



Transport Assessment

6 Streatham Common South

5 July 2021

Prepared for
Streatham Common South Properties Ltd

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Contents

1.	INTRODUCTION	4
2.	POLICY CONTEXT	8
3.	EXISTING CONDITIONS.....	12
4.	DEVELOPMENT PROPOSALS	26
5.	TRIP GENERATION	33
6.	SUMMARY AND CONCLUSION.....	41

Tables

Table 3.1: Local Services and Amenities	13
Table 3.2: Local Bus Services.....	18
Table 3.3: Local Rail Services	19
Table 3.4: Parking Stress Survey Results.....	22
Table 4.1: Anticipated Parking Demand	29
Table 4.2: Impact of Development on Parking Stress.....	30
Table 5.1: Existing Trip Generation.....	33
Table 5.2: Proposed Flats Trip Rates.....	34
Table 5.3: Proposed House Trip Rates	35
Table 5.4: Resident Population Mode Splits	35
Table 5.5: Flats Multi-modal Trip Generation.....	36
Table 5.6: Proposed Light Industry Trip Rates	37
Table 5.7: Workplace Population Mode Splits.....	37
Table 5.8: Office Multi-modal Trip Generation.....	38
Table 5.9: Total Trip Generation	39
Table 5.10: Net Impact.....	39

Figures

Figure 1.1: Site Location Plan
Figure 1.2: Existing Site Layout
Figure 1.3: Proposed Site Layout
Figure 3.1: Local Services and Amenities
Figure 3.2: Pedestrian and Cycling Infrastructure Plan
Figure 3.3: WebCAT PTAL Output
Figure 3.4: Public Transport Infrastructure Plan
Figure 3.5: Locations of Nearby Car Clubs
Figure 3.6: Survey Extent
Figure 3.7: Parked Car Locations – Tuesday
Figure 3.8: Parked Car Locations - Wednesday
Figure 3.9: Serious Collisions Within the Vicinity of the Site

-
- Figure 4.1: Extract of Drawing 120
 - Figure 4.2: Pedestrian Access Arrangements
 - Figure 4.3: Extract of Drawing 121
 - Figure 4.4: Extract of Drawing 123
 - Figure 4.5: Refuse Strategies

Drawings

- Drawing 120 – Conflicting Car Movements
- Drawing 121 – Fire Tender Swept Path
- Drawing 123 – Panel Van Swept Path
- Drawing 122 – Refuse Vehicle Swept Path

Appendices

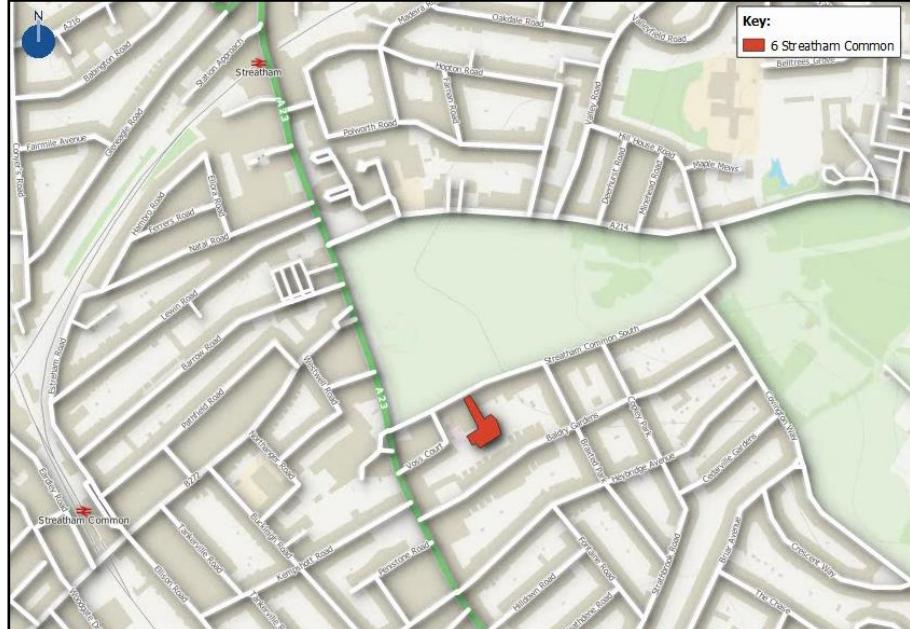
- Appendix A – Proposed Site Layout
- Appendix B – PTAL Output
- Appendix C – Parking Stress Survey Results
- Appendix D – TRICS Builders merchants
- Appendix E – TRICS Residential
- Appendix F – TRICS Light Industrial

1. Introduction

1.1 Preamble and Site Description

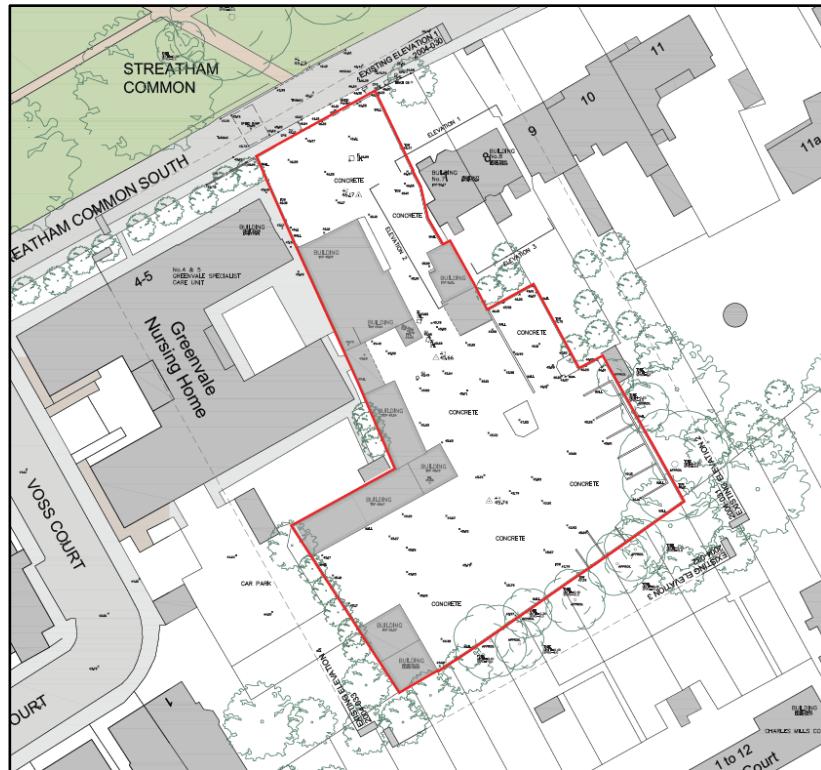
- 1.1.1 Markides Associates (MA) have been appointed by Streatham Common South Properties (the Applicant) to prepare this Transport Assessment (TA) in support of their redevelopment proposals for an existing builder's merchant site, located at 6 Streatham Common South, SW16 3BT.
- 1.1.2 A site location plan is indicated below in **Figure 1.1**.

Figure 1.1: Site Location Plan



- 1.1.3 The site is located on the south side of Streatham Common South, to the east of Streatham High Road. The site is bound to the north by Streatham Common South, from which it is currently accessed, beyond which lies Streatham Common. To the east and south, the site is bound by established residential property, while to the west, the site is bound by a specialist care residential institution. Much of the wider area is residential in nature; however, a number of commercial and retail uses are located along Streatham High Road, west of the site.
- 1.1.4 The site is located within the authoritative boundary of the London Borough of Lambeth (LBL), which acts as the relevant planning and highway authority.
- 1.1.5 The site currently operates as a builder's merchant, consisting of external/internal storage areas and a site office, with site area of 2,920sqm and gross floor area (GFA) of 510sqm. An existing site plan is provided below as **Figure 1.2**.

Figure 1.2: Existing Site Layout



1.2 Development Proposals

1.2.1 The development proposals are for the demolition of existing structures on site and the introduction of a residential led mixed use development, consisting of 27 residential dwellings, with accommodation mix as follows:

- 6 x one-bedroom flats;
- 4 x two-bedroom flats;
- 6 x three-bedroom flats; and
- 11 x four-bedroom houses.

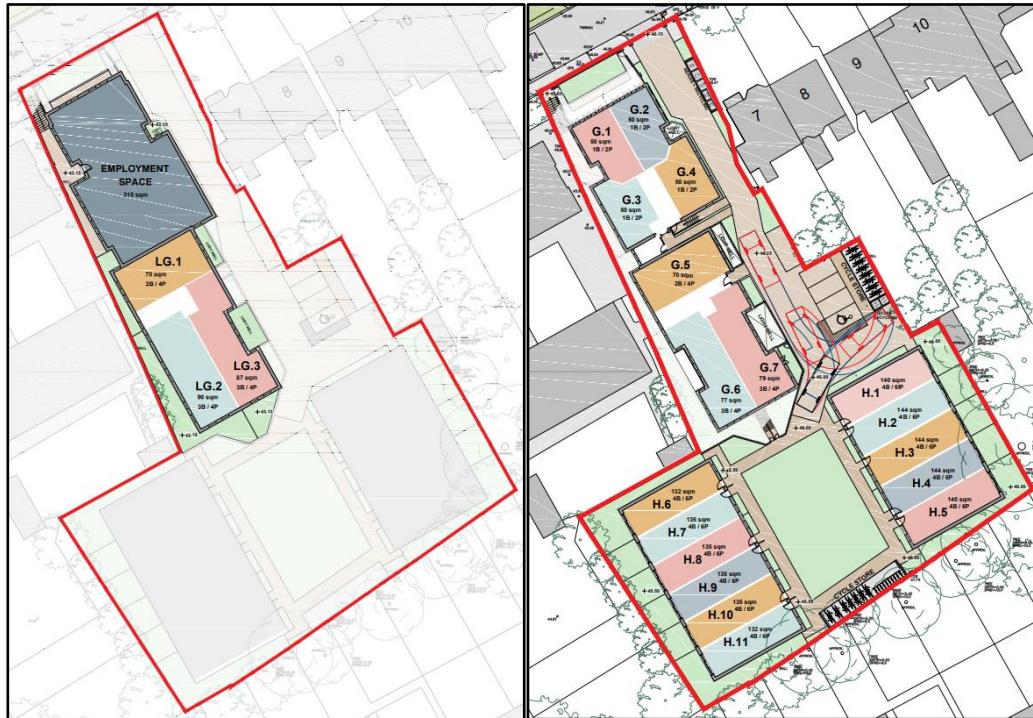
1.2.2 Additionally, the development proposals include approximately 310sqm gross floor area (GFA) of commercial use (Class E), envisaged as operating under a traditional light industrial land use.

1.2.3 The proposed site layout includes two buildings (Buildings A and B) within the northern part of the site that accommodates the commercial floor space at lower ground floor and flats within the ground floor and three floors above. The proposed houses (Buildings C and D) are then located within the wider southern part of the site, facing a central landscape area.

1.2.4 The development proposals include the provision of 5 on-site car parking spaces, inclusive of one blue badge parking bay, all of which will support the residential element of the proposals, along with on-site turning provision for emergency vehicle and delivery vehicle access.

