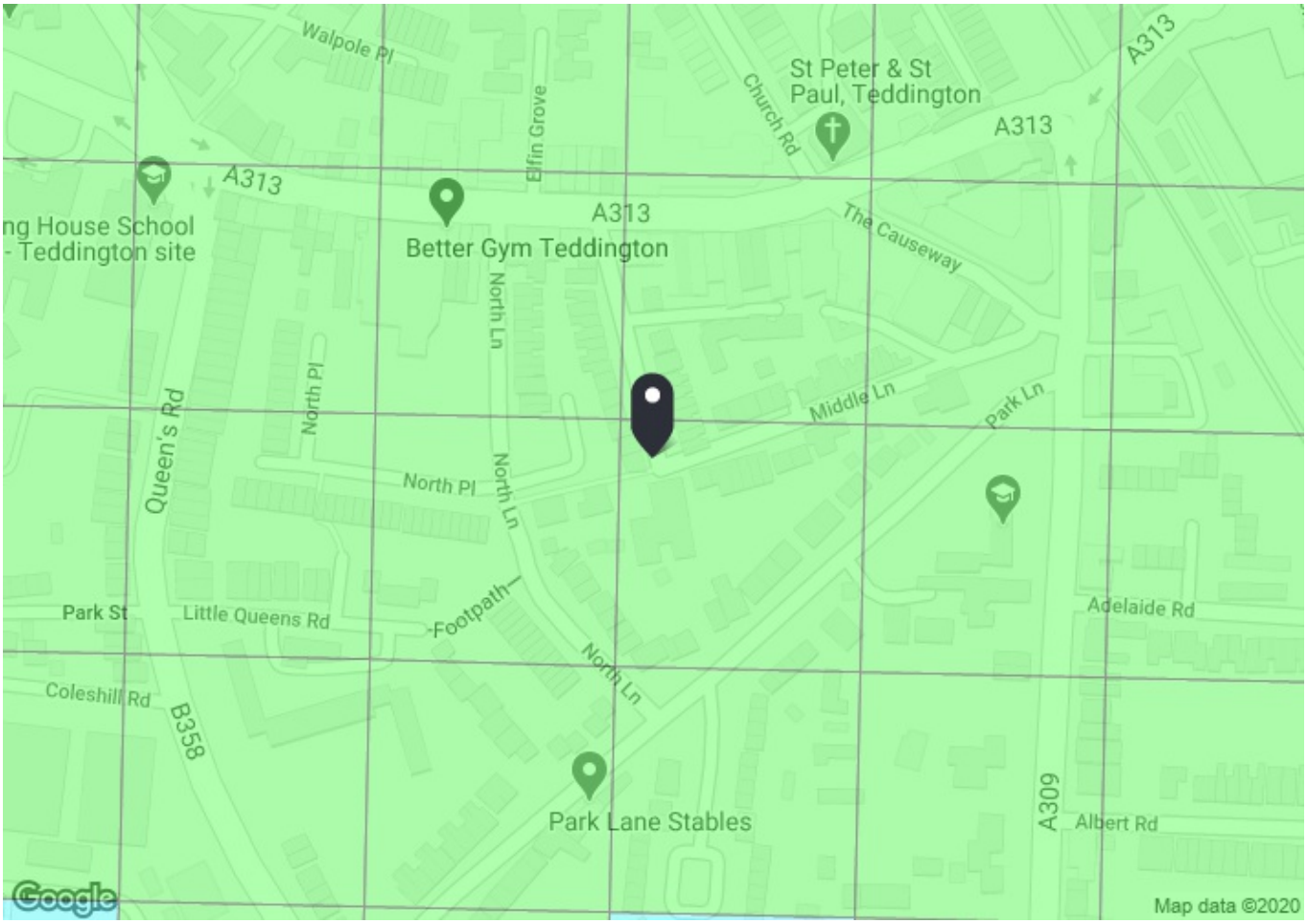
APPENDIX C
TfL PTAL Report

TRANSPORT FOR LONDON



PTAL output for Base Year
3

26 Elleray Rd, Teddington TW11 0HG, UK
Easting: 515710, Northing: 170878

Grid Cell: 35347

Report generated: 25/09/2020

Map key - PTAL

0 (Worst)	1a
1b	2
3	4
5	6a
6b (Best)	

Map layers

PTAL (cell size: 100m)

Calculation Parameters

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	TEDDINGTON BROAD STREET	481	199.12	1	2.49	32	34.49	0.87	0.5	0.43
Bus	TEDDINGTON BROAD STREET	X26	199.12	2	2.49	17	19.49	1.54	0.5	0.77
Bus	TEDDINGTON BROAD STREET	281	199.12	7.5	2.49	6	8.49	3.53	0.5	1.77
Bus	TEDDINGTON BROAD STREET	285	199.12	6	2.49	7	9.49	3.16	0.5	1.58
Bus	TEDDINGTON BROAD STREET	33	199.12	7.5	2.49	6	8.49	3.53	1	3.53
Bus	TEDDINGTON BROAD STREET	R68	199.12	4	2.49	9.5	11.99	2.5	0.5	1.25
Rail	Teddington	'WATRLMN-SHEPRTN 2H09'	436.12	2	5.45	15.75	21.2	1.41	1	1.41
Rail	Teddington	'SHEPRTN-WATRLMN 2H10'	436.12	2	5.45	15.75	21.2	1.41	0.5	0.71
Rail	Teddington	'WDON-WATRLMN 2K03 '	436.12	0.33	5.45	91.66	97.11	0.31	0.5	0.15
Rail	Teddington	'WATRLMN-WATRLMN 2K09'	436.12	2	5.45	15.75	21.2	1.41	0.5	0.71
Rail	Teddington	'WATRLMN-WATRLMN 2O09'	436.12	2	5.45	15.75	21.2	1.41	0.5	0.71
Rail	Teddington	'TEDNGTN-WATRLMN 2O90'	436.12	0.33	5.45	91.66	97.11	0.31	0.5	0.15
Rail	Teddington	'TWCKNHM-WATRLMN 2O92'	436.12	0.67	5.45	45.53	50.98	0.59	0.5	0.29
									Total Grid Cell AI:	**13.47**

APPENDIX D
TRICS Trip Generation Results – Community Centre

Calculation Reference: AUDIT-711001-210311-0300

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : Q - COMMUNITY CENTRE
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:
06 WEST MIDLANDS
ST STAFFORDSHIRE 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: 2329 to 2329 (units: sqm)
Range Selected by User: 100 to 2329 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 07/06/18

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:
Friday 1 days

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

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:
Edge of Town Centre 1

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:
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.

