



219-227 High Street, Sutton Transport Statement

For Reid Homes

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1. INTRODUCTION

1.1 Overview

- 1.1.1 Hydrock has prepared this Transport Statement (TS) on behalf of Reid Homes to support a full planning application for the redevelopment of 219-227 High Street, Sutton to provide 36 car free residential apartments and 335 sqm of retail at ground floor level.
- 1.1.2 This TS demonstrates that the proposed development is in a suitable, acceptable location for car free development. It provides the necessary information for BREEAM assessment.
- 1.1.3 The TS has been prepared in accordance with industry standards and best practice. It sets out the transport issues relating to the development site (existing conditions) and provides details of the development proposal; including issues associated with accessibility and connectivity.
- 1.1.4 A Residential Travel Plan (RTP) (reference 16336-HYD-XX-XX-RP-TP-6001) has been prepared as a separate document for submission with the planning application. The RTP identifies measures and initiatives to encourage travel to and from the site by sustainable modes of travel.

1.2 Scope of Transport Statement

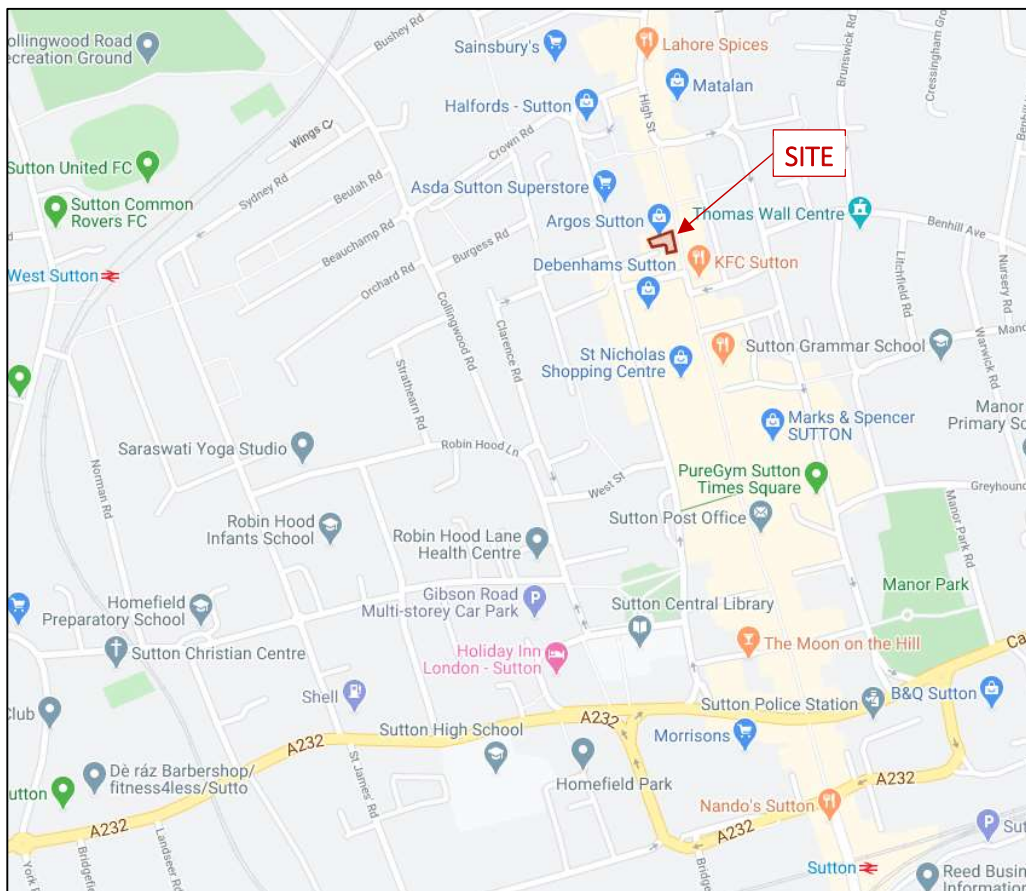
- 1.2.1 This TS has been compiled to reflect the assessment criteria of BREEAM and guidance set out in the National Planning Policy Framework (NPPF) and accompanying National Planning Policy Guidance (NPPG). It also considers advice set out in various local and national guidance documents including; Transport Evidence in Plan Making (DfT), Manual for Streets (DfT), Providing for Journeys on Foot (CIHT) and Local Transport Note 2/08: Cycle Infrastructure Design (DfT).
- 1.2.2 Policy 37 of the Sutton Local Plan (Adopted 2018) suggests that proposals for car free development should normally:
- be located in a PTAL 5 or 6 area.
 - provide disabled parking and parking for operational / servicing needs.
 - enter into a legal agreement prohibiting residents from obtaining on-street parking permits.
 - be located with a Controlled Parking Zone (CPZ) or contribute to the implementation of a CPZ where one does not currently exist.
 - provide evidence that the public transport infrastructure has sufficient capacity to accommodate the increased demand from the development, or make a contribution towards increased capacity.
- 1.2.3 This TS confirms that the proposed development is in a suitable location for car free development, assessed against these criteria.
- 1.2.4 The TS broadly follows the following structure:
- Chapter 2: provides a description of the site and the transport context;
 - Chapter 3: Sets out the accessibility of the site by Non-Car Modes including a description of the local services and facilities, the PTAL rating and the connectivity of the site on foot, by cycle and by public transport.
 - Chapter 4: provides a description of the development proposal including access for all modes, site layout, cycle parking provision and servicing arrangements;
 - Chapter 5: summarises the likely trip generation characteristics of the proposal; and

- Chapter 6: Provides a summary and conclusions.

2. SITE DESCRIPTION AND EXISTING CONDITIONS

- 2.1.1 The proposed development site is located on the pedestrianised section of High Street in Sutton, in the London Borough of Sutton.
- 2.1.2 The site is currently occupied by retail space with Argos taking up the majority of the site. It is bound to the north and west by Asda Superstore, to the south by retail units, and to the east by High Street.
- 2.1.3 The location of the site in its local context is shown in Figure 2-1 and a detailed location plan is provided in Appendix A.

Figure 2-1: Site Location



2.2 Local Highway Network

High Street

- 2.2.1 The High Street, onto which the site fronts, is well lit and pedestrianised along its length. The pedestrian area terminates to the north of the site where Marshall's Road merges into High Street (approximately 110m north of the site) and at the crossing point on the A232 to the south. Dropped kerbs and tactile paving provide level access to the pedestrianised area for mobility impaired users at both ends of this area.
- 2.2.2 To the north of the site, High Street becomes a two-way single carriageway from Angel Hill until the junction with Crown Road where High Street becomes one-way southbound continuing as Marshall's

Road. High Street is well-lit with footways, pedestrian signalised crossings and dropped kerbs and tactile paving present.

- 2.2.3 To the south of the site, the pedestrianised High Street continues for approximately 735 metres with signalised crossing points for the A232; at its junction with the A232 to the south, High Street continues into Brighton Road, providing an onwards connection towards the M25 Junction 8 to the south.

St Nicholas Way and Greenford Road

- 2.2.4 St Nicholas Way is a one-way (northbound) two-lane carriageway to the rear of the site and is subject to a 30mph speed limit. It provides vehicular access to the rear, predominantly for building servicing. Footways and street lighting are provided on both sides of the carriageway.
- 2.2.5 Greenford Road runs to the south and connects High Street and St Nicholas Way.

3. SITE CONNECTIVITY

3.1 Introduction

3.1.1 This chapter sets out the connectivity of the site to the surrounding area by sustainable modes of travel and demonstrates the accessible location of the site.

3.2 Key Distances for Walking and Cycling

3.2.1 Paragraph 2.3 of TA91/05 Provision for Non-Motorised Users states that ‘Walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles’ (3.2km). Paragraph 2.2 of TA91/05 states that 2 miles is ‘a distance that could easily be walked by the majority of people’ and (at paragraph 2.3) that ‘Walking and rambling can also be undertaken as a leisure activity, often over longer distances’. In relation to shorter trips in particular, the CIHT publication Planning for Walking (section 2.1) states that across Britain about ‘80% of journeys shorter than 1 mile (1.6km) are made wholly on foot’.

3.2.2 Manual for Streets (paragraph 4.4.1) states that ‘walkable neighbourhoods’ are typically characterised by having a range of facilities within 10 minutes (up to 800m) walking distance of residential areas which residents may access comfortably on foot, although that this is not an upper limit.

3.2.3 With regard to cycling, TA91/05 goes on to state (in paragraph 2.11) that ‘Cycling is used for accessing a variety of different destinations, including educational facilities shops and places of work, up to a range of around 5 miles. Cycling is also undertaken as a leisure activity, often over much longer distances.’ At paragraph 2.9, TA91/05 states that 5 miles (8km) is a distance ‘that could easily be cycled by the majority of people’.

3.2.4 This is consistent with the statement in LTN02/08 Cycle Infrastructure Design (in paragraph 1.5.1) that ‘for commuter journeys, a trip distance of over five miles is not uncommon’, and that ‘Novice and occasional leisure cyclists will cycle longer distances where the cycle ride is the primary purpose of their journey. A round trip on a waymarked leisure route could easily involve distances of 20 to 30 miles. Experienced cyclists will often be prepared to cycle longer distances for whatever journey purpose.’

3.2.5 For the purpose of this note therefore, key distances are considered to be as follows:

- 800m – walkable neighbourhood;
- 1.6km - reasonable walking distance, over which most journeys will be undertaken on foot;
- 3.2km - maximum walking distance; and
- 8km - reasonable cycling distance.