- 1.2.5 The proposed site layout is attached as **Appendix A**, with an extract shown below as **Figure 1.3.**

Figure 1.3: Proposed Site Layout



1.3 Pre-application Discussions

- 1.3.1 The Applicant has engaged in a number of pre-application discussions with LBL officers, where the principle of residential development at the site has been accepted.
- 1.3.2 With regards to transport, the pre-application feedback identified that the site is within a highly accessible location in terms of public transport accessibility, referencing a public transport accessibility level (PTAL) of 4, and that this would lend itself to a car-free development. Blue badge parking requirements were referenced and that where full quotas could not be met on site this could be provided on-street subject to a financial contribution. Officers commented that the lack of a controlled parking zone surrounding the site required a parking stress survey to be undertaken in support of the application. Officers also required policy compliant levels of cycle parking and that any application should also be supported by a construction logistics plan (CLP) and delivery and service plan (DSP). Officers also advised that on-site delivery and servicing should be accommodated where possible.
- 1.3.3 Given the site's proximity to the A23 Streatham High Road, TfL were also invited to provide pre-application feedback, where the restricted car parking provision recommendations were echoed.

1.4 Public Consultation

- 1.4.1 The Applicant undertook online public consultation events in May 2021 to introduce the proposals to surrounding residents.
- 1.4.2 A key concern of local residents was a perceived under provision on car parking and potential impact on on-street parking stress levels should there be overspill parking demand.

1.5 TA Scope and Structure

- 1.5.1 This TA has therefore been prepared to assess the transport impacts of the development, and address the comments raised by officers of both LBL and TfL.
- 1.5.2 Following this introduction, the remainder of this TA is structured as follows:
 - **Section 2** reviews transport related planning policy at national and local levels;
 - **Section 3** describes existing conditions and any aspects of the wider outline planning application that are relevant to this scheme;
 - **Section 4** describes the development proposals in detail, encompassing access strategies for all user groups, delivery and servicing strategies, and car and cycle parking provision;
 - **Section 5** presents a trip generation analysis; and
 - **Section 6** concludes.

1.6 Other Documentation

- 1.6.1 In addition to this TA, the application is also supported by a Travel Plan (TP), which sets out a range of management strategies and measures to promote and encourage sustainable travel to/from the site, focussed on the active modes of walking and cycling. The TP should be read in conjunction with this TA.
- 1.6.2 Whilst the TA outlines the proposed delivery and servicing strategies that will be adopted by the site, the application is also supported by a standalone Delivery and Service Plan (DSP), which should also be read in conjunction.
- 1.6.3 Finally, an outline Construction Management Plan (CMP) will also be produced to set out the anticipated transport impacts associated with the construction phase of the development.

2. Policy Context

2.1 National Planning Policy Framework (2019)

- 2.1.1 The NPPF sets out Government planning policy, provides a framework within which local planning policies should be produced and is a material consideration in planning decisions.
- 2.1.2 The NPPF sets out that "*significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes,*" (Paragraph 103).
- 2.1.3 In assessing specific applications for development, the NPPF requires that:
- "*appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
 - *safe and suitable access to the site can be achieved for all users; and*
 - *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree*" (Paragraph 108).
- 2.1.4 The NPPF outlines that "*development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe,*" (Paragraph 109).
- 2.1.5 In this context, developments should prioritise sustainable transport modes, to promote access to all modes of transport for those with disabilities, create safe and attractive places and permit the efficient delivery of goods, (Paragraph 110).
- 2.1.6 With regards to car parking, the NPPF does not include any standards and recommends that local planning authorities should set standards based on the accessibility of the development, the type, mix and use of development, the availability of public transport and local car ownership levels.

2.2 London Plan (2021)

- 2.2.1 The London Plan is the overall strategic plan for London, and forms part of the development plan for London boroughs, with the most recent version having been adopted in early 2021.
- 2.2.2 With regards to transport, the London Plan emphasises the requirement to reduce car dependency and shift transport towards walking, cycling and public transport.
- 2.2.3 Policy T1, '*Strategic approach to transport*', sets out the overarching approach to transport strategy across the city. Policy T1 states that development plans and development proposals should support "*the delivery of the Mayor's strategic target of 80 per cent of all trips in London to be made by foot, cycle, or public transport by 2041.*" Policy T1 continues, "*all development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure*

that any impacts on London's transport networks and supporting infrastructure are mitigated."

- 2.2.4 The London Plan additionally incorporates the concept of a 'Healthy Streets' approach. This approach puts people and their health at the centre of decisions about how public spaces are designed and managed, with the aim of making them healthy, safe and welcoming for everyone. The approach, enshrined in Policy T2, '*Healthy Streets*', is based on 10 key indicators, with the two main indicators being *Pedestrians from all walks of life* and *People choose to walk, cycle and use public transport*. The eight other indicators feed into these main two and are required to support the creation of a healthy and inclusive environment where all members of the community can be seen out on the street.
- 2.2.5 Policy T4, '*Assessing and Mitigating Transport Impacts*', outlines that "*transport assessments/statements should be submitted with development proposals to ensure that impacts on the capacity of the transport network (including impacts on pedestrians and the cycle network), at the local, network-wide and strategic level, are fully assessed.*" Additionally, the policy states that development proposals "*should not increase road danger.*"
- 2.2.6 Policies T5, '*Cycling*', and T6, '*Car parking*', set out the standards for both cycle and car parking respectively.
- 2.2.7 In terms of cycle parking, relevant standards are 1 space per one bed one person unit, 1.5 spaces per one bedroom two-person unit and 2 spaces for all other unit types. Spaces should be secure and sheltered, with a reasonable proportion of spaces not in the form of two-tier racks. Commercial cycle parking standards are 1 space per 250sqm for employees and 1 space per 1000sqm for visitors.
- 2.2.8 In terms of car parking, London Plan policy for sites within Inner London with a PTAL of 4 dictates a car-free residential development. The London Plan also requires electric charging infrastructure for any parking space, either active (20%) or passive (80%) provision. The London Plan requires, for any residential development proposal over 9 units, that there should be 3% of units provided with blue badge car parking from the outset and a strategy to increase provision by 7% should demand dictate. The London Plan also states that where a development site is not located within a CPZ, this should not preclude a car-free development strategy and that boroughs should implement CPZ's to mitigate this impact. In terms of commercial blue badge parking, the London Plan requires a proportion of spaces for this user group where car parking is provided. Where there is no dedicated car parking the London Plan anticipates at least one blue badge space accommodated within on-site or on-street.
- 2.2.9 In terms of servicing, Policy T7 requires development proposals to facilitate safe, clean and efficient deliveries and servicing, with on-street activity permitted where off-street is not possible.

2.3 Lambeth Local Plan (2015)

- 2.3.1 The Lambeth Local Plan sets out the spatial strategy, vision and strategic objectives for planning policy in Lambeth, and forms the statutory development plan for the borough.
- 2.3.2 Policy T1, '*Sustainable Travel*', states that "*the council will promote a sustainable pattern of development in the borough... and reducing dependence on the private car,*" while in terms of cycling, Policy T3, '*Cycling*', sets out that in considering development proposals, "*Lambeth will require the provision of appropriate secure and covered cycle parking facilities in accordance with the minimum standards set out in the London Plan.*"
- 2.3.3 With regards to assessing the transport impacts of development proposals, Policy T6, '*Assessing impacts of development on transport capacity and infrastructure,*' outlines that "*planning applications will be supported where they do not have unacceptable transport impacts, including cumulative impacts on:*
- *highway safety;*
 - *traffic flows;*
 - *congestion of the road network;*
 - *on-street parking;*
 - *footway space, desire lines and pedestrian flows;*
 - *all other transport modes, including public transport and cycling.*"
- 2.3.4 Policy T7, '*Parking*', sets out that developments should not exceed the parking standards set out within the London Plan and reflect the public transport accessibility of the site. In areas where alternative modes are available and where public transport accessibility is high, car-free schemes should be the starting point, with the council requiring "*clear evidence and justification for any proposed parking.*" Notwithstanding this, consideration of disabled persons parking should be made.
- 2.3.5 In terms of delivery and servicing new developments, Policy T8, '*Servicing*', outlines that "*new development, and in particular... mixed-use development, will be permitted where adequate provision is made for servicing appropriate to the scale, form and location of the proposed development, including provision for commercial vehicles, ensuring that it is appropriate and acceptable in terms of impact on amenity of adjacent properties and road and traffic conditions of the location.*"

2.4 Draft Revised Lambeth Local Plan (2020)

- 2.4.1 The draft Revised Local Plan for Lambeth seeks to update the spatial strategy, vision and strategic objectives of the adopted Local Plan in line with the NPPF, new evidence and the New London Plan.
- 2.4.2 In terms of transport policies, increased focus is given to promoting safe and accessible sustainable travel, in particular walking and cycling.

- 2.4.3 Policy T1, '*Sustainable Travel*', reconfirms that development proposals should minimise the need to travel and to prioritise walking, cycling and public transport modes over the use of the private car. Policy T1 also supports policies set out in the New London Plan, including London Plan policy T2 to facilitate trips by walking and cycling, and London Plan policy T4, to assess and mitigate transport impacts through the provision of TAs and TPs.
- 2.4.4 Policy T2, '*Walking*' identifies that development proposals should deliver an improved environment for pedestrians, appropriate to the scale and nature of the proposal, while Policy T3, '*Cycling*' emphasises the delivery of supporting infrastructure within developments such as cycle parking facilities.
- 2.4.5 Policy T7, '*Parking*', sets out that LBL will apply New London Plan policy T6 to promote a reduction in car ownership and private car trips. Policy T8, '*Servicing*', outlines that new development will only be permitted where adequate provision is made for servicing appropriate to the scale, form and location of the proposed development, in line with New London Plan policy T7.

2.5 Policy Compliance

- 2.5.1 In terms of policy compliance, the development proposals are supported by this TA, which assesses the potential transport impacts associated with the proposed scale of development.
- 2.5.2 The TA demonstrates that the site is located in a highly accessible location, both in terms of proximity to existing social and sustainable transport infrastructure, thus justifying the principle of residential development in this location and the low-car strategy. This supports national, regional and local policy to support and encourage sustainable transport modes over the private car.
- 2.5.3 This TA also demonstrates that access for all user groups will be ensured as part of the development proposals, with Blue Badge parking and cycle parking being provided.
- 2.5.4 Comparative trip generation analysis demonstrates that the proposals will not generate a material change in traffic generation.

3. Existing Conditions

3.1 Site Location and Existing use

- 3.1.1 The site, 6 Streatham Common South, SW16, is currently a builder's merchant, consisting of storage areas and structures.
- 3.1.2 The site is located south of Streatham Hill centre, bound to the north by Streatham Common South, beyond which lies Streatham Common. To the east and south, the site is bound by residential property, while to the west, the site is bound by a specialist care residential institution.
- 3.1.3 Vehicular access to the site is taken from Streatham Common South via an existing 7m wide crossover, with a lack of pedestrian visibility through the access.

3.2 Local Amenities

- 3.2.1 A range of local services and amenities, which act as typical trip attractors for residential development, can be accessed by active travel modes from the site, examples of which are outlined in **Table 3.1**, with the location of these amenities illustrated in **Figure 3.1**.