Secondary Filtering selection:

Use Class:
D2 1 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:
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:
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 1 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 1 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 1 days

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

LIST OF SITES relevant to selection parameters

1 ST-07-Q-01 COMMUNITY CENTRE STAFFORDSHIRE
DUDLEY ROAD
WOLVERHAMPTON

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2329 sqm
Survey date: FRIDAY *09/05/14* *Survey Type: MANUAL*

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CA-07-Q-02	Location not suitable
SH-07-Q-01	Location not suitable

TRIP RATE for Land Use 07 - LEISURE/Q - COMMUNITY CENTRE
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	2329	0.558	1	2329	0.043	1	2329	0.601
09:00 - 10:00	1	2329	0.386	1	2329	0.215	1	2329	0.601
10:00 - 11:00	1	2329	0.687	1	2329	0.730	1	2329	1.417
11:00 - 12:00	1	2329	0.601	1	2329	0.601	1	2329	1.202
12:00 - 13:00	1	2329	0.558	1	2329	0.601	1	2329	1.159
13:00 - 14:00	1	2329	0.515	1	2329	0.601	1	2329	1.116
14:00 - 15:00	1	2329	0.343	1	2329	0.773	1	2329	1.116
15:00 - 16:00	1	2329	0.258	1	2329	0.301	1	2329	0.559
16:00 - 17:00	1	2329	0.386	1	2329	0.258	1	2329	0.644
17:00 - 18:00	1	2329	0.172	1	2329	0.301	1	2329	0.473
18:00 - 19:00	1	2329	0.258	1	2329	0.129	1	2329	0.387
19:00 - 20:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
20:00 - 21:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
21:00 - 22:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.722			4.553			9.275

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:	2329 - 2329 (units: sqm)
Survey date date range:	01/01/12 - 07/06/18
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

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 07 - LEISURE/Q - COMMUNITY CENTRE
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
09:00 - 10:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
10:00 - 11:00	1	2329	0.043	1	2329	0.043	1	2329	0.086
11:00 - 12:00	1	2329	0.043	1	2329	0.043	1	2329	0.086
12:00 - 13:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
13:00 - 14:00	1	2329	0.043	1	2329	0.043	1	2329	0.086
14:00 - 15:00	1	2329	0.086	1	2329	0.086	1	2329	0.172
15:00 - 16:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
16:00 - 17:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
17:00 - 18:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
18:00 - 19:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
19:00 - 20:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
20:00 - 21:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
21:00 - 22:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.215			0.215			0.430

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 07 - LEISURE/Q - COMMUNITY CENTRE
MULTI-MODAL PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
09:00 - 10:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
10:00 - 11:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
11:00 - 12:00	1	2329	0.043	1	2329	0.000	1	2329	0.043
12:00 - 13:00	1	2329	0.000	1	2329	0.043	1	2329	0.043
13:00 - 14:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
14:00 - 15:00	1	2329	0.086	1	2329	0.086	1	2329	0.172
15:00 - 16:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
16:00 - 17:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
17:00 - 18:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
18:00 - 19:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
19:00 - 20:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
20:00 - 21:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
21:00 - 22:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.129			0.129			0.258

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 07 - LEISURE/Q - COMMUNITY CENTRE
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	2329	0.644	1	2329	0.043	1	2329	0.687
09:00 - 10:00	1	2329	0.558	1	2329	0.215	1	2329	0.773
10:00 - 11:00	1	2329	0.816	1	2329	0.988	1	2329	1.804
11:00 - 12:00	1	2329	0.730	1	2329	0.773	1	2329	1.503
12:00 - 13:00	1	2329	0.644	1	2329	0.601	1	2329	1.245
13:00 - 14:00	1	2329	0.515	1	2329	0.687	1	2329	1.202
14:00 - 15:00	1	2329	0.343	1	2329	0.988	1	2329	1.331
15:00 - 16:00	1	2329	0.343	1	2329	0.386	1	2329	0.729
16:00 - 17:00	1	2329	0.429	1	2329	0.301	1	2329	0.730
17:00 - 18:00	1	2329	0.172	1	2329	0.386	1	2329	0.558
18:00 - 19:00	1	2329	0.301	1	2329	0.172	1	2329	0.473
19:00 - 20:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
20:00 - 21:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
21:00 - 22:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.495			5.540			11.035

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 07 - LEISURE/Q - COMMUNITY CENTRE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	2329	0.472	1	2329	0.086	1	2329	0.558
09:00 - 10:00	1	2329	0.558	1	2329	0.172	1	2329	0.730
10:00 - 11:00	1	2329	1.331	1	2329	0.859	1	2329	2.190
11:00 - 12:00	1	2329	0.816	1	2329	0.429	1	2329	1.245
12:00 - 13:00	1	2329	1.288	1	2329	1.503	1	2329	2.791
13:00 - 14:00	1	2329	0.945	1	2329	1.073	1	2329	2.018
14:00 - 15:00	1	2329	0.386	1	2329	1.030	1	2329	1.416
15:00 - 16:00	1	2329	0.301	1	2329	0.601	1	2329	0.902
16:00 - 17:00	1	2329	0.902	1	2329	0.730	1	2329	1.632
17:00 - 18:00	1	2329	0.215	1	2329	0.258	1	2329	0.473
18:00 - 19:00	1	2329	0.258	1	2329	0.258	1	2329	0.516
19:00 - 20:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
20:00 - 21:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
21:00 - 22:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			7.472			6.999			14.471

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 07 - LEISURE/Q - COMMUNITY CENTRE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	2329	1.116	1	2329	0.129	1	2329	1.245
09:00 - 10:00	1	2329	1.116	1	2329	0.386	1	2329	1.502
10:00 - 11:00	1	2329	2.147	1	2329	1.846	1	2329	3.993
11:00 - 12:00	1	2329	1.546	1	2329	1.202	1	2329	2.748
12:00 - 13:00	1	2329	1.932	1	2329	2.104	1	2329	4.036
13:00 - 14:00	1	2329	1.460	1	2329	1.760	1	2329	3.220
14:00 - 15:00	1	2329	0.730	1	2329	2.018	1	2329	2.748
15:00 - 16:00	1	2329	0.644	1	2329	0.988	1	2329	1.632
16:00 - 17:00	1	2329	1.331	1	2329	1.030	1	2329	2.361
17:00 - 18:00	1	2329	0.386	1	2329	0.644	1	2329	1.030
18:00 - 19:00	1	2329	0.558	1	2329	0.429	1	2329	0.987
19:00 - 20:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
20:00 - 21:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
21:00 - 22:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			12.966			12.536			25.502