3.2.6 In addition, the 500m distance required for BREEAM assessment purposes is also considered.

3.3 Local Facilities and Amenities

3.3.1 The Department of Transport’s National Travel Survey (NTS) identifies that the main reasons for travelling are for leisure, commuting/business, shopping and education¹. These are also the key journey purposes identified by paragraph 104. of the NPPF. The following section identifies the facilities and amenities available for these journey purposes within the key travel distances identified above.

¹ Table TSGB0104 (NTS0409) of Transport Statistics Great Britain – 2018 Edition

3.3.2 The distances to local relevant facilities and amenities are shown in Table 3-1. This highlights that future residents of the development will be able to access a range of local facilities on foot and by bike within appropriate walking and cycling distances.

Table 3-1: Proximity of the site to Local Facilities and Amenities

Category	Facility / Amenity	Walking and Cycling Distance from Centre of Site	Travel Time (minutes) from centre of site	
			Walking	Cycling
Education	Robin Hood Junior School	322m	4	1
	Sutton College	644m	8	2
	Manor Park Primary School	644m	8	2
	Sutton High School	805m	10	3
Health	Asda Pharmacy*	<100m	<1	<1
	Benhill GP Centre*	483m	6	2
	St Helier Hospital	2414m	30	8
Leisure	The Gym	160m	2	<1
	Empire Cinemas	322m	4	1
	PureGym	483m	6	2
Retail / Food and Drink	Asda Superstore*	<100m	<1	<1
	Tim's Café	<100m	<1	<1
	Taco Bell	<100m	<1	<1
	KFC	<100m	<1	<1
	St Nicholas Shopping Centre	150m	2	<1
	Sainsbury's	160m	2	<1
	The Crown Pub*	200m	3	<1
	Times Square Shopping Centre	483m	6	2
Services	Cash Point, within Asda*	<100m	<1	<1
	Post Box, Benhill Road*	<100m	<1	<1
	Sutton Post Office	322m	4	1
	Sutton Central Library	644m	8	2
	Victoria Park*	420m	8	2
	Thomas Wall Centre (Village Hall)*	350m		
	Sutton Community Baptist Church*	250m	8	1
Transport	High Street Marshalls Road Bus Stop C	150m	2	<1
	Benhill Avenue Bus Stop E	160m	2	<1
	St Nicholas Centre Bus Stop W	160m	2	<1
	Zipcar	483m	6	2
	Sutton Train Station	805m	10	3
	Sutton Common Train Station	966m	12	3
	West Sutton Train Station	1127m	14	4

Note: Based on walking speeds of 80 metres per minute and cycling speeds of 320 metres per minute

* Facilities required for assessment of BREEAM Credit under TRA02

Key:

Key
Represents a facility within 500m as required by BREEAM Assessment
Represents a facility within a 'walkable neighbourhood' of 800m

Represents a facility within a 'reasonable' walking distance of 1.6km

Represents a facility within a 'maximum' walking distance of 3.2km or a 'reasonable' cycling distance of 8km

3.3.3 Table 3-1 demonstrates that there is a range of facilities within close proximity to the site, most of which are within an 800m 'walkable neighbourhood' as defined by Manual for Streets. The site is therefore a highly sustainable location offering opportunity for residents of the development to make trips via sustainable modes of travel, such as walking and cycling.

3.3.4 The site is within 500m of the various facilities required for BREEAM credit TRA02. The distances to these are given in Table 3-1 and the facilities include:

- Grocery shop – the site is located directly adjacent to an Asda foodstore
- Post box - there is a post box on the corner of Benhill Avenue/Greenford Road
- Cash Machine – there is a cash machine is within Asda. There are various other ATMS located on High Street;
- Pharmacy – there is a Pharmacy within Asda;
- GP Surgery – there are a number of GP surgeries within a short walk, the nearest being Benhill GP Centre on Benhill Avenue;
- Leisure/sports centre – there are various gyms/leisure clubs located on Sutton High Street;
- Outdoor public open space – the closest public open space is at Victoria Gardens to the north of the site;
- Public house - there are various public houses located in the vicinity of the site, including The Crown at the High Street/Crown Road junction to the north of the site;
- Community Centre – the closest Community Centre is the Thomas Wall Centre (village hall) on Benhill Avenue; and
- Place of Worship – there are a number of places of worship within a short walking distance of the site, the nearest being Sutton Community Baptist Church.

3.4 Walking and Cycling

3.4.1 The High Street, onto which the site fronts, is pedestrianised along its length. Therefore, the site frontage is well lit and has well established pedestrian infrastructure. The pedestrianised area terminates to the north of the site where Marshall's Road merges into High Street (approximately 110m north of the site) and at the crossing point on the A232 to the south. Dropped kerbs and tactile paving provide level access to the pedestrianised area for mobility impaired users, including visually impaired users at both ends of this area.

3.4.2 The application site is located within a town centre environment, characterised by a number of shops, restaurants/fast food, supermarkets and a variety of independent stores. In the wider vicinity of the site, residential areas surround the site with schools in close proximity.

3.4.3 Both formal and informal cycle routes surround the site, providing an attractive, safe cycling environment for non-motorised users. This is shown in Figure 3-1 and Figure 3-2.

Figure 3-1: Cycle Network

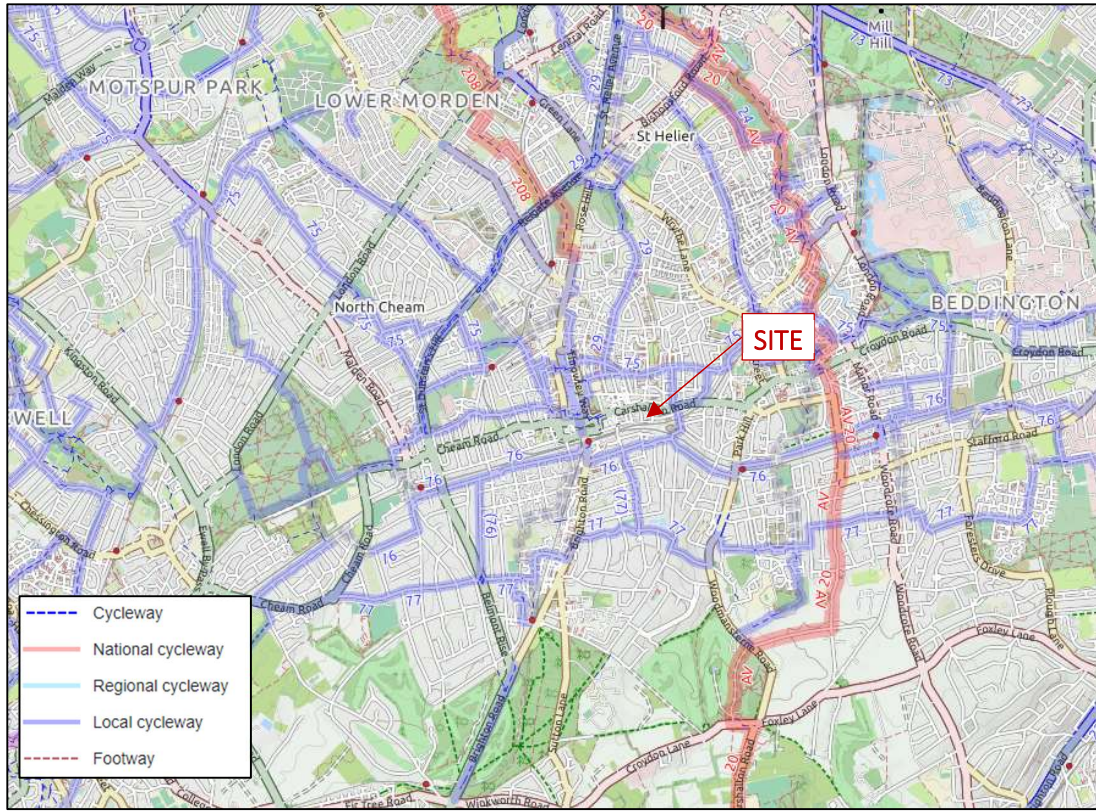
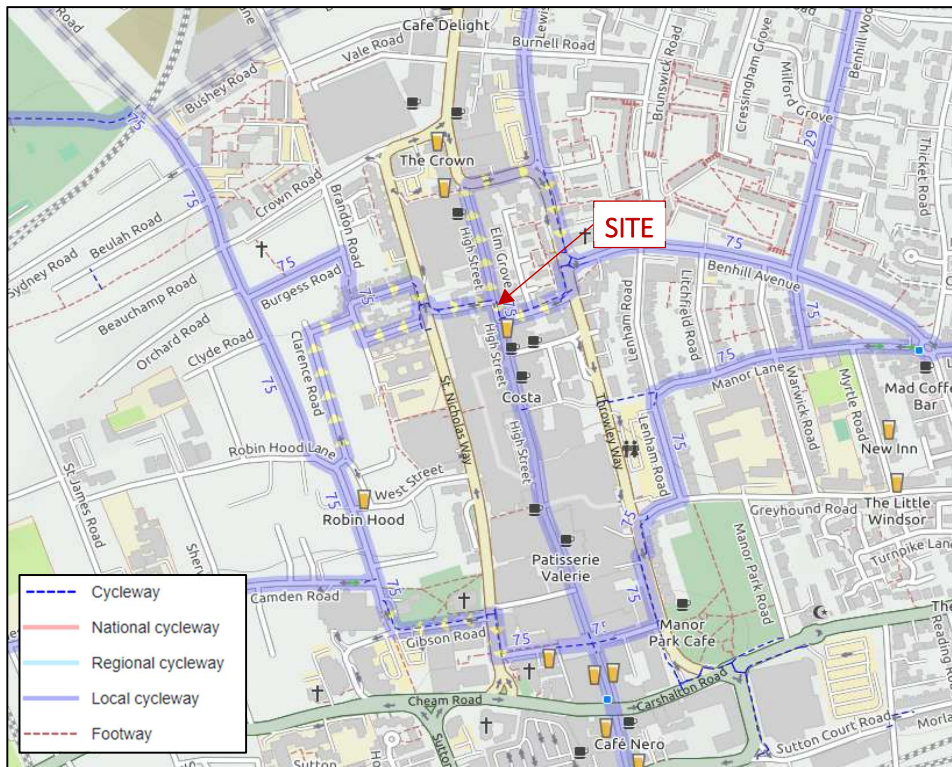


Figure 3-2: Local Cycle Network



3.4.4 National Cycle Network (NCN) Route 208 is a south London route and runs from Raynes Park to Morden; this can be accessed via the local cycleways that connect directly to the site. Additionally, NCN

route 20 is a 12-mile trail along the River Wandle in South London and NCN Route 22 links London with Portsmouth.