Figure 3.1: Local Services and Amenities

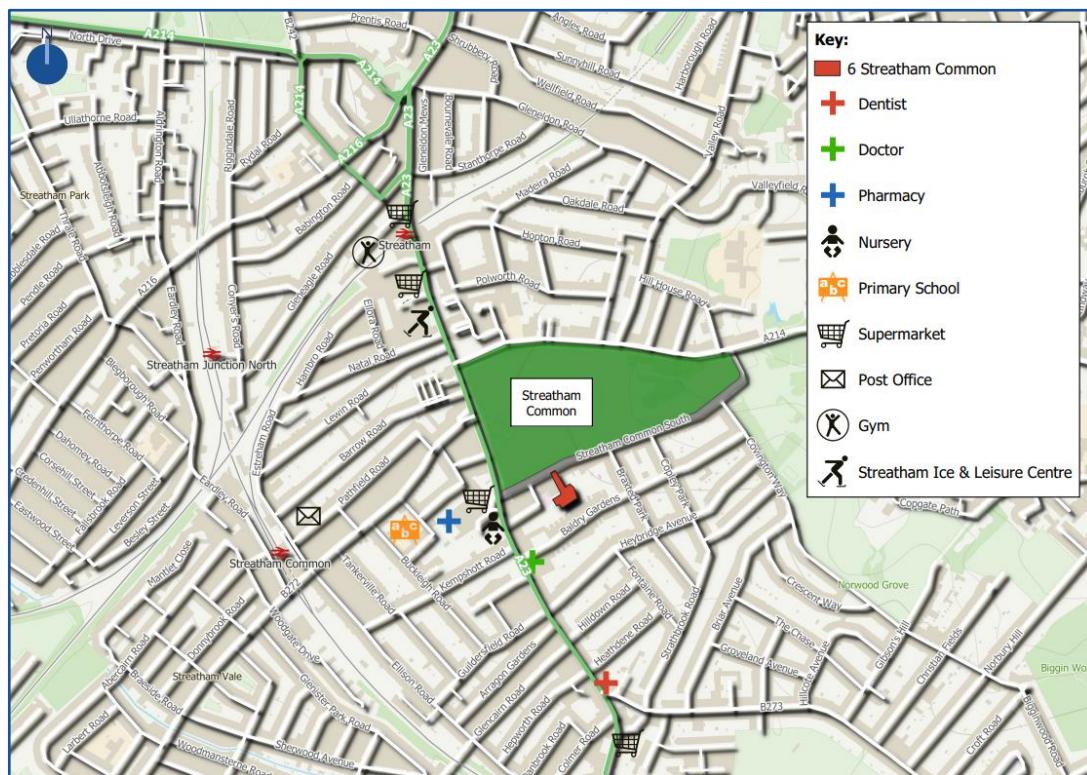


Table 3.1: Local Services and Amenities

Facility	Location	Distance	Travel Time (Minutes)	
			Walk	Cycle
Health Facility				
Baldry Gardens Practice	Streatham High Road	400m	5 Minutes	2 Minutes
Streatham Dental Centre	Streatham High Road	750m	9 Minutes	2 Minutes
Lloyds Pharmacy	Streatham High Road	300m	4 Minutes	1 Minute
Education				
Monkey Puzzle Day Nursery	Streatham High Road	300m	4 Minutes	1 Minute
Immanuel & St Andrew CofE Primary School	Northanger Road	600m	8 Minutes	3 Minutes
Streatham & Clapham High School	Abbotswood Road	2.1km	26 Minutes	8 Minutes
Food Store				
Sainsbury's	Streatham High Road	300m	4 Minutes	1 Minute
Tesco Extra	Streatham High Road	700m	9 Minutes	3 Minutes
Aldi	Streatham high Road	850m	11 Minutes	4 Minutes
Lidl	Streatham High Road	950m	11 Minutes	3 Minutes
Retail / Leisure Facility				
Post Office	Greyhound Lane	850m	10 Minutes	4 Minutes
The Gym	Station Approach	950m	12 Minutes	4 Minutes
Streatham Ice & Leisure Centre	Streatham High Road	600m	8 Minutes	3 Minutes
Streatham Common & Children's Playground	Streatham Common South	<50m	<1 Minute	<1 Minute

3.2.2 **Table 3.1** confirms that a range of land uses are located within close proximity to the site, which ensures that these trip attractors can be accessed by modes other than the private car, and realistically on foot, thereby reflecting fundamental requirements of national, regional and local planning policy for creating sustainable communities. Indeed, the Chartered Institute of Highways and Transportation's (CIHT) March 2015 guidance document, '*Planning for Walking*', states that 'walkable neighbourhoods' are those with a typical catchment of around 800m, with many of the identified land uses being within this walk distance threshold.

3.3 Pedestrian Infrastructure

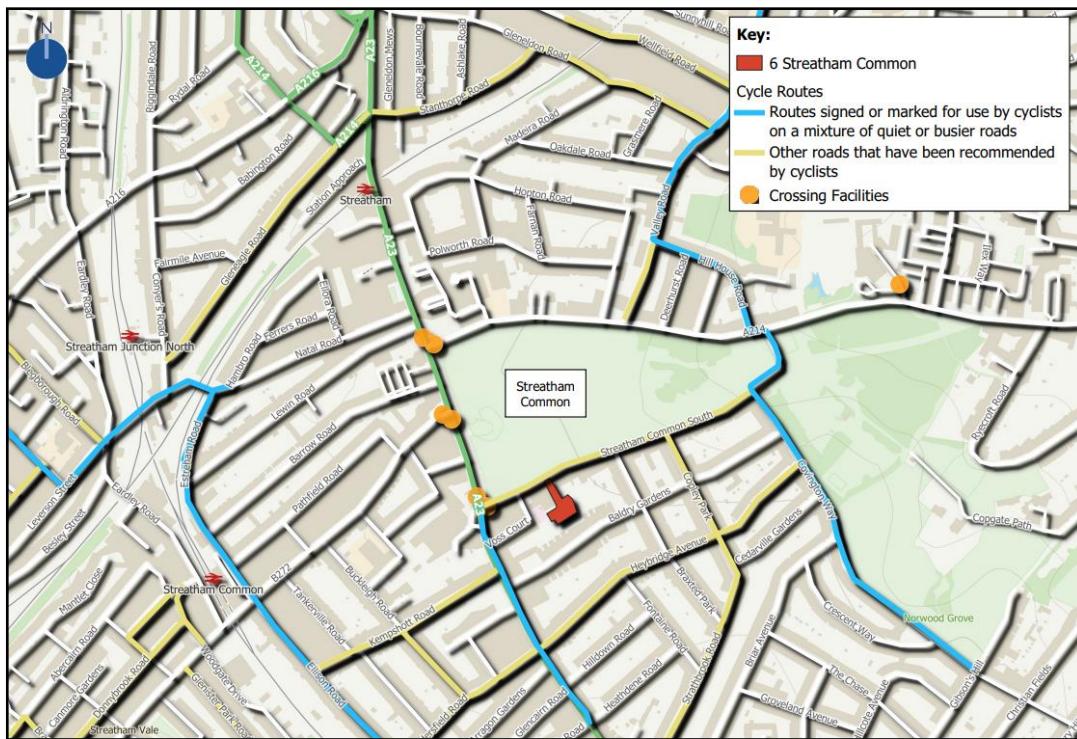
3.3.1 Streatham Common South benefits from footway provision extending in both directions from the site along the southern side of the carriageway. To the west, this footway is around 1.5m wide, while to the east of the site access, this width gradually widens until it reaches approximately 4m wide some 80m east of the access, with this width maintained for the majority of the remaining length of the street. There is no footway provision on the opposite northern side.

- 3.3.2 The predominant pedestrian desire lines will be to the west of the site, with the majority of local facilities and public transport access points located in this direction. At-grade crossings are present at the Streatham Common South / Streatham High Road junction. Across Streatham Common South, the crossing benefits from dropped kerbs, tactile paving, road markings and a pedestrian refuge island, while across Streatham High Road, the crossing benefits from all of the same infrastructure, in addition to tapering lines on both sides of the carriageway, red/green person signals supported by push-button boxes, and a staggered two-stage layout.
- 3.3.3 Similar crossing facilities to those described above are also located at the Streatham High Road junctions with Greyhound Lane and Streatham Common North to the north of the site, and the junction with Green Lane to the south of the site. Additional crossings are also present along the length of Streatham High Road away from junctions, taking the form of zebra and signalised crossings.
- 3.3.4 In addition to the footway infrastructure above, a number of walking routes are available within Streatham Common, with footway widths ranging between 1-2m wide.

3.4 Cycling Infrastructure

- 3.4.1 The site is well served by cycling infrastructure, with TfL's '*Local Cycling Guide 14*' identifying that a number of streets within the vicinity of the site are conducive to cycling, as well as identifying a range of cycling routes. To the west of the site, sections of Streatham High Road and Ellison Road are identified as a '*route signed or marked for use by cyclists on a mixture of quiet or busier roads*'. A number of other streets, including Streatham Common South, Copley Park and Kempshott Road, are designated as '*other roads that have been recommended by cyclists*'. In addition to the above, off-street cycle routes are present within Streatham Common and Norwood Road Recreation Ground.
- 3.4.2 In terms of physical infrastructure, junctions along Streatham High Road benefit from advanced stop lines for cyclists.
- 3.4.3 The locations of the pedestrian and cycling infrastructure outlined above are illustrated below in **Figure 3.2**.

Figure 3.2: Pedestrian and Cycling Infrastructure Plan



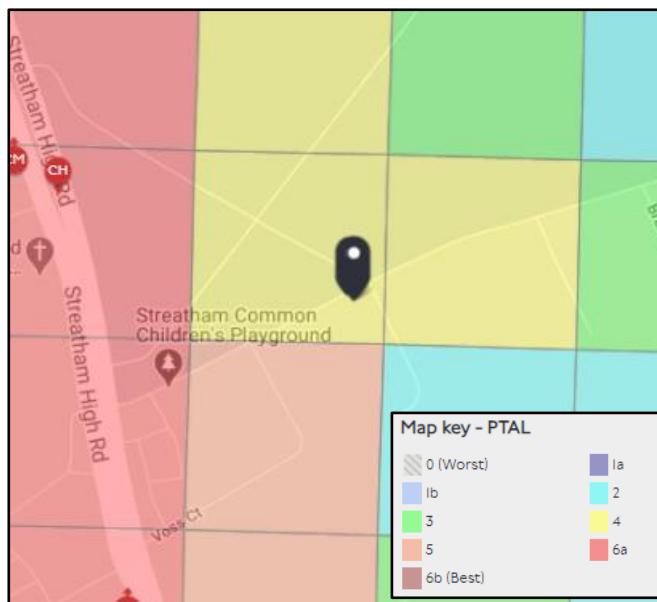
3.5 Public Transport Accessibility Level (PTAL)

- 3.5.1 The PTAL rating of a site is a widely recognised way to measure a site's connectivity to the public transport network in London. PTAL combines information regarding the proximity of public transport Service Access Points (SAPs) to a site, including rail/underground stations and bus stops, with the number and frequency of the available services at those SAPs.
- 3.5.2 SAPs are taken into consideration within the PTAL calculation if they are within certain walk distance thresholds of a site; bus stops are considered if within 640m of the site and rail/underground stations are taken into account if within 960m of the site. The highest level of accessibility is given a PTAL rating of 6b, whereas the lowest level of accessibility is given a PTAL of 0.
- 3.5.3 PTAL analysis does, however, suffer from a number of acknowledged weaknesses. The methodology relies on arbitrary walk distance profiles, beyond which services are assumed to be inaccessible e.g., a station located 961m from a site is excluded from the calculations and will not therefore influence a PTAL rating. It also does not take into account the quality of public transport routes, destinations served or existing levels of crowding.
- 3.5.4 Furthermore, the WebCAT PTAL calculations also rely upon mapping software that occasionally miss publicly accessible short-cuts to SAPs, as well as including sections of the public highway without consideration of whether there is any supporting infrastructure.