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 07 - LEISURE/Q - COMMUNITY CENTRE
MULTI-MODAL LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
09:00 - 10:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
10:00 - 11:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
11:00 - 12:00	1	2329	0.129	1	2329	0.043	1	2329	0.172
12:00 - 13:00	1	2329	0.000	1	2329	0.086	1	2329	0.086
13:00 - 14:00	1	2329	0.043	1	2329	0.000	1	2329	0.043
14:00 - 15:00	1	2329	0.000	1	2329	0.043	1	2329	0.043
15:00 - 16:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
16:00 - 17:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
17:00 - 18:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
18:00 - 19:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
19:00 - 20:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
20:00 - 21:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
21:00 - 22:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.172			0.172			0.344

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 07 - LEISURE/Q - COMMUNITY CENTRE
MULTI-MODAL MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
09:00 - 10:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
10:00 - 11:00	1	2329	0.043	1	2329	0.000	1	2329	0.043
11:00 - 12:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
12:00 - 13:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
13:00 - 14:00	1	2329	0.000	1	2329	0.043	1	2329	0.043
14:00 - 15:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
15:00 - 16:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
16:00 - 17:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
17:00 - 18:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
18:00 - 19:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
19:00 - 20:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
20:00 - 21:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
21:00 - 22:00	1	2329	0.000	1	2329	0.000	1	2329	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.043			0.043			0.086

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

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

APPENDIX E
TRICS Trip Generation Results – Residential Development

Calculation Reference: AUDIT-711001-210311-0349

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON		
	HM	HAMMERSMITH AND FULHAM	1 days
	IS	ISLINGTON	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: 157 to 194 (units:)
Range Selected by User: 6 to 493 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: Selected: 0.07 to 0.3 Actual: 0.07 to 2.30

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 06/03/20

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:

Tuesday	1 days
Thursday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town 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:

Development Zone	1
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.

Secondary Filtering selection:

Use Class:

C3	2 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:

50,001 to 100,000	1 days
100,001 or More	1 days

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

Population within 5 miles:

500,001 or More	2 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	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	2 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:

6a Excellent	1 days
6b (High) Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1	HM-03-C-02 GLENTHORNE ROAD HAMMERSMITH	BLOCKS OF FLATS		HAMMERSMITH AND FULHAM
	Town Centre Built-Up Zone Total No of Dwellings:		194	
	Survey date: TUESDAY		*30/04/19*	*Survey Type: MANUAL*
2	IS-03-C-04 CITY ROAD ISLINGTON	BLOCK OF FLATS		ISLINGTON
	Edge of Town Centre Development Zone Total No of Dwellings:		157	
	Survey date: THURSDAY		*14/07/16*	*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 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.023	2	176	0.034	2	176	0.057
08:00 - 09:00	2	176	0.017	2	176	0.020	2	176	0.037
09:00 - 10:00	2	176	0.026	2	176	0.028	2	176	0.054
10:00 - 11:00	2	176	0.026	2	176	0.023	2	176	0.049
11:00 - 12:00	2	176	0.026	2	176	0.031	2	176	0.057
12:00 - 13:00	2	176	0.014	2	176	0.017	2	176	0.031
13:00 - 14:00	2	176	0.028	2	176	0.037	2	176	0.065
14:00 - 15:00	2	176	0.009	2	176	0.009	2	176	0.018
15:00 - 16:00	2	176	0.020	2	176	0.017	2	176	0.037
16:00 - 17:00	2	176	0.048	2	176	0.034	2	176	0.082
17:00 - 18:00	2	176	0.028	2	176	0.014	2	176	0.042
18:00 - 19:00	2	176	0.040	2	176	0.026	2	176	0.066
19:00 - 20:00	2	176	0.031	2	176	0.031	2	176	0.062
20:00 - 21:00	2	176	0.014	2	176	0.014	2	176	0.028
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.350			0.335			0.685

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:	157 - 194 (units:)
Survey date date range:	01/01/12 - 06/03/20
Number of weekdays (Monday-Friday):	2
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 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 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.009	2	176	0.009	2	176	0.018
08:00 - 09:00	2	176	0.003	2	176	0.003	2	176	0.006
09:00 - 10:00	2	176	0.006	2	176	0.006	2	176	0.012
10:00 - 11:00	2	176	0.009	2	176	0.009	2	176	0.018
11:00 - 12:00	2	176	0.006	2	176	0.006	2	176	0.012
12:00 - 13:00	2	176	0.003	2	176	0.003	2	176	0.006
13:00 - 14:00	2	176	0.009	2	176	0.009	2	176	0.018
14:00 - 15:00	2	176	0.000	2	176	0.000	2	176	0.000
15:00 - 16:00	2	176	0.003	2	176	0.003	2	176	0.006
16:00 - 17:00	2	176	0.006	2	176	0.006	2	176	0.012
17:00 - 18:00	2	176	0.000	2	176	0.000	2	176	0.000
18:00 - 19:00	2	176	0.006	2	176	0.006	2	176	0.012
19:00 - 20:00	2	176	0.009	2	176	0.009	2	176	0.018
20:00 - 21:00	2	176	0.009	2	176	0.009	2	176	0.018
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.078			0.078			0.156

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.000	2	176	0.000	2	176	0.000
08:00 - 09:00	2	176	0.003	2	176	0.003	2	176	0.006
09:00 - 10:00	2	176	0.003	2	176	0.003	2	176	0.006
10:00 - 11:00	2	176	0.000	2	176	0.000	2	176	0.000
11:00 - 12:00	2	176	0.003	2	176	0.003	2	176	0.006
12:00 - 13:00	2	176	0.000	2	176	0.000	2	176	0.000
13:00 - 14:00	2	176	0.000	2	176	0.000	2	176	0.000
14:00 - 15:00	2	176	0.000	2	176	0.000	2	176	0.000
15:00 - 16:00	2	176	0.000	2	176	0.000	2	176	0.000
16:00 - 17:00	2	176	0.000	2	176	0.000	2	176	0.000
17:00 - 18:00	2	176	0.000	2	176	0.000	2	176	0.000
18:00 - 19:00	2	176	0.000	2	176	0.000	2	176	0.000
19:00 - 20:00	2	176	0.000	2	176	0.000	2	176	0.000
20:00 - 21:00	2	176	0.000	2	176	0.000	2	176	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