3.4.5 Along the High Street, Sheffield style cycle standards are provided for visitor cycle parking.

3.5 Taxis and Car Clubs

3.5.1 Zipcar is the UK's biggest and most popular car sharing club and there is a Zipcar hub within 6 minutes walking distance from the site. Members of the service can rent cars by the hour or day, accessing the vehicles using a special card (called a "Zipcard") or the company's mobile app. The membership includes fuel, parking, congestion charge and insurance.

3.5.2 Therefore, this is considered a good alternative to car ownership for future residents of the car-free development. Zipcar is a good addition to the extensive public transport options in the area.

3.5.3 The nearest taxi rank is at Sutton Station, some 805m / 10-minute walk from the site.

3.6 Public Transport

Overview

3.6.1 The following section of the TS provides a summary of the local bus and rail services available within the vicinity of the site.

3.6.2 The site is located in Greater London and has therefore been assessed using WebCAT tool; WebCAT provides information on London's transport system to the professional planning community. This connectivity assessment toolkit allows planners to measure public transport access levels (PTAL) and produce travel time reports and statistics. The toolkit contains two ways of measuring transport connectivity:

- PTAL assesses connectivity (level of access) to the transport network, combining walk time to the public transport network with service wait times
- Time Mapping analysis (TIM) assesses connectivity through the transport network or, in other words, how far a traveller can go expressed as a series of travel time catchments

3.6.3 The PTAL report is shown in C. The PTAL assessment shows that the site achieves PTAL 6a which is a top ranking of connectivity and highlights the sustainable location of the site with very good public transport links. The site therefore meets SC's Policy of locating car free development in PTAL 5 or 6 locations.

Bus

3.6.4 The site is well supported by a comprehensive high frequency bus network which is shown in Appendix B and summarised in Table 3-2. The nearest bus stops are located to the north of the site on High Street, and to the south west on St Nicholas Way. Both bus stops are provided with covered, seated bus shelters.

Table 3-2: Bus Service Provision

Service	Operator	Route Summary	Frequency
80	TfL	Downview – Reynolds Close	Mon – Fri: 04:57 – 01:06 at least every 14 mins Sat: 04:47 – 01:06 every 10 mins Sun: 06:43 – 01:06 every 15 mins
151	TfL	Shotfield – Worcester Park Station	Mon – Fri: 05:17 – 00:22 every 9-13 mins Sat: 05:17 – 00:23 every 8-10 mins between 09:00 to 18:00 Sun: 06:27 – 00:22 every 20 mins
164	TfL	Sutton Station – Francis Grove	Mon – Fri: 04:47 – 01:08 every 9-11 mins Sat: 04:47 – 01:09 every 8-10 mins between 08:00 to 18:00 Sun: 04:47 – 01:08 every 15 mins
280	TfL	St George’s Hospital – Belmont Station / Brighton Road	Mon – Fri: 05:11 – 00:28 every 12-13 mins Sat: 05:11 – 00:28 every 12-13 mins between 11:00 to 19:00 Sun: 05:11 – 00:28 at least every 20 mins
413	TfL	Sutton Bus Garage – Morden Station	Mon – Fri: 06:11 – 01:43 every 20 mins Sat: 06:11 – 01:43 every 15 mins Sat: 07:39 – 01:43 every 30 mins
470	TfL	Colliers Wood Station – Epsom High Street	Mon – Fri: 06:45 – 20:55 every 30 mins Sat: 06:45 – 20:55 every 30 mins
S1	TfL	Banstead / Marks & Spencer – Victoria Road / Lavender Fields	Mon – Fri: 05:42 – 00:06 every 15/20 mins Sat: 05:41 – 00:06 every 15/20 mins Sun: 07:01 – 00:06 every 20 mins
S3	TfL	Belmont Station – Malden Manor Station	Mon – Fri: 06:27 – 21:37 every 20 mins Sat: 06:27 – 21:37 every 20/30 mins

Rail

3.6.5 The nearest railway station to the site is Sutton Station which is located 805m away (10-minute walk). This station provides frequent services to St Albans City (Thameslink), Epsom and Epsom Downs (Southern), and London Victoria (Southern), amongst others. Rail therefore offers a viable option for residents of the site travelling to and from work and for other day to day activities that require further distances.

Public Transport Capacity

3.6.6 Section 5 demonstrates that the proposed use is likely to be less trip intensive than the existing use of the site. No assessment of public transport capacity is therefore required for this small-scale proposal.

3.7 Summary

3.7.1 The site is in a highly sustainable central location and is well suited to provide opportunities for travel on foot, by cycle and by public transport. The High Street is pedestrianised and provides level access with dropped kerbs and tactile/corduroy paving to support mobility impaired users. There is a full range of facilities and services within a short walking distance for residents to access.

3.7.2 The site is within PTAL Zone 6a and bus stops providing frequent services are located close to the site offering a viable choice of travel for residents needing to travel afield. Sutton Station is a 10-minute walk.

3.7.3 The location of the development will enable active and sustainable travel to and from the site for the daily journey needs of residents.

4. DEVELOPMENT PROPOSAL

Overview

- 4.1.1 The proposal is for car free development and will consist of 335 sqm of retail at ground floor level and 36 residential apartments above. The proposed site layout is provided in Appendix D.
- 4.1.2 The residential element of the proposal comprises 17 x 1-bed, 16 x 2-bed and 3 x 3-bed apartments.

Pedestrian and Cycle Access

- 4.1.3 Pedestrian and cycle access to the apartments will be from High Street. The retail unit will be accessed directly from High Street for both pedestrians and cyclists.
- 4.1.4 Access will be level and suitable for mobility impaired users, including those with visual impairments.

Car Parking

- 4.1.5 This is a car-free development and therefore there will be no vehicular access or car parking provided. On-street parking within the surrounding area is restricted to permit holders only or pay and display with a maximum stay of 2 hours, and High Street is pedestrianised. These restrictions will ensure that the development is car free by preventing residents from owning a car and parking it on-street.
- 4.1.6 There are numerous car parks associated with the nearby shopping centre that can accommodate short-stay parking where necessary for future visitors to the site.
- 4.1.7 Dedicated disabled parking bays are available on-street at the following locations:
- Elm Grove (1 bay) - 90m from the site via the cut between High Street and Elm Grove
 - Manor Place (2 bays) - Approximately 125m south of the site
 - Benhill Avenue (4 bays) - Approximately 130m south east of the site
 - Marshall's Road (2 bays) - Approximately 150m north of the site
- 4.1.8 Additionally, both the Asda and St Nicholas Shopping Centre car parks nearby provide disabled car parking for mobility impaired users.
- 4.1.9 The locations of these disabled parking spaces are shown in Figure 4.1.

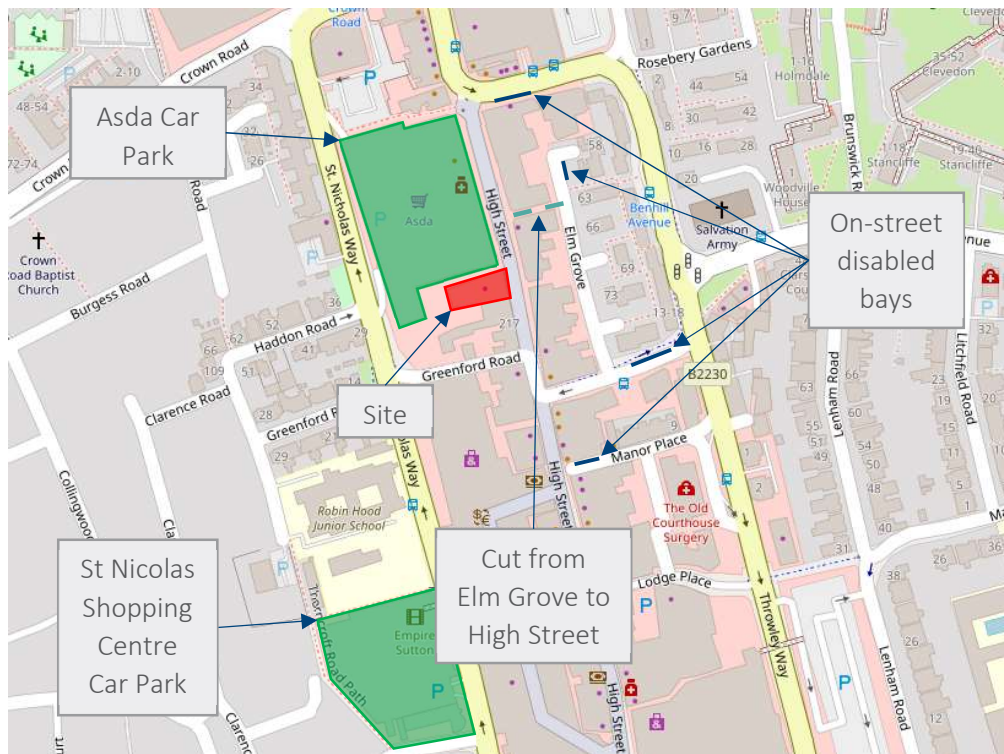


Figure 4.1: Disabled parking locations

4.1.10 Disabled parking is therefore catered for in multiple on-street bays around 2 to 3 minutes walk of the site, with further provision in local off-street car parks within a 5-minutes walk.