WebCAT PTAL Output

- 3.5.5 A PTAL assessment using the TfL land use planning PTAL assessment tool WebCAT has been undertaken, with output detailed below in **Figure 3.3**.

Figure 3.3: WebCAT PTAL Output



Source: WebCAT

- 3.5.6 Using the WebCAT Planning Tool, the site achieves a PTAL rating of 4. The WebCAT PTAL outputs are attached as **Appendix B**.
- 3.5.7 Reviewing the outputs in detail, the PTAL ratings are achieved based on the site being within an acceptable walking distance of bus routes that are operational along Streatham High Road, Greyhound Lane and Streatham Common North, as well as National Rail services from Streatham Station.

3.6 Local Bus Services

- 3.6.1 The site is situated within close proximity of a number of established bus routes that provide access to both residential and retail/commercial areas across south and southwest London.
- 3.6.2 The closest paired bus stops to the site are located on Streatham High Road and accommodate a bus shelter with seating and a bus stand with timetable information for both north and southbound stops. The southbound stop is located approximately 250m north of the site and the northbound stop is located around 300m from the site via the signalised crossing over Streatham High Road. Additional services are available from stops located on Greyhound Lane and Streatham Common North.
- 3.6.3 **Table 3.2** below sets out the routes, service frequencies and stops available within walking distance of the site, which are also illustrated at **Figure 3.4**.

Figure 3.4: Public Transport Infrastructure Plan

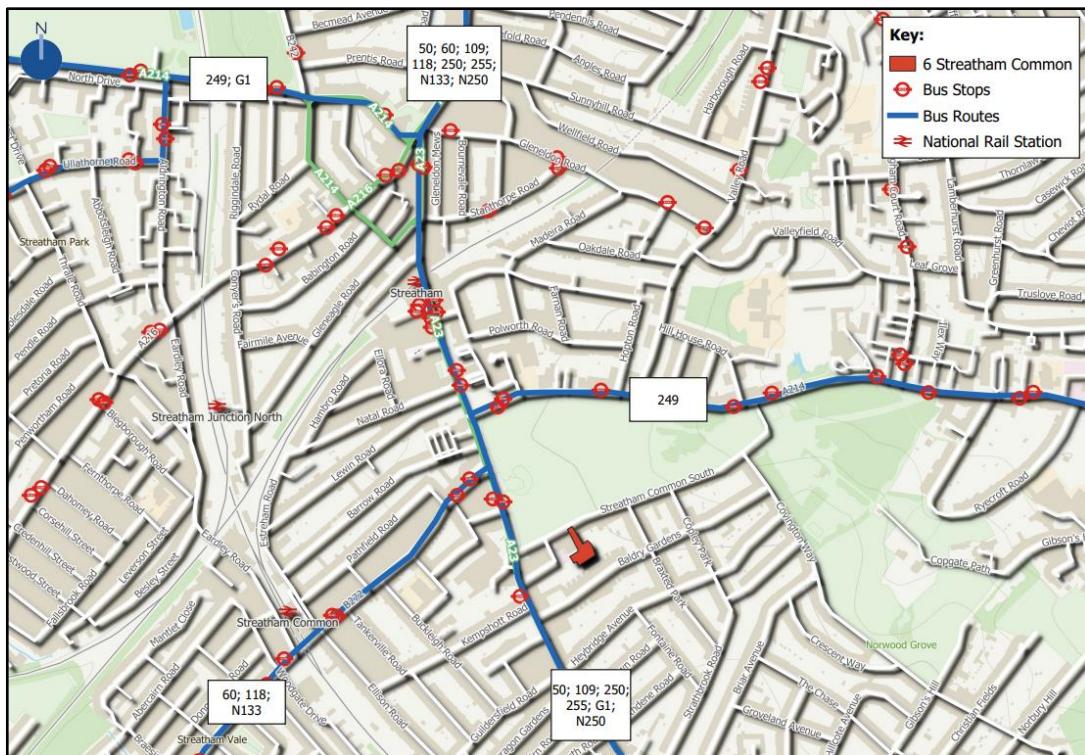


Table 3.2: Local Bus Services

Route	Bus Stop Location	Route	Peak Frequency		
			Weekday	Saturday	Sunday
50	Streatham High Road	Croydon – Norbury – Streatham – Tooting Bec – Clapham - Stockwell	Every 11-13 Minutes	Every 11-14 Minutes	Every 20 Minutes
60	Greyhound Lane	Coulsdon – Croydon - Streatham	Every 8-12 Minutes	Every 9-11 Minutes	Every 11-14 Minutes
109	Streatham High Road	Croydon – Norbury – Streatham - Brixton	Every 5-9 Minutes	Every 5-9 Minutes	Every 8-12 Minutes
118	Greyhound Lane	Brixton – Streatham – Mitcham - Morden	Every 7-13 Minutes	Every 20 Minutes	Every 20 Minutes
249	Streatham Common North	Clapham Common – Balham – Tooting Bec – Streatham – Crystal Palace - Anerley	Every 8-12 Minutes	Every 9-12 Minutes	Every 11-14 Minutes
250	Green Lane	Croydon – Norbury – Streatham - Brixton	Every 6-9 Minutes	Every 6-8 Minutes	Every 11-14 Minutes
255	Streatham High Road	Pollards Hill – Norbury – Streatham - Balham	Every 11-13 Minutes	Every 10-13 Minutes	Every 10-13 Minutes
G1	Hermitage Lane	Norbury – Streatham – Grosvenor Way – Clapham - Battersea	Every 15-17 Minutes	Every 18-20 Minutes	Every 30 Minutes
N109	Streatham High Road	Croydon – Norbury – Streatham – Brixton – Kennington – Waterloo – Oxford Circus	Mon-Thurs PM / Tue-Fri AM: Every 30 Minutes Fri PM / Sat AM: Every 20 Minutes	Sat PM / Sun AM: Every 20 Minutes	Sun PM / Mon AM: Every 30 Minutes
N133	Greyhound Lane	Morden – Mitcham – Streatham – Brixton – Kennington – Elephant & Castle – Liverpool Street Station	Every 30 Minutes	Every 30 Minutes	Every 30 Minutes
N250	Streatham High Road	Croydon – Thornton Heath – Streatham - Brixton	Every 30 Minutes	Every 30 Minutes	Every 30 Minutes

3.6.4 As indicated in the table above, the bus routes available within vicinity of the site serve a number of destinations across south, southwest and central London.

3.7 Rail Services

- 3.7.1 Streatham Station is located 750m to the northwest of the site, which is an approximate 10-minute walk or a 3-minute cycle from the site respectively. Streatham Station provides access to Southern Rail and Thameslink National Rail services, providing regular and frequent access to destinations including London Bridge, Caterham, Sutton and St Albans City.
- 3.7.2 Additionally, Streatham Common Station is located some 960m west of the site, equating to a walk of some 11-minutes or a cycle of around 4-minutes. This station provides additional Southern Rail services, including those to London Victoria and Epsom Downs.

- 3.7.3 The location of Streatham and Streatham Common Stations are illustrated on **Figure 3.4**, with the rail services and their frequencies they operate at are outlined in **Table 3.3** below.

Table 3.3: Local Rail Services

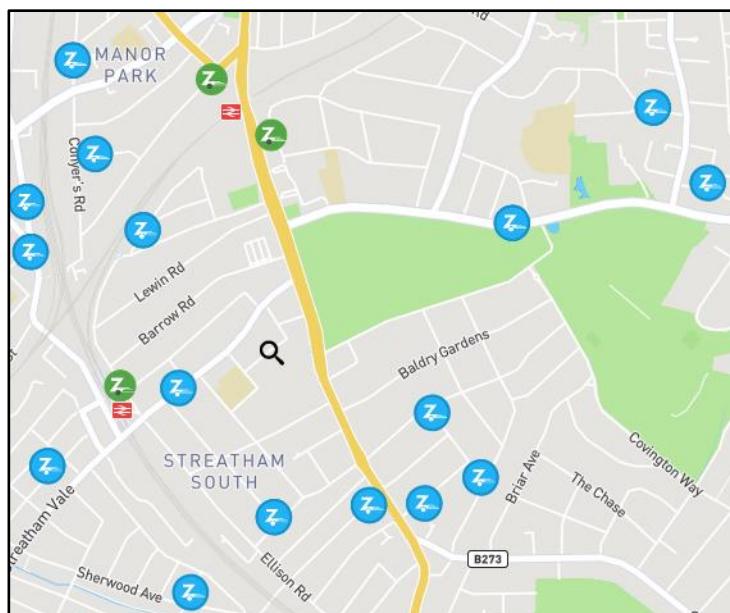
Service	Route	Frequency		
		Weekday Peak Hours	Saturday	Sunday
Streatham Station				
London Bridge	Tulse Hill – North Dulwich – East Dulwich – Peckham Rye – Queens Road Peckham – South Bermondsey – London Bridge	3 Services an Hour	2 Services an Hour	2 Services an Hour
Caterham	Streatham Common - Norbury – Thornton Heath – Selhurst – East Croydon – South Croydon – Purley Oaks - Purley – Kenley – Whyteleaf – Whyteleaf South - Caterham	No Services (2 Services an Hour Outside of Peak)	2 Services an Hour	2 Services an Hour
Sutton	Mitcham Eastfields – Mitcham Junction – Hackbridge – Carshalton – Sutton Or Tooting – Haydons Road – Wimbledon – Wimbledon Chase – South Merton – Morden South – St Helier – Sutton Common – West Sutton - Sutton	4 Services an Hour	2 Services an Hour	4 Services an Hour
St Albans City	Tulse Hill – Herne Hill – Loughborough Junction – Elephant & Castle – London Blackfriars – Farringdon – London St Pancras International – Kentish Town – West Hampstead Thameslink – Cricklewood – Hendon – Mill Hill Broadway – Elstree & Borehamwood – Radlett – St Albans City	4 Services an Hour	2 Services an Hour	2 Services an Hour
Streatham Common Station				
London Victoria	Balham – Wandsworth Common – Clapham Junction – Battersea Park – London Victoria	5 Services an Hour	4 Services an Hour	4 Services an Hour
Epsom Downs	Norbury - Thornton Heath – Selhurst – West Croydon – Waddon – Wallington – Carshalton Beaches – Sutton – Belmont – Banstead – Epsom Downs	2 Services an Hour	2 Services per Hour	2 Services per Hour

- 3.7.4 As demonstrated in the table above, a range of destinations across London and the southeast are regularly accessible from Streatham and Streatham Common Stations.

3.8 Local Car Clubs

- 3.8.1 A significant number of car club vehicles are located within a short walking distance from the site, as demonstrated by **Figure 3.5**.