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 CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.003	2	176	0.009	2	176	0.012
08:00 - 09:00	2	176	0.000	2	176	0.009	2	176	0.009
09:00 - 10:00	2	176	0.000	2	176	0.000	2	176	0.000
10:00 - 11:00	2	176	0.003	2	176	0.009	2	176	0.012
11:00 - 12:00	2	176	0.000	2	176	0.000	2	176	0.000
12:00 - 13:00	2	176	0.003	2	176	0.006	2	176	0.009
13:00 - 14:00	2	176	0.000	2	176	0.000	2	176	0.000
14:00 - 15:00	2	176	0.006	2	176	0.003	2	176	0.009
15:00 - 16:00	2	176	0.000	2	176	0.000	2	176	0.000
16:00 - 17:00	2	176	0.006	2	176	0.000	2	176	0.006
17:00 - 18:00	2	176	0.009	2	176	0.003	2	176	0.012
18:00 - 19:00	2	176	0.003	2	176	0.000	2	176	0.003
19:00 - 20:00	2	176	0.006	2	176	0.006	2	176	0.012
20:00 - 21:00	2	176	0.009	2	176	0.003	2	176	0.012
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.048			0.048			0.096

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 VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.023	2	176	0.043	2	176	0.066
08:00 - 09:00	2	176	0.014	2	176	0.026	2	176	0.040
09:00 - 10:00	2	176	0.026	2	176	0.037	2	176	0.063
10:00 - 11:00	2	176	0.026	2	176	0.031	2	176	0.057
11:00 - 12:00	2	176	0.023	2	176	0.040	2	176	0.063
12:00 - 13:00	2	176	0.017	2	176	0.020	2	176	0.037
13:00 - 14:00	2	176	0.028	2	176	0.048	2	176	0.076
14:00 - 15:00	2	176	0.009	2	176	0.009	2	176	0.018
15:00 - 16:00	2	176	0.023	2	176	0.017	2	176	0.040
16:00 - 17:00	2	176	0.068	2	176	0.028	2	176	0.096
17:00 - 18:00	2	176	0.043	2	176	0.020	2	176	0.063
18:00 - 19:00	2	176	0.051	2	176	0.034	2	176	0.085
19:00 - 20:00	2	176	0.031	2	176	0.040	2	176	0.071
20:00 - 21:00	2	176	0.020	2	176	0.011	2	176	0.031
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.402			0.404			0.806

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 PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.009	2	176	0.048	2	176	0.057
08:00 - 09:00	2	176	0.014	2	176	0.094	2	176	0.108
09:00 - 10:00	2	176	0.014	2	176	0.057	2	176	0.071
10:00 - 11:00	2	176	0.031	2	176	0.017	2	176	0.048
11:00 - 12:00	2	176	0.040	2	176	0.034	2	176	0.074
12:00 - 13:00	2	176	0.020	2	176	0.031	2	176	0.051
13:00 - 14:00	2	176	0.031	2	176	0.040	2	176	0.071
14:00 - 15:00	2	176	0.028	2	176	0.051	2	176	0.079
15:00 - 16:00	2	176	0.054	2	176	0.031	2	176	0.085
16:00 - 17:00	2	176	0.074	2	176	0.057	2	176	0.131
17:00 - 18:00	2	176	0.048	2	176	0.031	2	176	0.079
18:00 - 19:00	2	176	0.114	2	176	0.080	2	176	0.194
19:00 - 20:00	2	176	0.054	2	176	0.043	2	176	0.097
20:00 - 21:00	2	176	0.054	2	176	0.071	2	176	0.125
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.585			0.685			1.270

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 BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.003	2	176	0.028	2	176	0.031
08:00 - 09:00	2	176	0.009	2	176	0.048	2	176	0.057
09:00 - 10:00	2	176	0.003	2	176	0.017	2	176	0.020
10:00 - 11:00	2	176	0.011	2	176	0.020	2	176	0.031
11:00 - 12:00	2	176	0.000	2	176	0.020	2	176	0.020
12:00 - 13:00	2	176	0.003	2	176	0.017	2	176	0.020
13:00 - 14:00	2	176	0.011	2	176	0.009	2	176	0.020
14:00 - 15:00	2	176	0.011	2	176	0.009	2	176	0.020
15:00 - 16:00	2	176	0.020	2	176	0.014	2	176	0.034
16:00 - 17:00	2	176	0.017	2	176	0.006	2	176	0.023
17:00 - 18:00	2	176	0.026	2	176	0.006	2	176	0.032
18:00 - 19:00	2	176	0.043	2	176	0.009	2	176	0.052
19:00 - 20:00	2	176	0.014	2	176	0.006	2	176	0.020
20:00 - 21:00	2	176	0.003	2	176	0.017	2	176	0.020
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.174			0.226			0.400

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 RAIL PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.026	2	176	0.125	2	176	0.151
08:00 - 09:00	2	176	0.017	2	176	0.177	2	176	0.194
09:00 - 10:00	2	176	0.020	2	176	0.026	2	176	0.046
10:00 - 11:00	2	176	0.040	2	176	0.046	2	176	0.086
11:00 - 12:00	2	176	0.020	2	176	0.048	2	176	0.068
12:00 - 13:00	2	176	0.028	2	176	0.028	2	176	0.056
13:00 - 14:00	2	176	0.026	2	176	0.020	2	176	0.046
14:00 - 15:00	2	176	0.028	2	176	0.017	2	176	0.045
15:00 - 16:00	2	176	0.006	2	176	0.017	2	176	0.023
16:00 - 17:00	2	176	0.011	2	176	0.028	2	176	0.039
17:00 - 18:00	2	176	0.048	2	176	0.020	2	176	0.068
18:00 - 19:00	2	176	0.117	2	176	0.017	2	176	0.134
19:00 - 20:00	2	176	0.077	2	176	0.009	2	176	0.086
20:00 - 21:00	2	176	0.043	2	176	0.003	2	176	0.046
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.507			0.581			1.088

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 PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.028	2	176	0.154	2	176	0.182
08:00 - 09:00	2	176	0.026	2	176	0.225	2	176	0.251
09:00 - 10:00	2	176	0.023	2	176	0.043	2	176	0.066
10:00 - 11:00	2	176	0.051	2	176	0.066	2	176	0.117
11:00 - 12:00	2	176	0.020	2	176	0.068	2	176	0.088
12:00 - 13:00	2	176	0.031	2	176	0.046	2	176	0.077
13:00 - 14:00	2	176	0.037	2	176	0.028	2	176	0.065
14:00 - 15:00	2	176	0.040	2	176	0.026	2	176	0.066
15:00 - 16:00	2	176	0.026	2	176	0.031	2	176	0.057
16:00 - 17:00	2	176	0.028	2	176	0.034	2	176	0.062
17:00 - 18:00	2	176	0.074	2	176	0.026	2	176	0.100
18:00 - 19:00	2	176	0.160	2	176	0.026	2	176	0.186
19:00 - 20:00	2	176	0.091	2	176	0.014	2	176	0.105
20:00 - 21:00	2	176	0.046	2	176	0.020	2	176	0.066
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.681			0.807			1.488