Cycle Parking

4.1.11 SC's cycle parking standard as set out in Appendix 11 of the Local Plan requires the following cycle parking:

- Residential use:
 - » 1 space per studio / 1-bed apartment;
 - » 2 spaces per 2-bed / 3-bed apartment;
 - » 1 space per 40 dwellings, subject to a minimum of 2-spaces.
- Non-food retail use:
 - » 1 space per 250m long stay and 1 space per 125m short stay; or
 - » A contribution towards funding further public cycle parking.

4.1.12 On the basis of the above, standards require and total of 62 cycle parking spaces calculated as follows:

- 17 x 1-bed @ 1 space per dwelling = 17 spaces
- 16 x 2-bed @ 2 spaces per dwelling = 32 spaces
- 3 x 3-bed @ 2 spaces per dwelling = 6 spaces
- Additional short stay = 2 spaces
- 335sqm Retail:
 - » 1 space per 250sqm long stay = 2 long stay

» 1 space per 125sqm short stay = 3 short stay

- Total: 62 spaces

4.1.13 A secure bicycle store is proposed on the ground floor of the building to accommodate this cycle parking.

Servicing

4.1.14 A bin store with separate service access is provided to the rear of the building for both the residential and retail uses.

4.1.15 Delivery access is to the rear of the building, using the shared service yard to the rear. The site has a legal, right of access enabling the use of this service area and management procedures will be put in place to give access for refuse vehicles.

Emergency Vehicle Access

4.1.16 While High Street is pedestrianised, access to this area is available to emergency vehicles. There is further access to the rear of the building from St Nicholas Road for emergency vehicles.

5. TRAVEL PATTERNS

5.1 Existing Retail Use

5.1.1 The site was formerly an Argos store. The TRICS database has only limited information for this type of retail use. A person trip rate for 'other individual non-food superstore' has been applied to this use, based on surveys in town centre and edge of town centre locations. The trip rate and estimated trip generation of the existing site use is given in Table 5-1 and the TRICS outputs are provided in Appendix E.

Table 5-1: Person Trips to Existing Retail Use

	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arr	Dep	Tot	Arr	Dep	Tot
Non-food Superstore Trip Rate	0.245	0.109	0.354	2.208	2.563	4.771
1,263sqm Argos Store Person Trips	3	1	4	28	32	60

5.1.2 Table 5-1 demonstrates that the existing retail use has the potential to generate:

- Circa 4 person trips during the morning peak hour (likely to be staff trips before store opening);
- Circa 60 person trips during the evening peak hour.

5.1.3 To understand the likely breakdown of trips by mode, WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level) data has been used with Sutton 012 Ward as the destination; this has been obtained from the 2001 census. Based on this data, Table 5-2 below sets out the estimated mode share for peak hour trips (excluding journeys by single occupancy car and working from home).

Table 5-2: Mode Share for Existing Retail Use

Mode	Modal Split	AM Peak	PM Peak
Underground, metro, light rail or tram	5%	0	3
Train	20%	1	12
Bus, minibus or coach	37%	2	22
Taxi	0%	0	0
Car Sharing	5%	0	3
Bicycle	5%	0	3
On Foot	29%	1	17
Total	100%	4	60

5.2 Proposed Use

Residential

5.2.1 A total person trip rate has been obtained from the TRICS trip generation database to give an indication of the likely trip generation of the proposed uses. The person trip rate includes trips made by all modes

of travel. The trip rate obtained is for private residential apartments and includes town centre sites in Greater London locations only. The trip rate and resulting trip generation is given in Table 5-3 and the TRICS outputs are provided in Appendix E.

Table 5-3: Proposed Use – Residential Trip Generation

	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arr	Dep	Tot	Arr	Dep	Tot
Residential Apartments – Trip Rate	0.086	0.518	0.604	0.255	0.121	0.376
36 Residential Apartments Person Trips	3	19	22	9	4	14

5.2.2 To understand the likely breakdown of trips by mode, WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level) data has been used with Sutton 012 Ward as the origin; this has been obtained from the 2001 census. Based on this data, Table 5-4 below sets out the estimated mode share for peak hour trips (excluding journeys by single occupancy car and working from home).

Table 5-4: Mode Share for Residential Trips

Mode	Modal Split	AM Peak	PM Peak
Underground, metro, light rail or tram	12%	3	2
Train	33%	7	5
Bus, minibus or coach	22%	5	3
Taxi	0%	0	0
Car Sharing	4%	1	1
Bicycle	3%	1	0
On Foot	26%	6	4
Total	100%	22	14

Retail

5.2.3 The site is in a town centre location and the small size of the ground floor retail units means that these units are likely to be visited as part of a wider trip to the town centre – they are unlikely to be destinations in their own right. A trip rate has therefore not been calculated for these units.

5.3 Net Change

5.3.1 The site is predicted to generate an additional 18 person trips in the morning peak hour, compared with the existing use. These trips will be spread across modes and the impact on any one mode will be negligible.

5.3.2 In the evening peak hour, the site is expected to generate some 46 fewer person trips than the existing use.

6. SUMMARY AND CONCLUSIONS

6.1 Summary

- 6.1.1 Hydrock has prepared this Transport Statement (TS) on behalf of Reid Homes to support a full application for the redevelopment of 219-227 High Street, Sutton to provide 36 car free residential apartments and 335 sqm of retail at ground floor level.
- 6.1.2 This TS has been compiled to reflect the assessment criteria of BREEAM and confirms that the proposed development is in a suitable location for car free development, assessed against the requirements of the Sutton Local Plan.

6.2 Conclusions

- 6.2.1 The site is in a highly sustainable location in Sutton town centre, with access to a suitable range of local facilities and services within a short walking distance.
- 6.2.2 It is located in a pedestrianised environment with well-established and good quality facilities for pedestrians, including mobility impaired users. It has excellent access to public transport and is rated PTAL Area 6a.
- 6.2.3 No on-site car parking is required or provided. Disabled parking is available in local on-street bays and nearby public car parks. The surrounding streets are subject to on-street parking controls that will prevent occupiers of the proposed apartments from owning a car.
- 6.2.4 Secure cycle storage is proposed in line with SC's guidance. Suitable arrangements are also made for bin storage and servicing for the retail units.
- 6.2.5 This small-scale proposal is predicted to result in a small increase in person trips in the morning peak hour, which will be spread across modes with the impact on any one mode being negligible. A significant reduction in person trips is forecast in the evening peak hour. The negligible impact of these changes means that no assessment of public transport capacity is required.
- 6.2.6 Assessed against the criteria given in Policy 37 of the Adopted Local Plan, the site is therefore a suitable, accessible location for a car free residential development. There are no significant highways or transportation matters that should preclude the Local Planning Authority from approving this planning application.

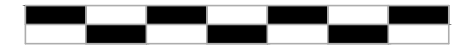
Appendix A Location Plan

This drawing is subject to copyright and is not to be reproduced in part or whole without approval.
Do not scale this drawing - check all dimensions on site.

Health & Safety Notes

- Contractor must ensure that all work on site is carried out in a safe & satisfactory manner, in accordance with Health & Safety At Work Act 1974, COSHH Regulations 2002 & requirements of C.D.M

0 10 20 30 40 50 60 70m



1:1250 SCALE BAR - METRES



 <p>Cassidy+Ashton www.cassidyashton.co.uk</p> <p>Architecture + Building Surveying + Town Planning</p> <p>7 East Cliff, Preston, Lancashire, PR1 3JE 01772 258 356 10 Hunters Walk, Canal Street, Chester, CH1 4EB 01244 402 900</p>	Client Reid Capital		Drawing Title Existing Site Plan		
	Project Residential Development, Sutton		Drawn by PD	Checked by DBT	Date 12.03.20
			Status Pre-Application	Scale @ A3	As Indicated
	Job no. 10197	Dwg.no. 1001	Rev.		