Figure 3.5: Locations of Nearby Car Clubs



Source: como.org.uk

- 3.8.2 The vehicles whose locations are demonstrated in the figure above are owned and operated by ZipCar. Three of these vehicles operate under the standard car club vehicle scheme (green), while the remainder operate under the ZipCar Flex scheme (blue). ZipCar Flex enables members to use vehicles for one-way trips, so returning the car to the original pick-up location is not necessary and allows the car club hire to be used more flexibly as part of onward journeys.
- 3.8.3 The majority of vehicles located within the vicinity of the site are small hatchback cars such as a Volkswagen Golf or Polo; however, larger vehicles including a Volkswagen Transporter van also available.

3.9 Local Highway Network

- 3.9.1 Streatham High Road is a built-up urban road with street lighting which runs in a north/south alignment between Streatham Hill (A23) and London Road (A23). This road forms part of the Transport for London Road Network (TLRN) and is subject to 30mph speed restrictions. To the north of Voss Court, Streatham High Road largely has two-lanes in both directions, while to the south of Voss Court, the road only has one-lane in each direction.
- 3.9.2 Streatham Common South is a single-carriageway, predominantly residential street subject to 20mph speed restrictions. For approximately 150m along the north of the carriageway, and around 240m along the south of the carriageway, Streatham Common South is subject to double-yellow line restrictions, precluding on-street parking. Further east, the remainder of the street is largely absent of parking restrictions, with the significant majority of kerb length being unrestricted.

- 3.9.3 To the east of the site, Streatham Common South terminates, with access along the remaining 60m of the street restricted to emergency access only. No vehicular connection is therefore available to Streatham Common North.
- 3.9.4 The site is not located within, or adjacent to, any active CPZs. We are aware however of LBL aspirations to introduce a CPZ across the majority of the southern part of the borough and we understand that public consultation events are intended prior to any implementation.

3.10 Existing Parking Stress

3.10.1 In response to pre-application feedback, a parking stress survey has been undertaken to establish whether there is reserve capacity to accommodate additional parking demand.

Survey Methodology

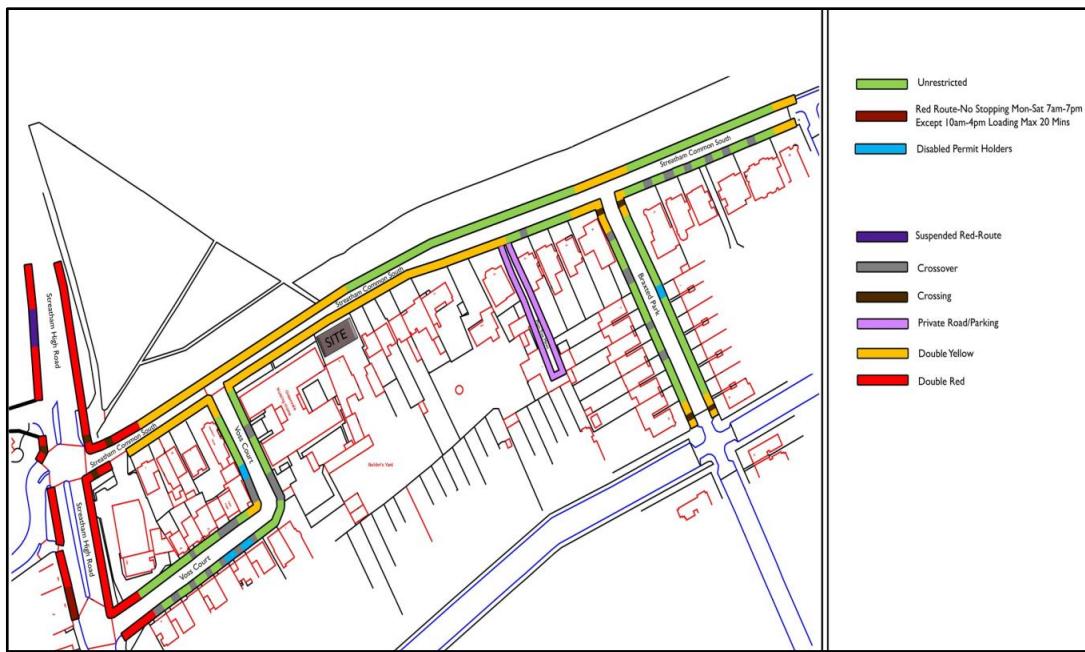
3.10.2 The parking stress survey was conducted as per the Lambeth methodology. The key aspects of this methodology are summarised as follows:

- Walk distance threshold of 200m from the site (for residential land uses), extended locally to the next junction where the threshold falls within the middle of a road;
- Surveys were undertaken by an independent traffic survey company between 00:30-05:30 on Tuesday 2nd and Wednesday 3rd February 2021;
- All relevant parking controls within this study area were recorded; and
- A 5m kerb length has been adopted as being representative of a parking space.

3.10.3 Given current restrictions on traffic surveys, MA sought to agree the methodology with LBL officers, who on Tuesday 26th January 2021, confirmed that the survey method was acceptable.

3.10.4 Full study areas and data outputs on a road-by-road basis are provided as **Appendix C** while **Figure 3.6** indicates the survey extent.

Figure 3.6: Survey Extent



Survey Results

- 3.10.5 The survey revealed that, within the study area, there is sufficient unrestricted kerb length to accommodate 115 parked vehicles. The majority of this capacity is located on Streatham Common South, which accommodates 51% of the identified spaces.
- 3.10.6 **Table 3.4** below summarises the total number of recorded parked vehicles, along with the resultant stress levels, over both survey nights.

Table 3.4: Parking Stress Survey Results

	Tuesday 2 nd February	Wednesday 3 rd February	Average
Parking Demand	59	63	61
Spare Capacity	56	52	54
Parking Stress	51%	55%	53%

- 3.10.7 **Table 3.4** indicates an average parking stress level across both nights of 53%, with sufficient available kerb length across the study area to accommodate an additional 54 parked vehicles on average.

Figure 3.7: Parked Car Locations – Tuesday



Figure 3.8: Parked Car Locations - Wednesday



3.10.8 **Figure 3.7 and Figure 3.8 illustrate that there is greater reserve capacity available along Streatham Common South than along Voss Court and Braxted Park on both survey nights.**

Validating the Results

3.10.9 In November 2020, an application was submitted for the demolition of the existing MOT garage on Voss Court and for the construction of a three-storey building to facilitate 9 residential units, with the planning application reference being 20/04101/FUL. In support of this application, a parking stress survey was carried out on Wednesday 16th September 2020 at 03:30 and Thursday 17th September at 3:30 in accordance with the Lambeth methodology, with the results of this survey reported within the accompanying TS, also produced by MA. This survey was conducted at a time when there were no lockdowns in place.

- 3.10.10 The survey revealed that along Streatham Common, Baldry Gardens, Streatham High Road and Kempshott Road, on the Wednesday the parking survey demonstrated that only 30.7% of parking spaces were occupied. Similarly, on the Thursday there were only 31.6% of parking spaces occupied. Therefore, this demonstrates that there is a remaining capacity of between 69.3% and 68.4% of spaces.
- 3.10.11 Whilst the survey results associated with the Voss Court application are not directly comparable to the results included within this report (as the survey areas are different), they do indicate that there is a low level of parking stress in the vicinity of the site, thereby confirming the results included within this report.

3.11 Casualty Analysis

- 3.11.1 The Mayor's Transport Strategy is committed to Vision Zero to end deaths and serious injury on London's roads and transport networks. The strategy sets out the goal that, by 2041, all deaths and serious injuries would be eliminated from London's road and transport network.
- 3.11.2 Within the vicinity of the site, casualty data from TfL's London Collision Map for the 5-year period 2015-2019 has been obtained. A review of those casualties has been undertaken to determine the number of incidents which has resulted in people being killed or seriously injured (KSI) within the vicinity of the site.
- 3.11.3 This review also aimed to identify where there appears to be a clustering of KSI casualties. A cluster is defined as two or more serious casualties, or one or more fatal casualties.
- 3.11.4 Of the 6 KSI casualties recorded in the study area, 0 incidents related to cyclists and 2 incidents involved vehicles and pedestrians. 3 KSI incidents involved motorcycles, including one incident involving a car and a motorcycle, while the fifth KSI incident was linked with a single car. All KSI casualties were classed as serious, with 0 KSIs reported to be fatal.
- 3.11.5 A location plan indicating the locations of the serious collisions is provided below as

Figure 3.9: Serious Collisions Within the Vicinity of the Site



- 3.11.6 As demonstrated in the figure above, no incidents occurred along Streatham Common South, with all collisions occurring on the A23.

3.12 Summary

- 3.12.1 In summary, a number of essential services and amenities are within an acceptable walk distance for most able-bodied residents, enhancing the sustainable credentials of the site, with an effective footway and cycling network supporting active modes.
- 3.12.2 The site benefits from being located near to established bus networks, which provide access to a range of destinations across central and southeast London. Streatham and Streatham Common Rail Stations are within walking distance from the site and allows residents to access connecting services to central London. This accessibility is reflected in the site's good PTAL rating of 4.
- 3.12.3 This level of accessibility has influenced the adopted car parking strategy for the site. An initial parking stress analysis suggests that there is reserve capacity for additional parking demand to be accommodated on-street.

4. Development Proposals

4.1 Scale of Development and Layout

4.1.1 The development proposals are for the demolition of existing buildings on site and the introduction of a residential led mixed use development, consisting of 27 residential dwellings, with accommodation mix as follows:

- 6 x one-bedroom flats;
- 4 x two-bedroom flats;
- 6 x three-bedroom flats; and
- 11 x four-bedroom houses.

4.1.2 The development proposals also include approximately 310sqm GFA of commercial use (Class E), envisaged as operating under a traditional light industrial land use.

4.1.3 The proposed site layout includes two buildings (Buildings A and B) within the northern part of the site that accommodates the commercial floor space at lower ground floor and flats within the ground floor and three floors above. The proposed houses (Buildings C and D) are then located within the wider southern part of the site, facing a central landscape area.

4.1.4 The proposals include a shared surface access road along its eastern edge which provides access to a rear car parking area and turning head provision. The proposals also include secure cycle storage and bin storage.

4.1.5 The proposed site layout is attached as **Appendix A**.

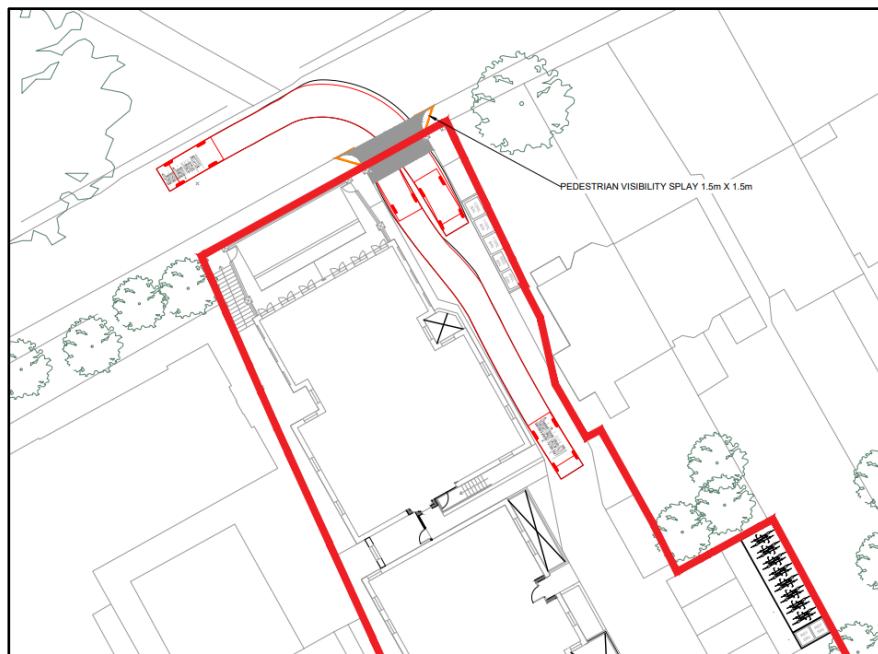
4.2 Access

4.2.1 Access for all modes is obtained from Streatham Common South. The proposals continue the existing footway provision into the site, either side of a proposed 5m wide vehicular access in the same broad location as the existing access. It is envisaged that the vehicular access will be delivered as a raised crossover. Approximately 3m into the site the footway returns will terminate and tie into the internal access road, which will act as a shared surface, providing all modes access for the rest of the site.