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.063	2	176	0.254	2	176	0.317
08:00 - 09:00	2	176	0.054	2	176	0.353	2	176	0.407
09:00 - 10:00	2	176	0.063	2	176	0.137	2	176	0.200
10:00 - 11:00	2	176	0.111	2	176	0.123	2	176	0.234
11:00 - 12:00	2	176	0.083	2	176	0.142	2	176	0.225
12:00 - 13:00	2	176	0.071	2	176	0.103	2	176	0.174
13:00 - 14:00	2	176	0.097	2	176	0.117	2	176	0.214
14:00 - 15:00	2	176	0.083	2	176	0.088	2	176	0.171
15:00 - 16:00	2	176	0.103	2	176	0.080	2	176	0.183
16:00 - 17:00	2	176	0.177	2	176	0.120	2	176	0.297
17:00 - 18:00	2	176	0.174	2	176	0.080	2	176	0.254
18:00 - 19:00	2	176	0.328	2	176	0.140	2	176	0.468
19:00 - 20:00	2	176	0.182	2	176	0.103	2	176	0.285
20:00 - 21:00	2	176	0.128	2	176	0.105	2	176	0.233
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.717			1.945			3.662

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 CARS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.009	2	176	0.020	2	176	0.029
08:00 - 09:00	2	176	0.003	2	176	0.011	2	176	0.014
09:00 - 10:00	2	176	0.009	2	176	0.006	2	176	0.015
10:00 - 11:00	2	176	0.003	2	176	0.009	2	176	0.012
11:00 - 12:00	2	176	0.009	2	176	0.011	2	176	0.020
12:00 - 13:00	2	176	0.011	2	176	0.009	2	176	0.020
13:00 - 14:00	2	176	0.009	2	176	0.017	2	176	0.026
14:00 - 15:00	2	176	0.003	2	176	0.000	2	176	0.003
15:00 - 16:00	2	176	0.003	2	176	0.000	2	176	0.003
16:00 - 17:00	2	176	0.017	2	176	0.003	2	176	0.020
17:00 - 18:00	2	176	0.026	2	176	0.011	2	176	0.037
18:00 - 19:00	2	176	0.026	2	176	0.011	2	176	0.037
19:00 - 20:00	2	176	0.011	2	176	0.011	2	176	0.022
20:00 - 21:00	2	176	0.006	2	176	0.006	2	176	0.012
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.145			0.125			0.270

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.006	2	176	0.006	2	176	0.012
08:00 - 09:00	2	176	0.009	2	176	0.003	2	176	0.012
09:00 - 10:00	2	176	0.009	2	176	0.014	2	176	0.023
10:00 - 11:00	2	176	0.006	2	176	0.003	2	176	0.009
11:00 - 12:00	2	176	0.009	2	176	0.009	2	176	0.018
12:00 - 13:00	2	176	0.000	2	176	0.003	2	176	0.003
13:00 - 14:00	2	176	0.011	2	176	0.011	2	176	0.022
14:00 - 15:00	2	176	0.000	2	176	0.003	2	176	0.003
15:00 - 16:00	2	176	0.011	2	176	0.011	2	176	0.022
16:00 - 17:00	2	176	0.020	2	176	0.020	2	176	0.040
17:00 - 18:00	2	176	0.003	2	176	0.003	2	176	0.006
18:00 - 19:00	2	176	0.003	2	176	0.003	2	176	0.006
19:00 - 20:00	2	176	0.006	2	176	0.006	2	176	0.012
20:00 - 21:00	2	176	0.000	2	176	0.000	2	176	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.093			0.095			0.188

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 MOTOR CYCLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.000	2	176	0.000	2	176	0.000
08:00 - 09:00	2	176	0.000	2	176	0.000	2	176	0.000
09:00 - 10:00	2	176	0.000	2	176	0.000	2	176	0.000
10:00 - 11:00	2	176	0.009	2	176	0.003	2	176	0.012
11:00 - 12:00	2	176	0.000	2	176	0.003	2	176	0.003
12:00 - 13:00	2	176	0.000	2	176	0.003	2	176	0.003
13:00 - 14:00	2	176	0.000	2	176	0.000	2	176	0.000
14:00 - 15:00	2	176	0.006	2	176	0.006	2	176	0.012
15:00 - 16:00	2	176	0.003	2	176	0.003	2	176	0.006
16:00 - 17:00	2	176	0.006	2	176	0.006	2	176	0.012
17:00 - 18:00	2	176	0.000	2	176	0.000	2	176	0.000
18:00 - 19:00	2	176	0.006	2	176	0.006	2	176	0.012
19:00 - 20:00	2	176	0.006	2	176	0.006	2	176	0.012
20:00 - 21:00	2	176	0.000	2	176	0.000	2	176	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.036			0.036			0.072

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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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL Underground Passengers
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.026	2	176	0.105	2	176	0.131
08:00 - 09:00	2	176	0.017	2	176	0.165	2	176	0.182
09:00 - 10:00	2	176	0.017	2	176	0.020	2	176	0.037
10:00 - 11:00	2	176	0.031	2	176	0.040	2	176	0.071
11:00 - 12:00	2	176	0.017	2	176	0.043	2	176	0.060
12:00 - 13:00	2	176	0.026	2	176	0.028	2	176	0.054
13:00 - 14:00	2	176	0.023	2	176	0.017	2	176	0.040
14:00 - 15:00	2	176	0.026	2	176	0.017	2	176	0.043
15:00 - 16:00	2	176	0.006	2	176	0.017	2	176	0.023
16:00 - 17:00	2	176	0.009	2	176	0.020	2	176	0.029
17:00 - 18:00	2	176	0.046	2	176	0.020	2	176	0.066
18:00 - 19:00	2	176	0.103	2	176	0.017	2	176	0.120
19:00 - 20:00	2	176	0.071	2	176	0.009	2	176	0.080
20:00 - 21:00	2	176	0.037	2	176	0.003	2	176	0.040
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.455			0.521			0.976