Appendix B Bus Network

Buses from Sutton

Route finder

Bus route	Towards	Bus stops
80	Belmont	B C E I J K O
	Hackbridge	P R V W Y
151	Wallington	U V W Y
	Worcester Park	B C E I J K S T
154 24hr Weekend	Morden	G H Y
	West Croydon	B F X
164	Wimbledon	P Q R V W Y
213 24hr Daily	Kingston	B C E I J K S T
	Belmont	B C E I J K O
280	Tooting	P R V W Y
407	Caterham	D I J K
413	Morden	B C E I J K S T
470	Colliers Wood	A C R V W Y
S1	Epsom	A B C E I J K
	Banstead	B C E I J K O
S3	Lavender Fields	P R V W Y
	Malden Manor	P R V W Y
	Sutton Hospital	B C E I J K O
S4	Roundshaw	A B G I J K
	St. Helier	A C F R V W X
X26 Express	Heathrow Airport	S
	Croydon	L

Night buses

Bus route	Towards	Bus stops
N44	Aldwych	P O R V W Y

Other buses

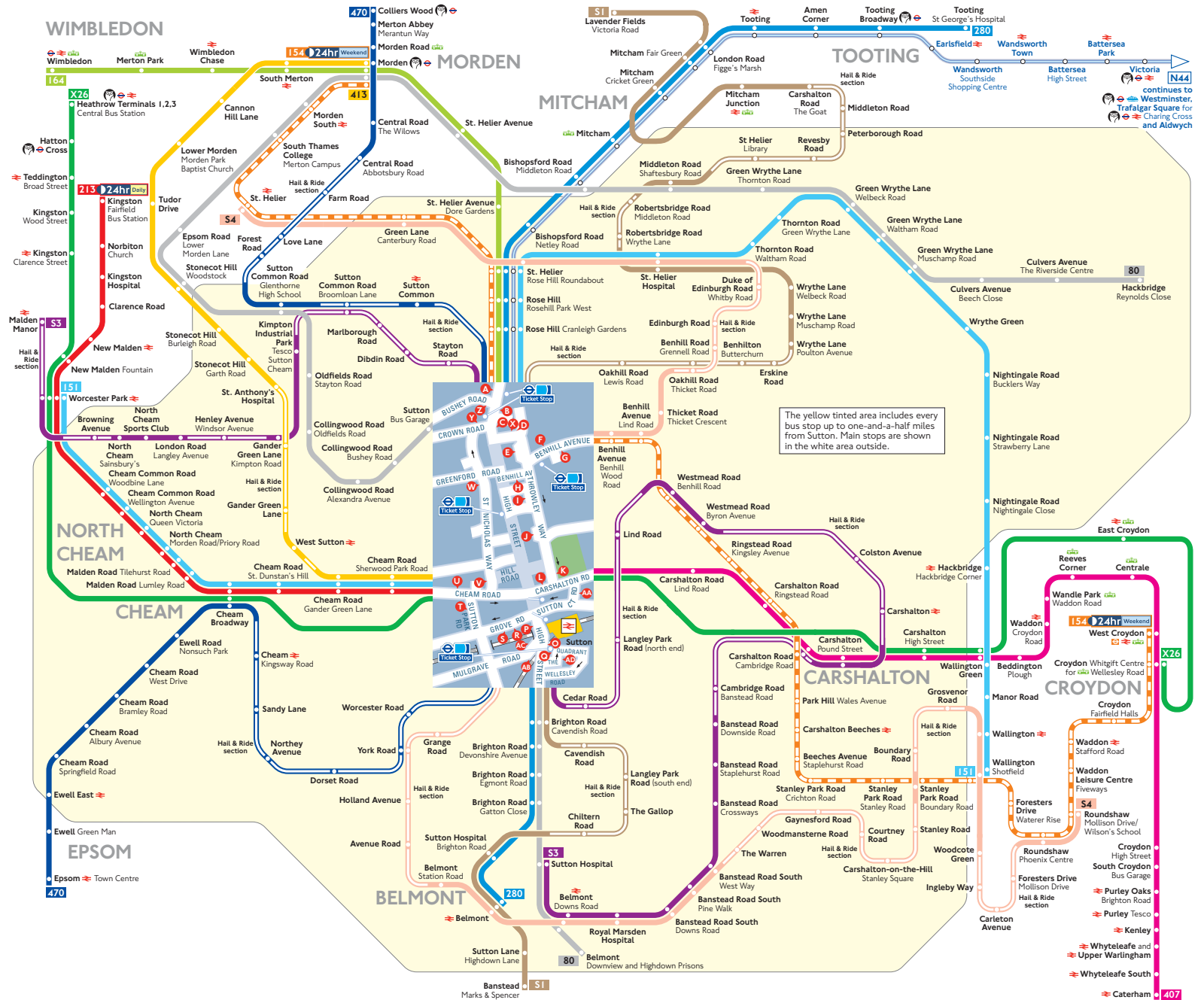
Bus route	Towards	Bus stops
420	Redhill (Whitebuses)	B C E I J K O
A3 24hr Daily	Gatwick Airport	A B I

Key

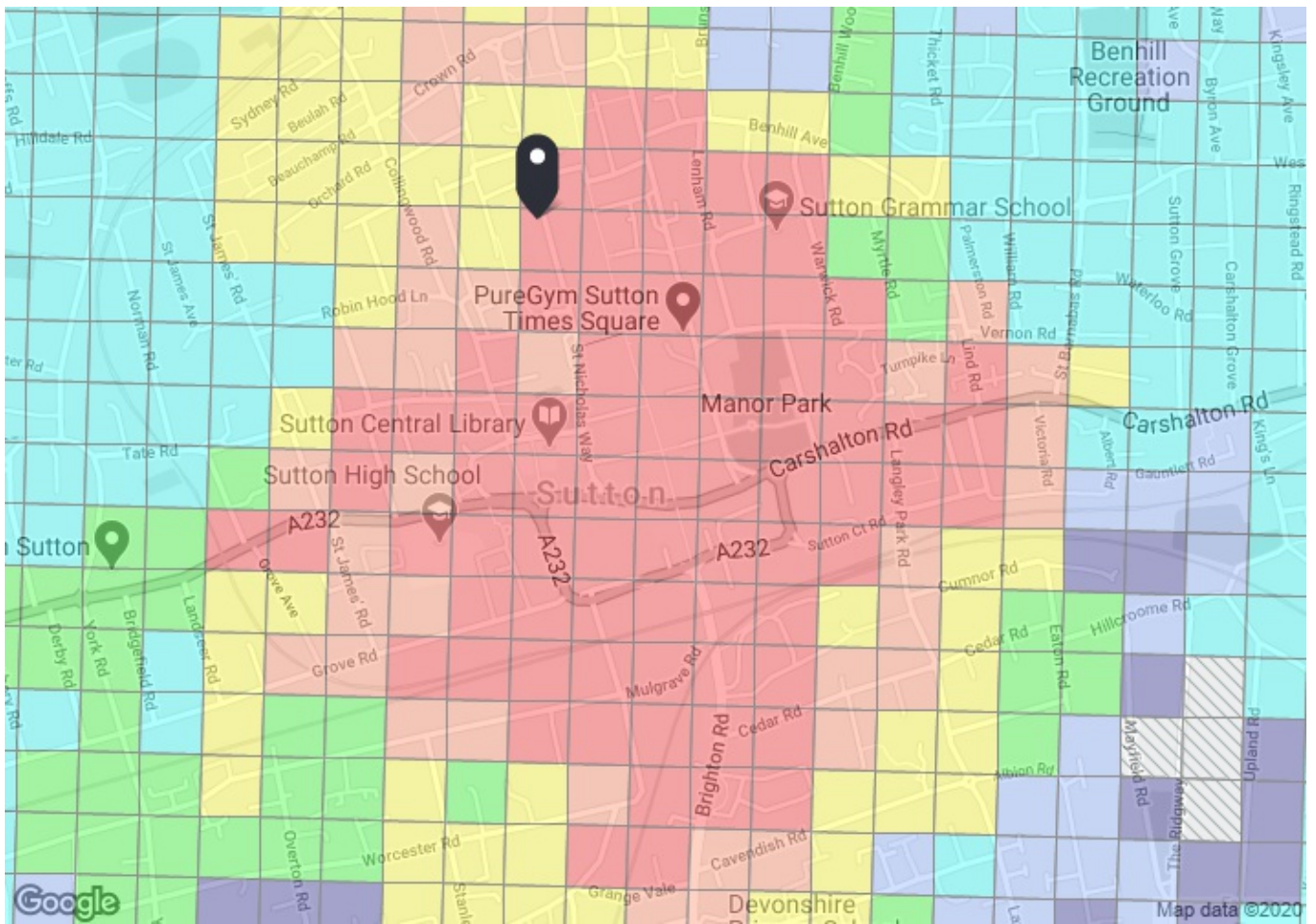
- 80 Day buses in black
- N44 Night buses in blue
- Connections with London Underground
- Connections with London Overground
- Connections with National Rail
- Connections with Tramlink
- Connections with river boats
- ★ Mondays to Saturdays
- ⊕ Mondays to Saturdays, not evenings
- ⊕ Except evenings. Some buses continue to Gatwick Airport and also on Sundays to Crawley
- ◆ Limited stop service
- Operates daily with 24-hour service Friday and Saturday nights
- Tube station with 24-hour service Friday and Saturday nights when Night Tube services operate

Ways to pay

- Use your contactless debit or credit card. It's the same fare as Oyster and there is no need to top up.
- Top up your Oyster pay as you go credit or buy Travelcards and bus & tram passes at around 4,000 shops across London.
- Sign up for an online account to top up online and see your travel history and spending



Appendix C PTAL Report



PTAL output for Base Year 6a

London Sutton (Town Centre), Sutton SM1 1WA, UK
 Easting: 525727, Northing: 164470