4.2.2 For approximately 12m into the site the 5m access road width will be maintained, allowing conflicting car movements to pass. After this the access road will taper down to a minimum width of 3.7m toward a car parking area and turning head.

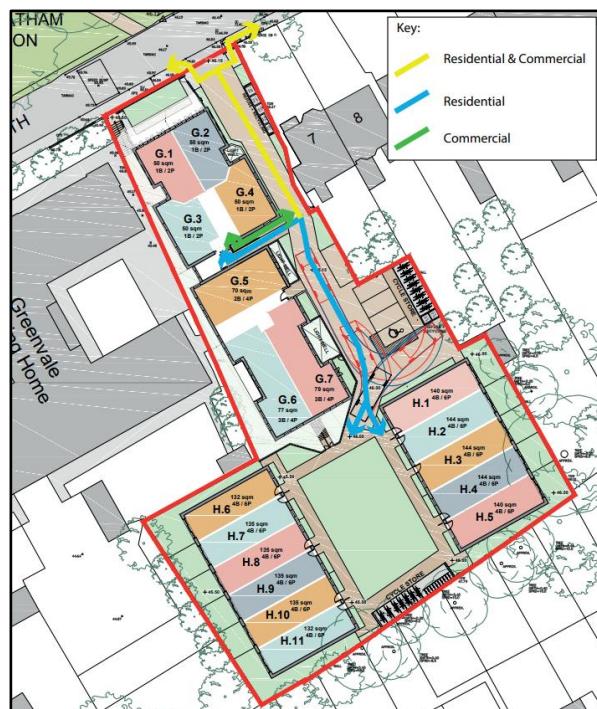
4.2.3 Vehicle swept path analysis indicating conflicting car movements passing through the access is provided in **Drawing 120** with extract below in **Figure 4.1**.

Figure 4.1: Extract of Drawing 120



- 4.2.4 Core access to the proposed flat block (Buildings A and B) is taken from the shared surface. Access to the proposed commercial floor space is taken from a series of steps that emerge direct onto Streatham Common South, along the site's western boundary. Additional lift access to the commercial space is taken from a separate entrance adjacent the residential core. Pedestrian access arrangements are indicated in **Figure 4.2** below.

Figure 4.2: Pedestrian Access Arrangements



4.3 Cycle Parking

- 4.3.1 In terms of cycle parking, the scale and mix of residential development requires a total of 51 cycle parking spaces.
- 4.3.2 The proposals include two secure and sheltered cycle stores adjacent the car parking area and to the rear of the landscaped courtyard. The shelters are sized to accommodate both a mix of Sheffield stands and two-tier racks, with stands accounting for in excess of 25% of the total. The proposals include 4 houses with direct access to their rear gardens and it is envisaged that their cycle parking requirements will be accommodated within this curtilage. The remaining 43 cycle parking spaces that are required will be accommodated within the shelters.
- 4.3.3 The shelter within the parking area is within an area that is approximately 4.5m wide and is therefore sufficient in width to accommodate both the parked cycles and access.
- 4.3.4 The cycle stores are also able to cater for the commercial floor space requirement and can be portioned away from the residential provision if necessary.
- 4.3.5 The cycle stores will include domestic power points to allow for the recharge of electric bikes.

4.4 Car Parking

- 4.4.1 The scale of development requires the provision of two blue badge parking spaces for residents. The proposals include one space for this user group, and it is envisaged that the additional space be provided for on-street as and when demand dictates and the Applicant will fund any additional traffic regulation order to secure this should demand dictate in the future. The on-site space is located within a parking area to the rear of the site and located to afford additional access width adjacent.
- 4.4.2 Any commercial parking blue badge requirement is also envisaged to be catered for on-street and, as above, the Applicant will fund any additional traffic regulation order to secure this should demand dictate in the future.
- 4.4.3 The pre-application feedback regarding car-free development expectations and London Plan policy are acknowledged. However public consultation feedback raised strong concerns about potential parking overspill generated by the proposals given the lack of on-street parking controls. In response to this concern and to reflect the fact that the proposals include a significant proportion of large four-bedroom family units with a higher propensity for car ownership, the development proposals also include 4 on-site car parking spaces for residents.
- 4.4.4 Whilst it is acknowledged that there are aspirations to introduce a CPZ within the wider area, its introduction is dependent on resident support. Should there be any risk that it is not supported then the provision of on-site car parking helps to partially mitigate the risk of overspill and address resident concerns.

- 4.4.5 The net impact of potential parking overspill has also been quantified. To quantify this potential impact, 2011 Census car ownership data for the ward within which the site is located, 'Streatham South', has been reviewed and specifically Table CT0103, which summarises the 'Accommodation type by tenure by number of rooms by car or van availability.'
- 4.4.6 Within Table CT0103, flats with 1-3 habitable rooms are assumed to represent one-bedroom units, flats with 4 habitable rooms are assumed to represent two-bedroom units, and flats with 5 habitable rooms are assumed to represent three-bedroom units. Houses with four-bedrooms are represented by houses with 6 habitable rooms. The ownership ratios have however been applied to only 7 of the proposed houses on the assumption that the 4 on-site parking spaces are provided to 4 of the units.
- 4.4.7 In terms of tenure, we have considered the proposals to be privately owned by residents. This type of tenure is generally associated with a higher level of car parking ownership than tenures associated with shared ownership, private/social rent or living rent free, and is therefore considered to be a robust analysis.
- 4.4.8 **Table 4.1** below identifies the car ownership proportions and applies this to the proposed number of units to estimate the anticipated demand for on-site car parking.

Table 4.1: Anticipated Parking Demand

Unit Size	Number of Households					Average Car Ownership Per Unit	Proposed No. of Units	Anticipated Parking Demand
	Total No. of Flats	With 0 Car	With 1 Car	With 2 Cars	With 3+ Cars			
1-Bed Flat	158	87	66	4	1	0.49	6	3
2-Bed Flat	233	110	109	13	1	0.59	4	3
3-Bed Flat	61	19	34	8	0	0.82	6	5
4-Bed House	838	251	443	117	27	0.90	7	7
Total:							27	18

- 4.4.9 **Table 4.1** demonstrates that the proposed scale of development has the potential to generate the demand for 18 vehicles that will not be accommodated on-site.
- 4.4.10 Based on the parking stress levels set out in **Table 3.4**, were the potential parking demand set out in **Table 4.1** realised and allowed to park on-street, the development proposals would result in the following levels of parking stress:

Table 4.2: Impact of Development on Parking Stress

	Tuesday 2 nd February	Wednesday 3 rd February	Average
Parking Demand	77	81	79
Spare Capacity	38	34	36
Parking Stress	67%	70%	69%

- 4.4.11 **Table 4.2** indicates that the additional on-street parking demand would lead to an anticipated average parking stress level of 69%, with sufficient available kerb length across the study area to accommodate an additional 36 parked vehicles on average.
- 4.4.12 Therefore, should the introduction of a CPZ not be supported by local residents, this should not preclude the approval of the development and its associated impact.
- 4.4.13 Each of the on-site parking spaces will be provided with passive electric vehicle charging infrastructure, with an active charging point provided from the outset. The responsibility to upgrade passive provision to active will be that of the resident concerned.

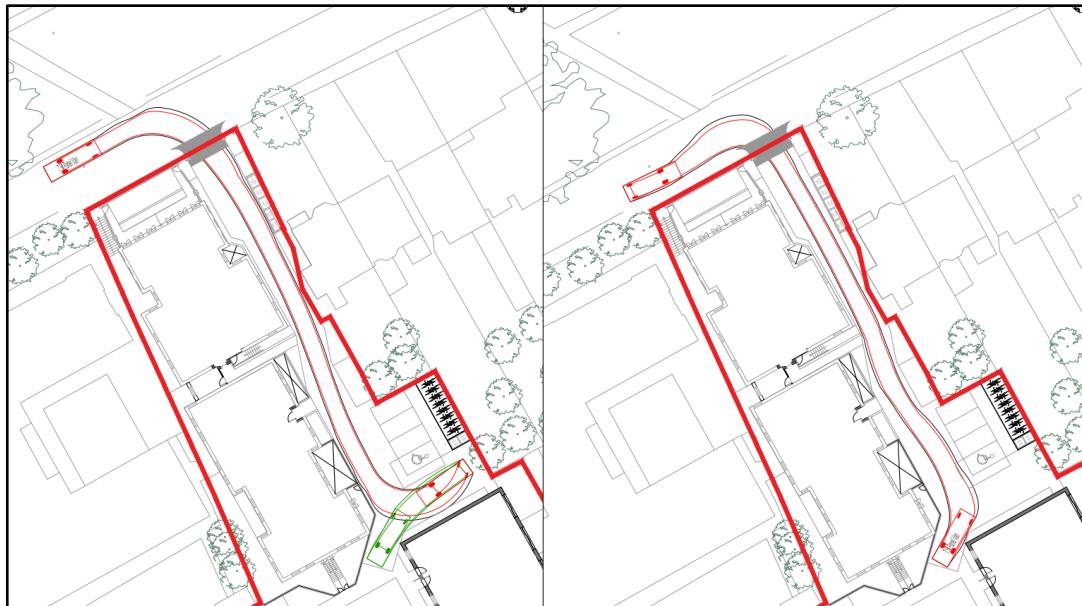
4.5 Delivery and Servicing Strategy

- 4.5.1 The development proposals include a turning head to the south of the site which has been sized to accommodate the vehicle swept path of a fire tender and box van, indicated in **Drawings 121** and **123** with extracts below in **Figure 4.1** and **Figure 4.4**. A fire tender is therefore able to get within 45m of each property.