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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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL Overground Passengers
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.000	2	176	0.003	2	176	0.003
08:00 - 09:00	2	176	0.000	2	176	0.000	2	176	0.000
09:00 - 10:00	2	176	0.000	2	176	0.003	2	176	0.003
10:00 - 11:00	2	176	0.006	2	176	0.000	2	176	0.006
11:00 - 12:00	2	176	0.000	2	176	0.000	2	176	0.000
12:00 - 13:00	2	176	0.000	2	176	0.000	2	176	0.000
13:00 - 14:00	2	176	0.000	2	176	0.000	2	176	0.000
14:00 - 15:00	2	176	0.003	2	176	0.000	2	176	0.003
15:00 - 16:00	2	176	0.000	2	176	0.000	2	176	0.000
16:00 - 17:00	2	176	0.000	2	176	0.000	2	176	0.000
17:00 - 18:00	2	176	0.000	2	176	0.000	2	176	0.000
18:00 - 19:00	2	176	0.000	2	176	0.000	2	176	0.000
19:00 - 20:00	2	176	0.000	2	176	0.000	2	176	0.000
20:00 - 21:00	2	176	0.000	2	176	0.000	2	176	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.006			0.015

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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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL National Rail Passengers
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.000	2	176	0.017	2	176	0.017
08:00 - 09:00	2	176	0.000	2	176	0.011	2	176	0.011
09:00 - 10:00	2	176	0.003	2	176	0.003	2	176	0.006
10:00 - 11:00	2	176	0.003	2	176	0.006	2	176	0.009
11:00 - 12:00	2	176	0.003	2	176	0.006	2	176	0.009
12:00 - 13:00	2	176	0.003	2	176	0.000	2	176	0.003
13:00 - 14:00	2	176	0.003	2	176	0.003	2	176	0.006
14:00 - 15:00	2	176	0.000	2	176	0.000	2	176	0.000
15:00 - 16:00	2	176	0.000	2	176	0.000	2	176	0.000
16:00 - 17:00	2	176	0.003	2	176	0.009	2	176	0.012
17:00 - 18:00	2	176	0.003	2	176	0.000	2	176	0.003
18:00 - 19:00	2	176	0.014	2	176	0.000	2	176	0.014
19:00 - 20:00	2	176	0.006	2	176	0.000	2	176	0.006
20:00 - 21:00	2	176	0.006	2	176	0.000	2	176	0.006
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.047			0.055			0.102

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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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL Bus Passengers
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.003	2	176	0.028	2	176	0.031
08:00 - 09:00	2	176	0.009	2	176	0.048	2	176	0.057
09:00 - 10:00	2	176	0.003	2	176	0.017	2	176	0.020
10:00 - 11:00	2	176	0.011	2	176	0.020	2	176	0.031
11:00 - 12:00	2	176	0.000	2	176	0.020	2	176	0.020
12:00 - 13:00	2	176	0.003	2	176	0.017	2	176	0.020
13:00 - 14:00	2	176	0.011	2	176	0.009	2	176	0.020
14:00 - 15:00	2	176	0.011	2	176	0.009	2	176	0.020
15:00 - 16:00	2	176	0.020	2	176	0.014	2	176	0.034
16:00 - 17:00	2	176	0.017	2	176	0.006	2	176	0.023
17:00 - 18:00	2	176	0.026	2	176	0.006	2	176	0.032
18:00 - 19:00	2	176	0.043	2	176	0.009	2	176	0.052
19:00 - 20:00	2	176	0.014	2	176	0.006	2	176	0.020
20:00 - 21:00	2	176	0.003	2	176	0.017	2	176	0.020
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.174			0.226			0.400

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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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL Servicing Vehicles
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	176	0.009	2	176	0.009	2	176	0.018
08:00 - 09:00	2	176	0.011	2	176	0.009	2	176	0.020
09:00 - 10:00	2	176	0.011	2	176	0.014	2	176	0.025
10:00 - 11:00	2	176	0.009	2	176	0.006	2	176	0.015
11:00 - 12:00	2	176	0.011	2	176	0.011	2	176	0.022
12:00 - 13:00	2	176	0.000	2	176	0.003	2	176	0.003
13:00 - 14:00	2	176	0.014	2	176	0.014	2	176	0.028
14:00 - 15:00	2	176	0.000	2	176	0.000	2	176	0.000
15:00 - 16:00	2	176	0.011	2	176	0.011	2	176	0.022
16:00 - 17:00	2	176	0.023	2	176	0.023	2	176	0.046
17:00 - 18:00	2	176	0.003	2	176	0.003	2	176	0.006
18:00 - 19:00	2	176	0.006	2	176	0.006	2	176	0.012
19:00 - 20:00	2	176	0.006	2	176	0.006	2	176	0.012
20:00 - 21:00	2	176	0.000	2	176	0.000	2	176	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.114			0.115			0.229

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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APPENDIX F
Zip Car Membership Proposal

North Lane
London Borough of Richmond upon Thames
Paul Mew Associates

Proposal: April 21

David Lang DD: 0203 004 7860
UK Property Developments dlang@zipcar.co.uk

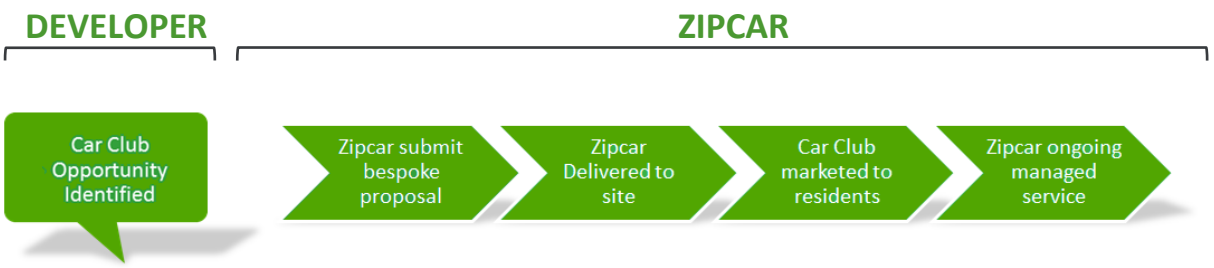
zipcar®

Zipcar & Property Developments

Zipcar works with an ever increasing number of Property Developers, Transport Consultants and Housing Associations across the UK to:

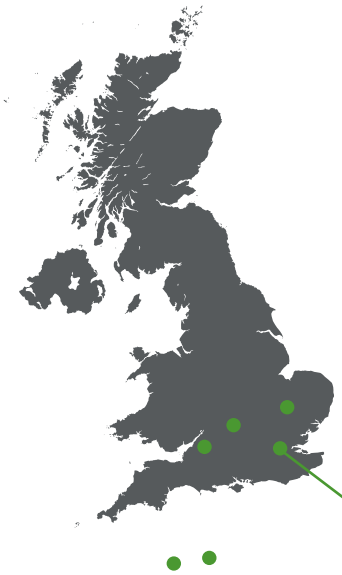
- ✓ Increase the likelihood of gaining planning permission on a site.
- ✓ Addressing specific Section 106 or Travel Plan requirements.
- ✓ Reducing the need to provide costly private parking.
- ✓ Act as a useful marketing tool to help sell properties with a limited parking provision.