Grid Cell: 13686

Report generated: 20/08/2020

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

Map key - PTAL

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

Map layers

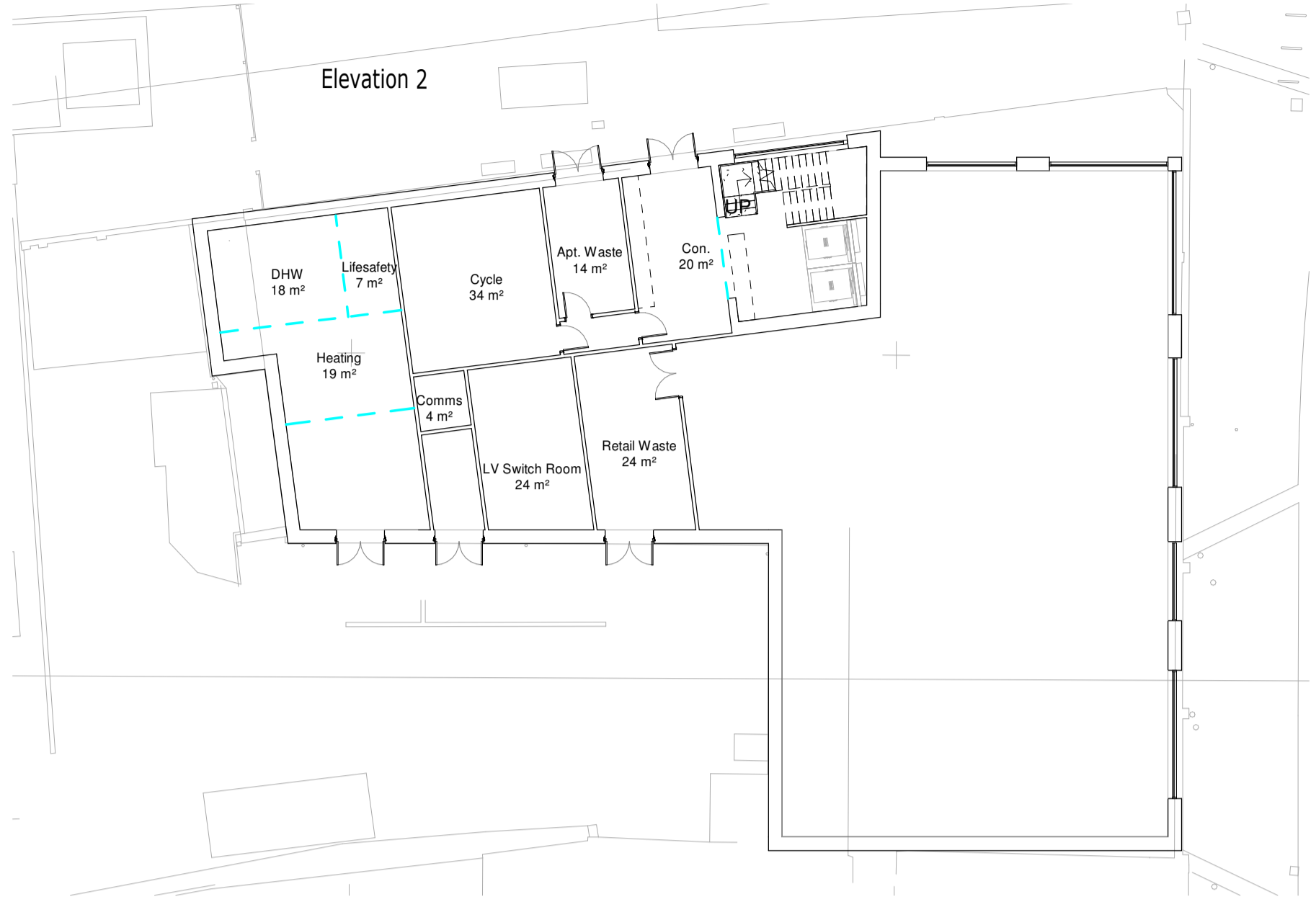
- PTAL (cell size: 100m)

Calculation data

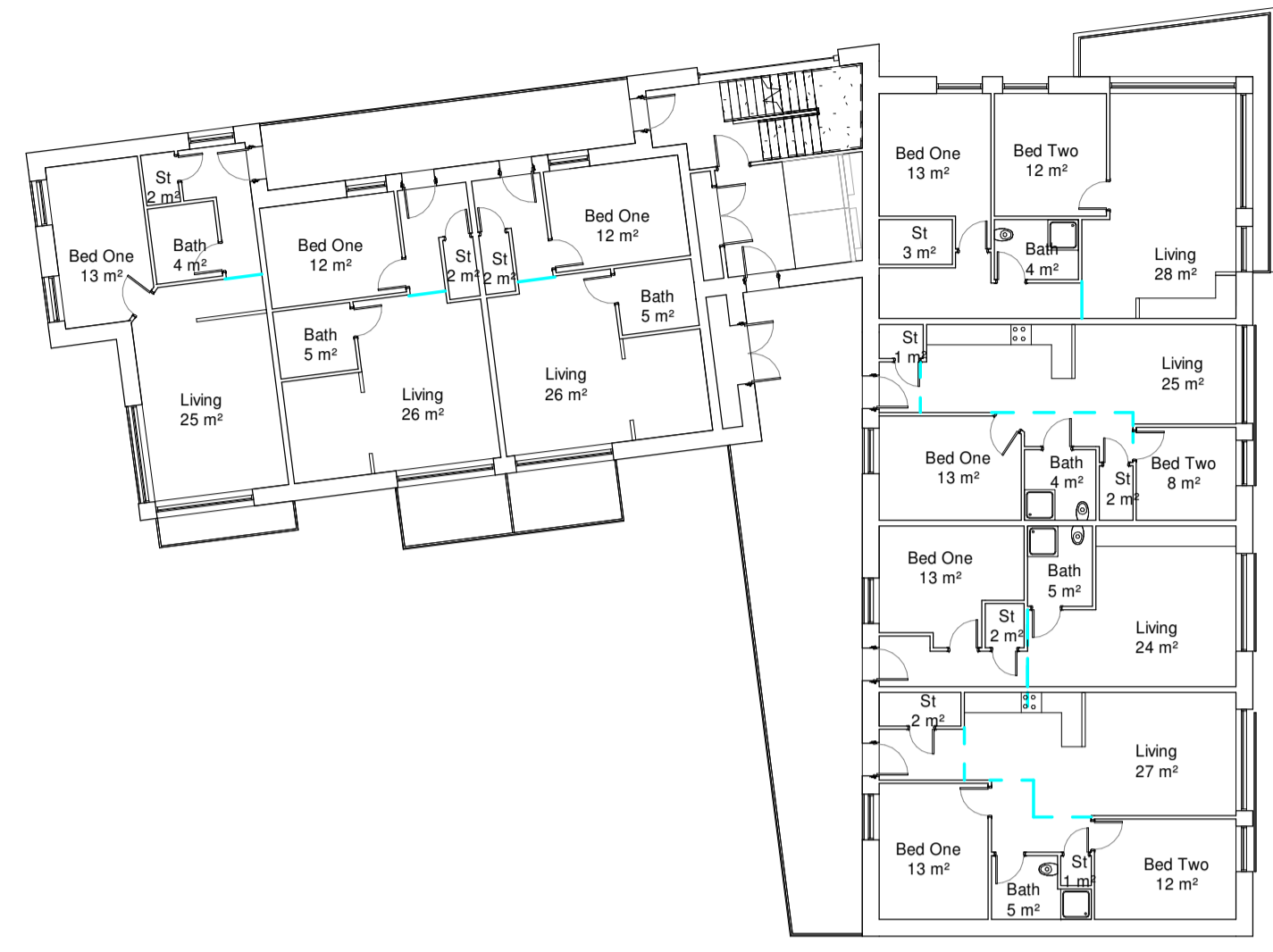
Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	ST NICHOLAS CENTRE	151	37.55	6	0.47	7	7.47	4.02	0.5	2.01
Bus	ST NICHOLAS CENTRE	S3	37.55	3	0.47	12	12.47	2.41	0.5	1.2
Bus	ST NICHOLAS CENTRE	413	37.55	4	0.47	9.5	9.97	3.01	0.5	1.5
Bus	ST NICHOLAS CENTRE	80	37.55	6	0.47	7	7.47	4.02	0.5	2.01
Bus	ST NICHOLAS CENTRE	S1	37.55	4	0.47	9.5	9.97	3.01	0.5	1.5
Bus	ST NICHOLAS CENTRE	407	37.55	4	0.47	9.5	9.97	3.01	0.5	1.5
Bus	ST NICHOLAS CENTRE	164	37.55	6	0.47	7	7.47	4.02	0.5	2.01
Bus	ST NICHOLAS CENTRE	470	37.55	2	0.47	17	17.47	1.72	0.5	0.86
Bus	ST NICHOLAS CENTRE	S4	37.55	2	0.47	17	17.47	1.72	0.5	0.86
Bus	ST NICHOLAS CENTRE	213	37.55	7.5	0.47	6	6.47	4.64	1	4.64
Bus	ST NICHOLAS CENTRE	280	37.55	6	0.47	7	7.47	4.02	0.5	2.01
Bus	BENHILL AVE THROWLEY WAY	154	296.09	5	3.7	8	11.7	2.56	0.5	1.28
Bus	SUTTON PARK ROAD	X26	564.92	2	7.06	17	24.06	1.25	0.5	0.62
Rail	Sutton	'WIMBLDN-LNDNBDC 2E6Z'	768.97	1.67	9.61	18.71	28.33	1.06	1	1.06
Rail	Sutton	'LNDNBDC-EPSM 2E91'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-LNDNBDC 2U06'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'EPSM-LNDNBDC 2U70'	768.97	1	9.61	30.75	40.36	0.74	0.5	0.37
Rail	Sutton	'GUILDFD-LNDNBDC 2U98'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'BEDFDM-SUTTON 1O13'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'BEDFDM-SUTTON 1V23'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'BEDFDM-SUTTON 1V82'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-LUTON 2O00'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-BEDFDM 2O04'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-STALBCY 2O06'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-LUTON 2O10'	768.97	1	9.61	30.75	40.36	0.74	0.5	0.37
Rail	Sutton	'LUTON-SUTTON 2O17'	768.97	0.67	9.61	45.53	55.14	0.54	0.5	0.27
Rail	Sutton	'STALBCY-SUTTON 2O21'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'STALBCY-SUTTON 2O29'	768.97	0.67	9.61	45.53	55.14	0.54	0.5	0.27
Rail	Sutton	'SUTTON-STALBCY 2V02'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-STALBCY 2V08'	768.97	0.67	9.61	45.53	55.14	0.54	0.5	0.27
Rail	Sutton	'BEDFDM-SUTTON 2V15'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-BEDFDM 2V16'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'LUTON-SUTTON 2V19'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-KNTSHTN 2V20'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'STALBCY-SUTTON 2V27'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'LUTON-SUTTON 2V31'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-SUTTON 2B90'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-VICTRIC 2B91'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'HORSHAM-VICTRIC 2E03'	768.97	1	9.61	30.75	40.36	0.74	0.5	0.37
Rail	Sutton	'VICTRIC-HORSHAM 2E04'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'DORKING-VICTRIC 2E07'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'HORSHAM-VICTRIC 2E09'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'EPSM-VICTRIC 2E11'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-HORSHAM 2E12'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'HORSHAM-VICTRIC 2E13'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-HORSHAM 2E14'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-EPSM 2E16'	768.97	1	9.61	30.75	40.36	0.74	0.5	0.37
Rail	Sutton	'DORKING-VICTRIC 2E17'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-DORKING 2E18'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-HORSHAM 2E22'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'GUILDFD-VICTRIC 2E95'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-VICTRIC 2R05'	768.97	0.67	9.61	45.53	55.14	0.54	0.5	0.27
Rail	Sutton	'VICTRIC-EPSDNS 2R06'	768.97	1.33	9.61	23.31	32.92	0.91	0.5	0.46
Rail	Sutton	'EPSDNS-VICTRIC 2R11'	768.97	1.67	9.61	18.71	28.33	1.06	0.5	0.53
Rail	Sutton	'SUTTON-VICTRIC 2R17'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-SUTTON 2R20'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-EPSM 2R24'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-SUTTON 2R26'	768.97	0.67	9.61	45.53	55.14	0.54	0.5	0.27