Figure 4.3: Extract of Drawing 121

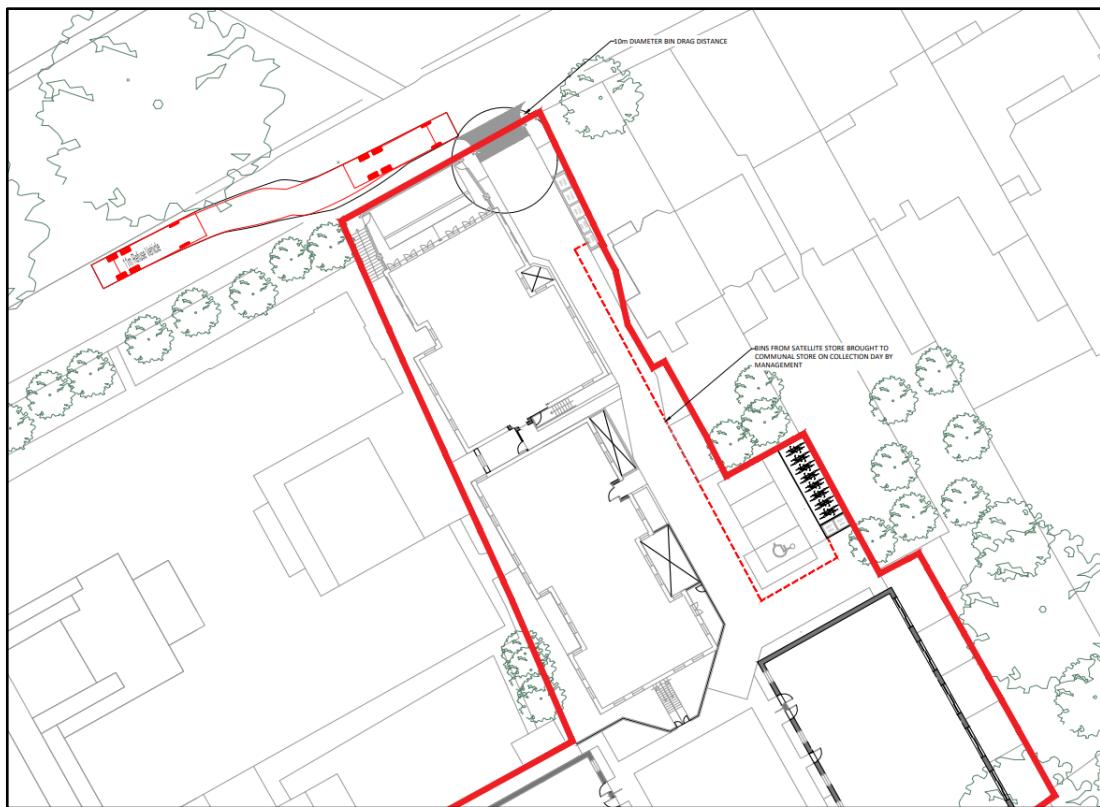


Figure 4.4: Extract of Drawing 123



- 4.5.2 This will ensure that everyday deliveries associated with the commercial floor space and residential units, such as post, internet deliveries, supermarket deliveries etc can be accommodated on-site.
- 4.5.3 In terms of refuse collection, the strategy is for refuse collection vehicles to not enter the site, with on-street collection envisaged, with the refuse wagon able to park within 10m drag distance of a communal bin store located within the site boundary. A satellite bin store is located within the rear parking area to be used by the proposed houses. On collection day, a management company will transfer these bins to the communal bin store location at the front of the site.
- 4.5.4 Commercial waste will be installed internally and brought to the front of the site for collection, with no contamination of waste streams.
- 4.5.5 These strategies are indicated below in **Figure 4.5**.

Figure 4.5: Refuse Strategies



5. Trip Generation

5.1 Overview

- 5.1.1 This section of the TA estimates the trip generation associated with the proposed land uses.
- 5.1.2 The following trip generation assessment encompasses the traditional weekday network peak hours of 08:00-09:00 and 17:00-18:00, as well as across the day (07.00-19.00).
- 5.1.3 The assessment has adopted a worst-case scenario in terms of vehicle movements by assuming there are no restrictions on car parking availability. Should the development become car-free, then clearly there would be no material traffic impact associated with the proposed change of use.

5.2 Existing Use

- 5.2.1 Trip generation associated with the existing builders' merchant has been calculated with reference to the industry standard TRICS database, using representative sites that share similar characteristics. Site selection criteria have been adopted as follows:
 - TRIP RATE for Land Use 01 - RETAIL/L – BUILDER'S MERCHANTS; and
 - Sites situated within Suburban Area or Edge of Town locations.
- 5.2.2 Sites were selected from regions across the UK given the lack of available sites in London.
- 5.2.3 Initially, this search returned 8 proxy sites; however, upon closer inspection, 4 of these sites were removed as they displayed anomalous data. The TRICS output for the remaining sites is appended to this report at **Appendix D**.
- 5.2.4 Due to the nature of the land use, all trips associated with the existing site are assumed to be vehicle trips.
- 5.2.5 Table 5.1 sets out the resultant trips per 100sqm of GFA, which has been applied to the existing GFA of 509sqm.

Table 5.1: Existing Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily Flows (07:00-21:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates per 100sqm	1.203	0.956	2.159	0.282	0.640	0.922	12.078	11.964	24.042
Trips (509 sqm)	6	5	11	1	3	5	61	61	122

- 5.2.6 **Table 5.2** therefore indicates that the existing site has the potential to generate approximately 11 vehicle movements in the AM peak, around 5 movements in the PM peak, and around 122 over the course of a typical day.

5.3 Proposed Residential

Flats

5.3.1 Multi-modal trip generation associated with the proposed private flats has been calculated with reference to the industry standard TRICS database, using representative sites that share similar characteristics. Site selection criteria have been adopted as follows:

- TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED;
- Sites located within Greater London; and
- Sites situated within Suburban Area, Edge of Town and Neighbourhood Centre locations.

5.3.2 Initially, this search returned 16 proxy sites; however, upon closer inspection, 11 of these sites were removed as they had a car parking ratio above or below the desired range of 0.5-1 space per dwelling. The TRICS output for the remaining sites is appended to this report at **Appendix E**.

5.3.3 **Table 5.2** sets out the resultant ‘Total Person’ trip rates per dwelling, which have been applied to the proposed number of units proposed at the site to quantify the associated trip generation.

Table 5.2: Proposed Flats Trip Rates

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily Flows (07:00-21:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates per Dwelling	0.067	0.393	0.46	0.259	0.157	0.416	2.212	2.437	4.649
Trips (16 Flats)	1	6	7	4	3	7	35	39	74

5.3.4 **Table 5.2** therefore indicates that the proposed scale of development is anticipated to generate approximately 32 total people movements in the AM peak, around 29 movements in the PM peak, and around 237 over the course of a typical day.

Houses

5.3.5 As in the case of the flats, the TRICS database has been used to calculate the multi-modal trip generation associated with the proposed houses, with a similar site selection criteria. **Table 5.2** sets out the resultant ‘Total Person’ trip rates per dwelling, which have been applied to the proposed number of units proposed at the site to quantify the associated trip generation.

Table 5.3: Proposed House Trip Rates

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily Flows (07:00-21:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates per Dwelling	0.123	0.598	0.721	0.434	0.244	0.678	4.786	4.372	9.158
Houses (11 Units)	1	7	8	5	3	7	53	48	101

Total Multi-modal Trips

- 5.3.6 Method of Travel to Work data for the Resident Population of MSOA Lambeth 034, taken from the 2011 Census has then been used to proportion these ‘Total Person’ trips to different modes of travel, with the modal splits outlined in **Table 5.4**. Whilst it is acknowledged that other trip purposes will have different modal splits, Travel to Work trips are considered to act as a reasonable proxy.
- 5.3.7 As explained above, this approach does not therefore take into account the potential car-free nature of the development proposals should a CPZ be implemented, which would otherwise see the car driver proportions adopted below be reduced to minimal levels.

Table 5.4: Resident Population Mode Splits

Mode	Census Mode Split
Underground, metro, light rail or tram	14%
Train	37%
Bus, minibus or coach	15%
Taxi	0%
Motorcycle, scooter or moped	2%
Driving a car or van	21%
Passenger in a car or van	1%
Bicycle	5%
On foot	4%
Other method of travel to work	1%
Total	100%

- 5.3.8 **Table 5.5** then applies these modal splits to the ‘Total Person’ trips for both the proposed number of flats and houses to quantify the anticipated multimodal trip generation associated with the residential element of the proposals.

Table 5.5: Flats Multi-modal Trip Generation

Mode	Census Mode Split	AM Peak			PM Peak			Daily Flows		
		(08:00-09:00)			(17:00-18:00)			(07:00-21:00)		
		In	Out	Total	In	Out	Total	In	Out	Total
Underground, metro, light rail or tram	14%	0	2	2	1	1	2	12	12	24
Train	37%	1	5	6	3	2	5	33	32	65
Bus, minibus or coach	15%	0	2	2	1	1	2	13	13	27
Taxi	0%	0	0	0	0	0	0	0	0	0
Motorcycle, scooter or moped	2%	0	0	0	0	0	0	2	2	3
Driving a car or van	21%	1	3	3	2	1	3	18	18	36
Passenger in a car or van	1%	0	0	0	0	0	0	1	1	2
Bicycle	5%	0	1	1	0	0	1	5	5	10
On foot	4%	0	1	1	0	0	1	4	4	7
Other method of travel to work	1%	0	0	0	0	0	0	1	1	1
Total	100%	2	13	15	9	5	14	88	87	175

- 5.3.9 Table 5.5 therefore demonstrates that, under this assumed scenario with no parking restrictions, the proposed residential units would generate 3 vehicle movements in the AM peak, 3 in the PM peak and 36 across the day.
- 5.3.10 **Table 5.5** confirms that the majority of trips associated with the proposed residential use at the site are associated with public transport modes, with around 116 trips likely to be undertaken by rail or by bus, with approximately 7 direct daily trips undertaken by foot, and 10 direct trips undertaken by bicycle. The public transport trips will in turn generate indirect pedestrian trips.
- 5.3.11 Given the range of public transport infrastructure available from the site's location, these additional demands are unlikely to have a material impact on capacities.

Residential Servicing Trips

- 5.3.12 In terms of residential servicing trips, based on our experience, residential developments typically generate a daily delivery vehicle movement per 15 units.

5.4 Proposed Light Industrial Use

- 5.4.1 As with the proposed residential use, the TRICS database has been interrogated to identify appropriate trip rates to reflect the proposed light industrial use at the site. Proxy sites have been selected based on the following criteria:
- TRIP RATE for Land Use 02 - EMPLOYMENT/C – INDUSTRIAL UNIT; and
 - Sites situated within Suburban Area or Edge of Town locations.

- 5.4.2 Sites were selected from regions across the UK given the lack of available sites in London.
- 5.4.3 This search returned 15 proxy sites; however, upon closer inspection, 10 of these sites were mislabelled and did not in fact comprise of predominantly light industrial uses. The TRICS output for the remaining sites is appended to this report at **Appendix F**.
- 5.4.4 **Table 5.2** sets out the resultant ‘Total Person’ trip rates per dwelling, which have been applied to the proposed floor area at the site to quantify the associated trip generation.

Table 5.6: Proposed Light Industry Trip Rates

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily Flows (07:00-21:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates per 100sqm	0.341	0.101	0.442	0.28	0.288	0.568	2.167	1.969	4.136
Trips (310sqm)	1	0	1	1	1	2	7	6	13

- 5.4.5 **Table 5.2** therefore indicates that the proposed scale of development is anticipated to generate a negligible number of movements in both the AM and PM peaks, and around 13 over the course of a typical day.
- 5.4.6 Method of Travel to Work data for the Workplace Population of MSOA Lambeth 034, taken from the 2011 Census has then been used to proportion these ‘Total Person’ trips to different modes of travel, with the modal splits outlined in **Table 5.7**. Again, the analysis has assumed no restriction on car parking availability for this commercial use to present a worst case scenario in terms of vehicle impact.