Working with Zipcar – 5 Simple Steps



What is Zipcar?

Zipcar is a pay-as-you-go car club designed to provide members with access to cars and vans as quickly and conveniently as possible with the least amount of hassle. Our team is passionate about bringing this innovative concept to every urban street as a simpler, more efficient, more sustainable way to use a car.



2010
Zipcar merged with Streetcar and is the World's largest car-sharing club

Over 1,000,000 members
worldwide

4 UK cities
London, Bristol, Cambridge & Oxford,

London is the largest UK network with 1,700 bays; 5 times more locations than Starbucks!

Zipcar users are ABC1 adults aged between 25-44 yrs old.

71% use Zipcar for leisure/spontaneous & activities.

Zipcar users are urban-dwellers that like to explore the city & jump at the chance to engage with nature and the outdoors.

Members use Zipcar as an alternative to the costs and hassles of owning or hiring a car.

Best of both worlds

Zipcar is the only operator that give residents access to both a flexible per minute hire and long term hourly and daily model. Residents can just pick and choose whichever suits their trip. The Flex model has launched in 13 boroughs and we are looking to roll this across the city over the next 18 months.

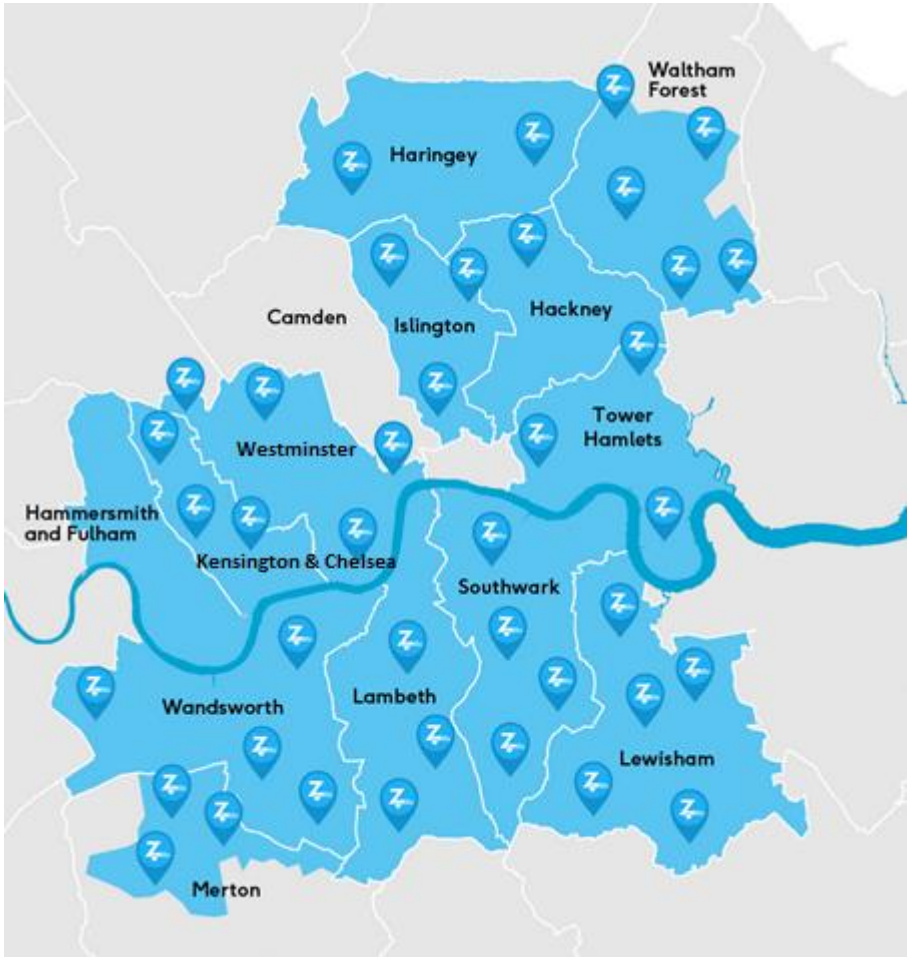
Roundtrip

Perfect for longer trips that go full circle. Need to lug some flat-pack back from Ikea? Or escaping to the country for a weekend? A Roundtrip is the easy way to do it. Book a vehicle, drive and return to the bay you picked it up from.

Flex

Ideal for spontaneous one-way journeys. Pick up a Flex vehicle from the home zone and your friends enroute. Dashing to a meeting across town? Flex it in no time.

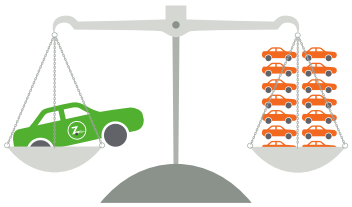
Current Flex Home Zone



A Sustainable Transport Solution

A large proportion of your future residents may have a private vehicle, but may not really need one. They may commute to work using public transport and just have a car for occasional use. A relationship with the world's largest car sharing club would definitely assist in reducing the carbon footprint of your residents, provide a convenient and easily-used service, and save them a substantial amount of money.

Every Zipcar takes an average of 10-14 privately owned cars off the roads of the UK, because members often sell (or don't replace) a car when they join.



Zipcar is a service that benefits the whole community. We have found that car club members choose to drive a car less after joining Zipcar; the average car club member only actually clocks up between 403 and 414 miles a year which is significantly less than private vehicle owners. This is because they both make better use of public transport and think much harder about their transport options according to what they need to achieve and the cost associated with that decision.

Not only this but car club vehicles are typically between 10% and 33% more efficient in terms of carbon dioxide emissions per KM travelled, in comparison to the average car, because operators chose new and fuel efficient models.

Using Zipcar

The Zipcar process has been designed to provide simplicity and little administration – there are no depots or deposits involved (headaches typically found with regular car hire). Once the person has become a member there is no further form filling required to hire a vehicle anywhere in the world.