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Rail	Sutton	'VICTRIC-EPSDNS 2R28'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-EPSM 2R32'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'SUTTON-VICTRIC 2S15'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-EPSM 2S66'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-DORKING 2S58'	768.97	0.33	9.61	91.66	101.27	0.3	0.5	0.15
Rail	Sutton	'VICTRIC-SUTTON 2S60'	768.97	1.33	9.61	23.31	32.92	0.91	0.5	0.46
Total Grid Cell AI:										33.05

Appendix D Site Layout



00-GF Floor GA - Option 03



03-Third Floor GA - Option 03



06-Sixth Floor GA - Option 03



01-First Floor GA - Option 03



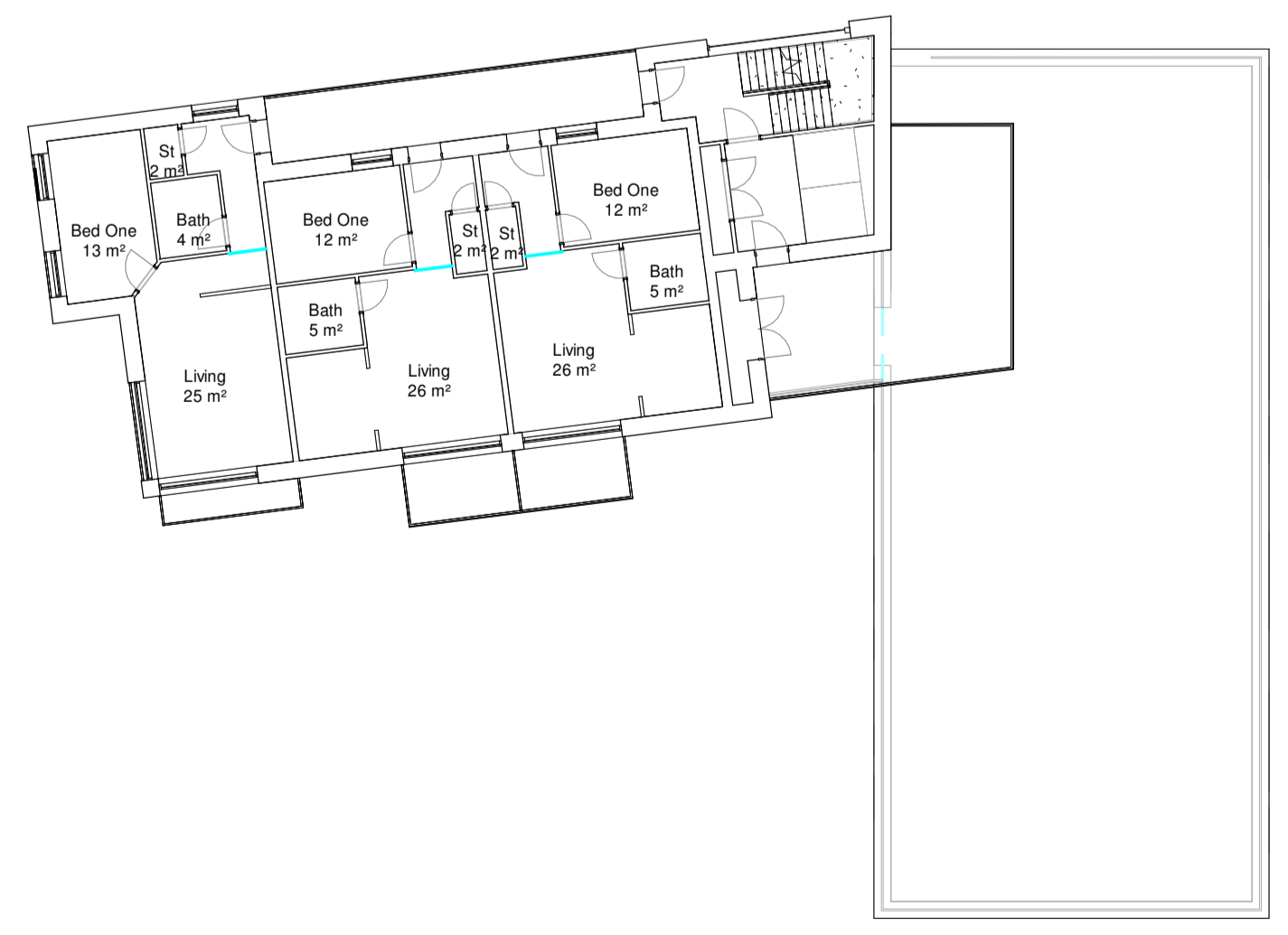
04-Fourth Floor GA - Option 03



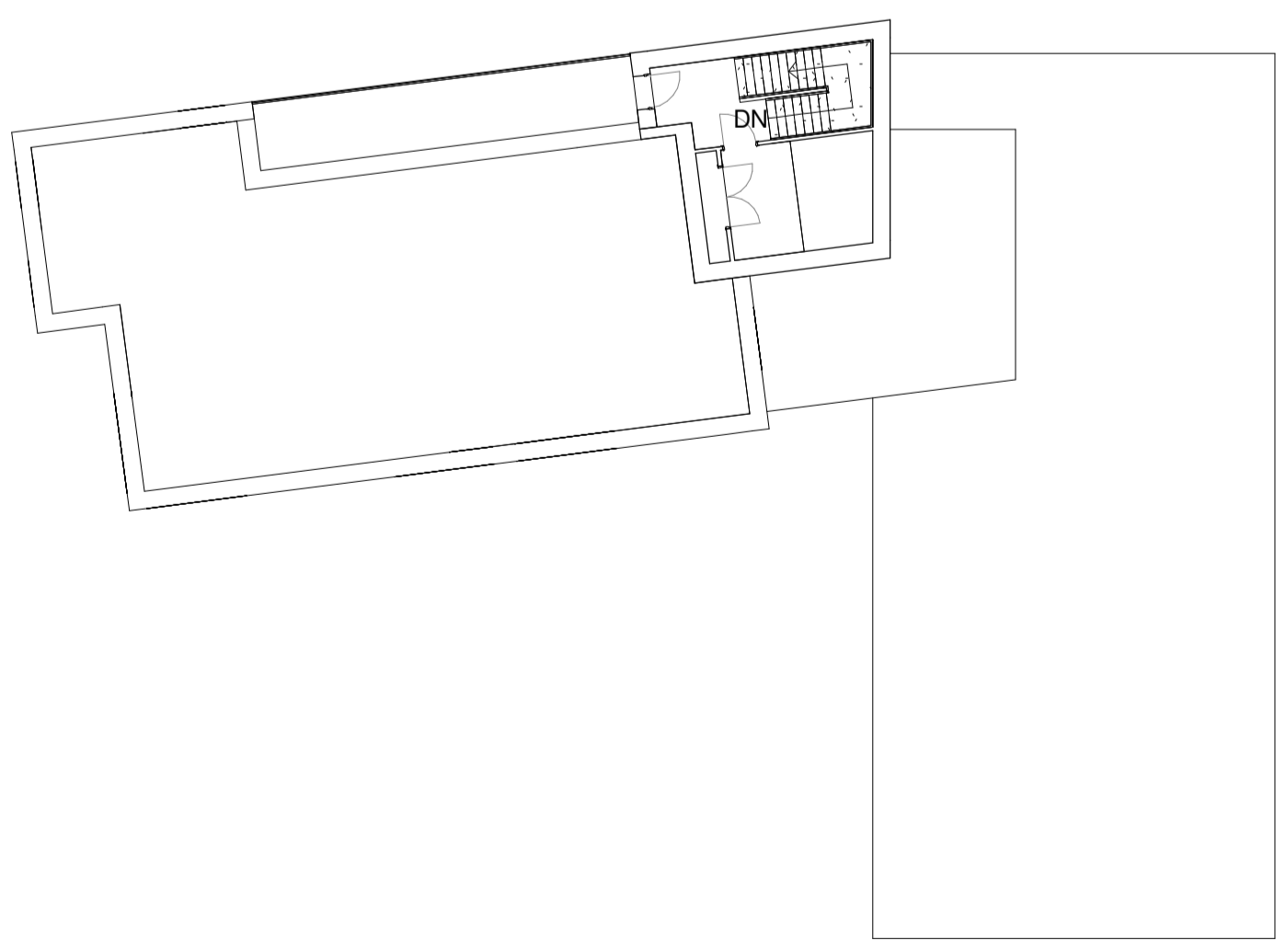
07-Seventh Floor GA - Option 03



02-Second Floor GA - Option 03



05-Fifth Floor GA - Option 03



08-Roof GA - Option 03

P1	Revised Plan Layout	PD	17/09/20
Rev	Description	By	Date
 Architecture + Building Surveying + Town Planning			
7 East Cliff, Preston, Lancashire, PR1 3JE T: 01772 258 356 10 Hunters Walk, Canal Street, Chester, CH1 4EB T: 01244 402 900 St Andrews Business Centre, Mold, Flintshire, CH7 1XB T: 01352 706 245			
Client			
REID CAPITAL			
Project			
RESIDENTIAL DEVELOPMENT SUTTON			
Drawing Title			
PROPOSED OPTION THREE_ GENERAL ARRANGMENT PLANS			
Drawn by	PD	Checked by	SB
Substability		Scale @ A1	1 : 200
10197	RCS-CAA-DR-A-2008	P1	
C-A JOB NO.	PROJECT - ORIGINATOR - VOL. - LEVEL - TYPE - ROLE - NUMBER	REV.	

Appendix E TRICS Outputs

Calculation Reference: AUDIT-540501-200917-0958

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
 MULTI-MODAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	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: 1000 to 1600 (units: sqm)
 Range Selected by User: 290 to 5000 (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:

Monday	1 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	3 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	2
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:

Retail Zone	2
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:

A1	3 days
----	--------

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
125,001 to 250,000	1 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	1 days
1.6 to 2.0	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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	3 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

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

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

PTAL Rating:

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

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

LIST OF SITES relevant to selection parameters

1	CA-01-G-01	JUST FOR PETS		CAMBRIDGESHIRE
	BACK LANE			
	CAMBOURNE			
	GREAT CAMBOURNE			
	Town Centre			
	Retail Zone			
	Total Gross floor area:		1068 sqm	
	Survey date:	THURSDAY	07/06/18	Survey Type: MANUAL
2	CH-01-G-02	MAGNET		CHESHIRE
	KING EDWARD STREET			
	MACCLESFIELD			
	Town Centre			
	Built-Up Zone			
	Total Gross floor area:		1000 sqm	
	Survey date:	MONDAY	06/11/17	Survey Type: MANUAL
3	LN-01-G-01	PETS AT HOME		LINCOLNSHIRE
	TRITTON ROAD			
	LINCOLN			
	TRITTON RETAIL PARK			
	Edge of Town Centre			
	Retail Zone			
	Total Gross floor area:		1600 sqm	
	Survey date:	TUESDAY	31/10/17	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 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	1000	0.300	1	1000	0.200	1	1000	0.500
08:00 - 09:00	3	1223	0.191	3	1223	0.109	3	1223	0.300
09:00 - 10:00	3	1223	1.363	3	1223	0.818	3	1223	2.181
10:00 - 11:00	3	1223	1.309	3	1223	0.845	3	1223	2.154
11:00 - 12:00	3	1223	1.063	3	1223	1.009	3	1223	2.072
12:00 - 13:00	3	1223	0.872	3	1223	1.063	3	1223	1.935
13:00 - 14:00	3	1223	0.927	3	1223	1.172	3	1223	2.099
14:00 - 15:00	3	1223	1.063	3	1223	0.763	3	1223	1.826
15:00 - 16:00	3	1223	0.791	3	1223	0.845	3	1223	1.636
16:00 - 17:00	3	1223	1.254	3	1223	0.900	3	1223	2.154
17:00 - 18:00	3	1223	1.390	3	1223	1.527	3	1223	2.917
18:00 - 19:00	2	1334	1.462	2	1334	2.136	2	1334	3.598
19:00 - 20:00	2	1334	0.900	2	1334	1.499	2	1334	2.399
20:00 - 21:00	1	1600	0.000	1	1600	0.438	1	1600	0.438
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			12.885			13.324			26.209

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

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

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The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected: 1000 - 1600 (units: sqm)
Survey date range: 01/01/12 - 07/06/18