Development Viability

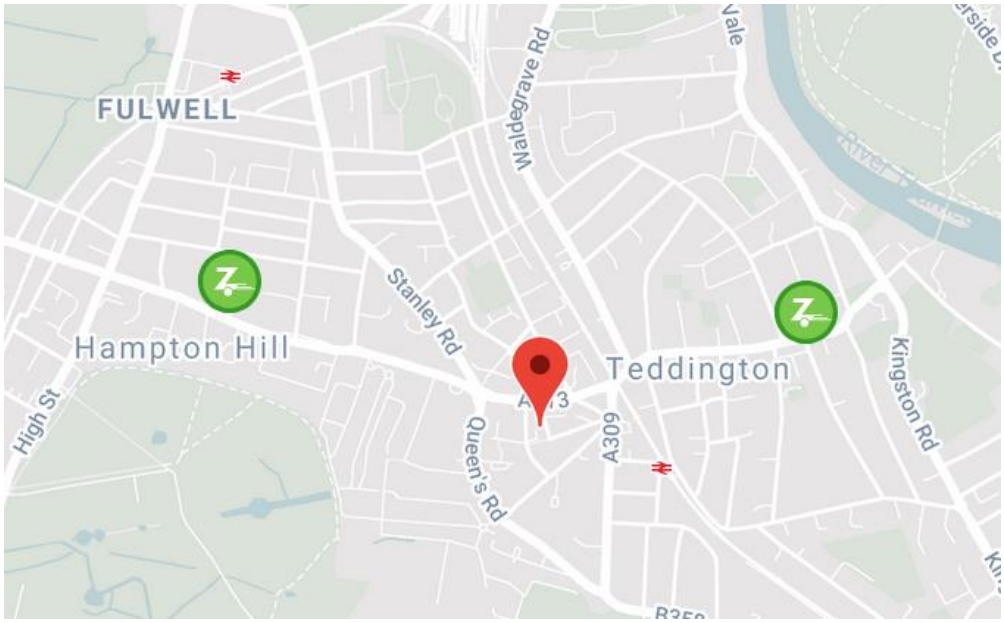
Zipcar has been operating in the borough of Richmond upon Thames since 2006 and is now working in partnership with the council to provide car clubs on-street to residents. We currently have 51 locations in the borough and over 9,000 members. The cars are performing well, being used approximately 8-10 hours a day.

In our opinion a car club could work well at this location given support from the developer in the early phases of the development. The current proximity to local transport links is very good (approximately PTAL 3) which is encouraging for the car club's chances of success, as synergy with public transport links is a key contributor to good car club performance. This makes it likely that the residents of this development will not need a car for work – essential to the success of the scheme.

The low parking on site should ultimately ensure good uptake of the car club. We normally rely on a parking ratio of less than 0.7 to guarantee car club success.

A developer funded marketing package will help ensure demand for the car club on site; the more we are able to incentivise people to try the service, the more people will use it and consequently use other green mobility options. As the map below indicates, there is a network of Zipcar vehicles in the vicinity of the development and as a result, Zipcar would not seek to immediately add further vehicles on site, the existing network is more than sufficient to meet the car club needs of residents. However, as demand grows, we would evaluate the necessity to install a vehicle near the development when required.

Existing Network



North Lane Proposal

Zipcar recommends that residents use the existing network. Zipcar will provide a fully managed service, which includes the following:

- Offering three years' membership to all 16 homes
- Designing all marketing collateral for the development communications team
- Managing the sign-up process (including licence and insurance eligibility processes)
- Monitoring resident and development queries and providing reports (if required as part of S106 requirements) post launch

This comes to a total contribution of **£1,300 +VAT**. This sum is to be paid prior to the date of first occupation.

In exchange Zipcar would commit to a contractual obligation to run the car club operation at the development for a minimum of three years. Each resident that signs up during the three years will receive three years' free membership and Zipcar will offer £50+VAT driving credit per unit at no further cost to the developer. A contribution of **£800 +VAT from Zipcar**.

Zipcar will provide 1 year's free business account (usually £119) for any commercial entity operating from or in conjunction with the site at no further cost to the developer.

The Zipcar development product

Zipcar have over 16 years of experience working with developers, travel planners and local authorities and have met the car club commitment on over 1,000 sites, ranging from ten to thousands of new homes. You will have dedicated support from our London based development specialists and we will support you from planning stage, through to installation and activation at the development.

Zipcar will create bespoke marketing collateral for the development managers and residents and work with our marketing partners to deliver a package that will create awareness of the car club on-site. Where required, Zipcar's operation team will install signage and branding for the Zipcar bays at no further cost to the developer.

Post launch, Zipcar will ensure that there are vehicles in the area to support development trip requests, not a feature of the standard product. We will also provide any necessary reporting data that is required to discharge any reporting clauses of the S106.

Marketing Proposal

A free membership to Zipcar is an excellent marketing tool to utilise with prospective buyers who, due to low parking ratios and parking restrictions, are unable to have their own vehicle on site. We would market the free memberships as a benefit paid for by the developer that provides residents with a cheaper, greener more convenient alternative to private car ownership. In this way Zipcar adds real value to the development and is an excellent solution to the recurring problem of prospective residents not being able to have their own vehicle on site due to a lack of space.

Developer communication

It is vital that the development's communications team promotes and supports the growth of the car club on site. Having a presence online either on the development website or through the residents' portal will ensure that all residents are aware of the transport modes and offers available to them and speed up uptake. Historically we have found most residents will use the service either to move into the property or for the subsequent furniture run within the first three months of occupation. Our marketing team will be able to provide copy or banners for the site, all of which will direct residents to a bespoke landing page educating them about the service.

Bespoke marketing material: This would outline the offers your residents are entitled to. We find that this is crucial in generating early interest in the scheme; these would be part of each residents welcome pack. Additionally we would recommend that a mail shot is sent at a later date reminding residents of the service.

The Zipcar Fleet

Zipcar has a vehicle type for every occasion. This will ensure that your residents get the best possible service, and can find a vehicle to suit their needs. Zipcar membership also includes Zipvan membership – providing our members with convenient access to larger vehicles when required.

Our vehicles are best in class from an emissions perspective. A Zipcar lives in the fleet for a maximum of eight months, ensuring our members are diving the most modern and efficient fleet in any car club across the world.

Model	Weekday Hourly / Daily	Weekend Hourly / Daily
Hyundai i20 / Ford Fiesta	£6 / £54	£7.50 / £65
VW Golf / Ford Focus	£7 / £64	£8.50 /£75
VW GTE (PHEV)	£7 / £64	£8.50 /£75
Audi A3	£8 / £74	£9.50 / £85
Ford CMAX (7 Seater)	£10 / £94	£11.50 / £105
VW Transporter	£10 / £89	£11.50 / £105

Fuel, insurance and 60 free miles per 24 hours are included. Additional miles are 25p per mile (29p for premium vehicles and vans).