Number of weekdays (Monday-Friday): 3
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	1000	0.600	1	1000	0.300	1	1000	0.900
08:00 - 09:00	3	1223	0.245	3	1223	0.109	3	1223	0.354
09:00 - 10:00	3	1223	2.617	3	1223	1.336	3	1223	3.953
10:00 - 11:00	3	1223	2.099	3	1223	1.418	3	1223	3.517
11:00 - 12:00	3	1223	2.045	3	1223	1.908	3	1223	3.953
12:00 - 13:00	3	1223	1.581	3	1223	1.799	3	1223	3.380
13:00 - 14:00	3	1223	1.690	3	1223	2.236	3	1223	3.926
14:00 - 15:00	3	1223	1.827	3	1223	1.336	3	1223	3.163
15:00 - 16:00	3	1223	1.227	3	1223	1.636	3	1223	2.863
16:00 - 17:00	3	1223	2.617	3	1223	1.718	3	1223	4.335
17:00 - 18:00	3	1223	2.208	3	1223	2.563	3	1223	4.771
18:00 - 19:00	2	1334	2.061	2	1334	3.373	2	1334	5.434
19:00 - 20:00	2	1334	1.424	2	1334	2.624	2	1334	4.048
20:00 - 21:00	1	1600	0.000	1	1600	0.625	1	1600	0.625
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			22.241			22.981			45.222

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

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

Calculation Reference: AUDIT-540501-200827-0836

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON	
	BM BROMLEY	1 days
	HM HAMMERSMITH AND FULHAM	2 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: 42 to 194 (units:)
 Range Selected by User: 9 to 493 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 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:

Monday	1 days
Tuesday	1 days
Wednesday	1 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	3
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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	2
High Street	1

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

Secondary Filtering selection:

Use Class:

C3	3 days
----	--------

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000	1 days
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	3 days
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This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	2 days

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

Travel Plan:

Yes	1 days
No	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:

5 Very Good	1 days
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	BM-03-C-01 RINGER'S ROAD BROMLEY	BLOCKS OF FLATS		BROMLEY
	Town Centre Built-Up Zone			
	Total No of Dwellings:		160	
	Survey date: MONDAY		12/11/18	Survey Type: MANUAL
2	HM-03-C-01 VANSTON PLACE FULHAM	BLOCK OF FLATS		HAMMERSMITH AND FULHAM
	Town Centre High Street			
	Total No of Dwellings:		42	
	Survey date: WEDNESDAY		16/07/14	Survey Type: MANUAL
3	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

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 VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	132	0.030	3	132	0.061	3	132	0.091
08:00 - 09:00	3	132	0.023	3	132	0.051	3	132	0.074
09:00 - 10:00	3	132	0.038	3	132	0.040	3	132	0.078
10:00 - 11:00	3	132	0.030	3	132	0.023	3	132	0.053
11:00 - 12:00	3	132	0.018	3	132	0.038	3	132	0.056
12:00 - 13:00	3	132	0.028	3	132	0.043	3	132	0.071
13:00 - 14:00	3	132	0.018	3	132	0.025	3	132	0.043
14:00 - 15:00	3	132	0.010	3	132	0.010	3	132	0.020
15:00 - 16:00	3	132	0.043	3	132	0.030	3	132	0.073
16:00 - 17:00	3	132	0.038	3	132	0.023	3	132	0.061
17:00 - 18:00	3	132	0.045	3	132	0.020	3	132	0.065
18:00 - 19:00	3	132	0.056	3	132	0.035	3	132	0.091
19:00 - 20:00	2	177	0.048	2	177	0.040	2	177	0.088
20:00 - 21:00	2	177	0.020	2	177	0.017	2	177	0.037
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.445			0.456			0.901

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

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Parameter summary

Trip rate parameter range selected:	42 - 194 (units:)
Survey date range:	01/01/12 - 06/03/20
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	132	0.063	3	132	0.399	3	132	0.462
08:00 - 09:00	3	132	0.086	3	132	0.518	3	132	0.604
09:00 - 10:00	3	132	0.078	3	132	0.199	3	132	0.277
10:00 - 11:00	3	132	0.104	3	132	0.159	3	132	0.263
11:00 - 12:00	3	132	0.093	3	132	0.126	3	132	0.219
12:00 - 13:00	3	132	0.101	3	132	0.106	3	132	0.207
13:00 - 14:00	3	132	0.114	3	132	0.131	3	132	0.245
14:00 - 15:00	3	132	0.098	3	132	0.098	3	132	0.196
15:00 - 16:00	3	132	0.167	3	132	0.134	3	132	0.301
16:00 - 17:00	3	132	0.212	3	132	0.116	3	132	0.328
17:00 - 18:00	3	132	0.255	3	132	0.121	3	132	0.376
18:00 - 19:00	3	132	0.437	3	132	0.159	3	132	0.596
19:00 - 20:00	2	177	0.322	2	177	0.113	2	177	0.435
20:00 - 21:00	2	177	0.153	2	177	0.090	2	177	0.243
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.283			2.469			4.752

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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