Table 5.7: Workplace Population Mode Splits

Mode	Census Mode Split
Underground, metro, light rail or tram	9%
Train	21%
Bus, minibus or coach	19%
Taxi	0%
Motorcycle, scooter or moped	1%
Driving a car or van	36%
Passenger in a car or van	2%
Bicycle	3%
On foot	8%
Other method of travel to work	1%
Total	100%

- 5.4.7 **Table 5.8** then applies the adjusted modal split to the ‘Total Person’ trips to quantify the anticipated multimodal trip generation associated with the commercial element of the proposals.

Table 5.8: Office Multi-modal Trip Generation

Mode	Census Mode Split	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily Flows (07:00-21:00)		
		In	Out	Total	In	Out	Total	In	Out	Total
Underground, metro, light rail or tram	9%	0	0	0	0	0	0	1	1	1
Train	21%	0	0	0	0	0	0	1	1	3
Bus, minibus or coach	19%	0	0	0	0	0	0	1	1	2
Taxi	0%	0	0	0	0	0	0	0	0	0
Motorcycle, scooter or moped	1%	0	0	0	0	0	0	0	0	0
Driving a car or van	36%	0	0	0	0	0	1	2	2	5
Passenger in a car or van	2%	0	0	0	0	0	0	0	0	0
Bicycle	3%	0	0	0	0	0	0	0	0	0
On foot	8%	0	0	0	0	0	0	1	0	1
Other method of travel to work	1%	0	0	0	0	0	0	0	0	0
Total	100%	1	0	1	1	1	2	7	6	13

- 5.4.8 **Table 5.8** therefore confirms that the proposed scale of commercial development is not anticipated to generate a material level of vehicle movements under this scenario.
- 5.4.9 In terms of additional servicing movements, the proposed scale of development is anticipated to generate 2 vehicle movements per day.

5.5 Total Proposed Trip Generation

- 5.5.1 Having calculated the trip generation associated with both the residential and light industry land uses, **Table 5.9** details the total numbers of trips likely to be generated by the development proposals.

Table 5.9: Total Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily Flows (07:00-19:00)		
	Arrival	Departure	Total	Arrival	Departure	Total	Arrival	Departure	Total
Underground, metro, light rail or tram	0	2	2	1	1	2	13	12	25
Train	1	5	6	3	2	6	34	34	68
Bus, minibus or coach	1	2	3	2	1	2	15	14	29
Taxi	0	0	0	0	0	0	0	0	1
Motorcycle, scooter or moped	0	0	0	0	0	0	2	2	3
Driving a car or van	1	3	4	2	1	4	21	20	41
Passenger in a car or van	0	0	0	0	0	0	1	1	2
Bicycle	0	1	1	1	0	1	5	5	10
On foot	0	1	1	0	0	1	4	4	8
Other method of travel to work	0	0	0	0	0	0	1	1	1
Servicing Trips							3	3	6
Total:	3	14	17	9	5	16	99	96	194

- 5.5.2 The number of trips shown in **Table 5.9** are not anticipated to result in a material impact on the local transport network.

5.6 Net Traffic Impact

- 5.6.1 **Table 5.10** below then demonstrates the potential traffic impact of the proposals under this scenario where restrictions on car parking are not implemented, summatting the residential and commercial vehicle and servicing trips and comparing this with the vehicle trips associated with the existing use.

Table 5.10: Net Impact

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily Flows (07:00-21:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Existing Vehicle Movements	6	5	11	1	3	5	61	61	122
Proposed Vehicle Movements	1	3	4	2	1	4	24	23	47
Net Traffic Impact	-5	-2	-7	1	-2	-1	-37	-38	-75

5.6.2 **Table 5.10** therefore confirms that the proposed scale of development is anticipated to result in reduction in vehicle movements even under a scenario when car parking is not restricted.

5.6.3 Should a CPZ be implemented, and the development proposals are made car-free, then the scale of traffic impact will be even further reduced.

6. Summary and Conclusion

- 6.1.1 Markides Associates have been appointed by Streatham Common South Properties to produce this Transport Assessment in support of redevelopment proposals for a site, 6 Streatham Common South, located within the London Borough of Lambeth.
- 6.1.2 The development proposals are for the demolition of existing buildings on-site and the introduction of 27 residential dwellings, to consist of 6 x one-bedroom flats, 4 x two-bedroom flats, 6 x three-bedroom flats and 11 x four-bedroom houses. Additionally, the development proposals include approximately 310sqm GFA of light industry use on-site. The proposals will be supported by 5 x on-site car parking spaces (including 1no. disabled bay) and policy compliant cycle parking spaces.
- 6.1.3 The scope of the Transport Assessment has been informed by preapplication dialogue with officers.
- 6.1.4 The TA has identified that the site is located within a sustainable location both in terms of access to social infrastructure and public transport infrastructure, ensuring residents can adopt sustainable modes of travel to access essential services.
- 6.1.5 The development proposals can be accessed by all user groups, with on-site delivery and servicing accommodated and an on-street refuse collection strategy. The development proposals also include secure and sheltered cycle parking for all user groups, with a mix of two-tier racks and Sheffield stands.
- 6.1.6 Whilst planning policy dictates a car-free development for this location, public consultation has raised concerns regarding potential parking overspill. On this basis the development proposals include 4 car parking spaces that will be made available to residents, with the large proportion of four-bedroom units likely to have a higher propensity for car ownership. The proposals also include an additional on-site blue badge parking space. This provision will help to mitigate the potential parking overspill from the site.
- 6.1.7 The TA has undertaken a trip generation analysis to demonstrate that the proposed change of use will not result in a material traffic impact compared with that associated with the existing use.
- 6.1.8 On this basis, Markides Associates are of the view that there are no transport related reasons why the proposals should not be supported.

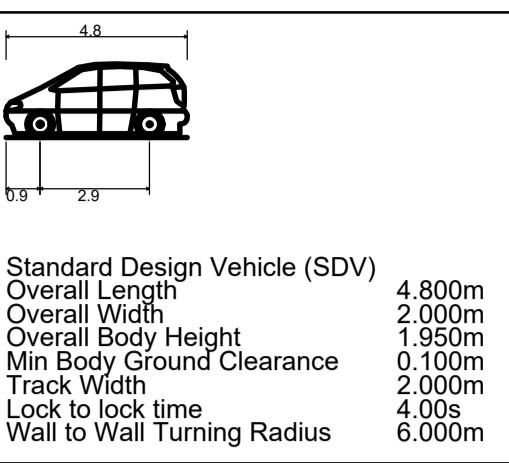
DRAWINGS

Drawing 120 – Conflicting Car Movements

Drawing 121 – Fire Tender Swept Path

Drawing 123 – Panel Van Swept Path

Drawing 122 – Refuse Vehicle Swept Path



Standard Design Vehicle (SDV)
 Overall Length 4.800m
 Overall Width 2.000m
 Overall Body Height 2.00m
 Min Box Ground Clearance 0.100m
 Track Width 2.00m
 Lock to lock time 4.00s
 Wall to Wall Turning Radius 6.000m

PEDESTRIAN VISIBILITY SPLAY 1.5m X 1.5m

Revision History					
P02	FOR INFORMATION	CDT	AS	AS	05.07.21
P01	FOR INFORMATION	CDT	AS	AS	11.06.21
Rev	Comment	By	Chkd	Appr	Date
Current Revision					
P02	FOR INFORMATION	CDT	AS	AS	05.07.21
Rev	Comment	By	Chkd	Appr	Date

S2 - FOR INFORMATION

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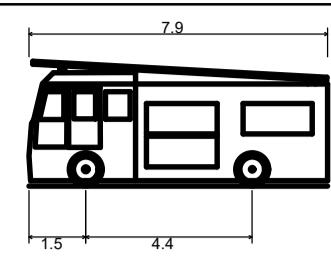
Project STREATHAM COMMON

Drawing Title VEHICLE SWEEP PATH
(CONFLICTING CAR)

Markides Associates reference: 20365/01 Scale 1:200 @ A1 - 1:400 @ A3

1:200 @ A1 20365-MA-XX-XX-DR-C-0120 - P02

DO NOT SCALE OFF THIS DRAWING



Pumping Appliance
Overall Length 7.900m
Overall Width 3.300m
Overall Body Height 3.300m
Min Body Ground Clearance 0.140m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 7.750m

Revision History					
P02	FOR INFORMATION	CDT	AS	AS	05.07.21
P01	FOR INFORMATION	CDT	AS	AS	11.06.21
Rev	Comment	By	Chkd	Appr	Date

Current Revision					
P02	FOR INFORMATION	CDT	AS	AS	05.07.21
Rev	Comment	By	Chkd	Appr	Date

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Project

STREATHAM COMMON

Drawing Title

VEHICLE SWEPT PATH (FIRE TENDER)

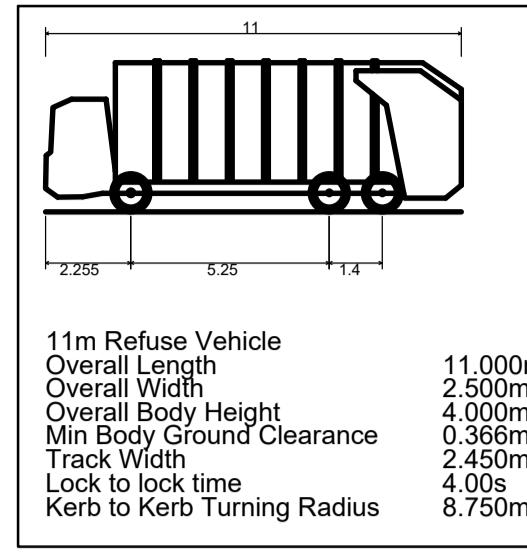
Markides Associates reference: 20365/01 Scale 1:200 @ A1 - 1:400 @ A3 1:200 @ A1

20365-MA-XX-XX-DR-C-0121 - P02

Scale 1:200 @ A1 - 1:400 @ A3

4m 0 4m 8m 12m 16m 20m

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10m DIAMETER BIN DRAG DISTANCE

11m Refuse Vehicle

BINS FROM SATELLITE STORE BROUGHT TO
COMMUNAL STORE ON COLLECTION DAY BY
MANAGEMENT

Revision History					
P02	FOR INFORMATION	CDT	AS	AS	05.07.21
P01	FOR INFORMATION	CDT	AS	AS	11.06.21
Rev	Comment	By	Chkd	Appr	Date
Current Revision					
P02	FOR INFORMATION	CDT	AS	AS	05.07.21
Rev	Comment	By	Chkd	Appr	Date

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Project

STREATHAM COMMON

Drawing Title

VEHICLE SWEEP PATH (REFUSE)

Scale 1:200 @ A1 - 1:400 @ A3

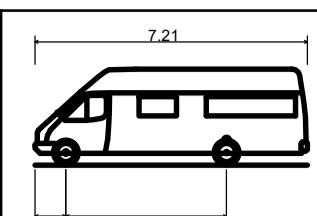
4m 0 4m 8m 12m 16m 20m

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Markides Associates reference: 20365/01 1:200 @ A1

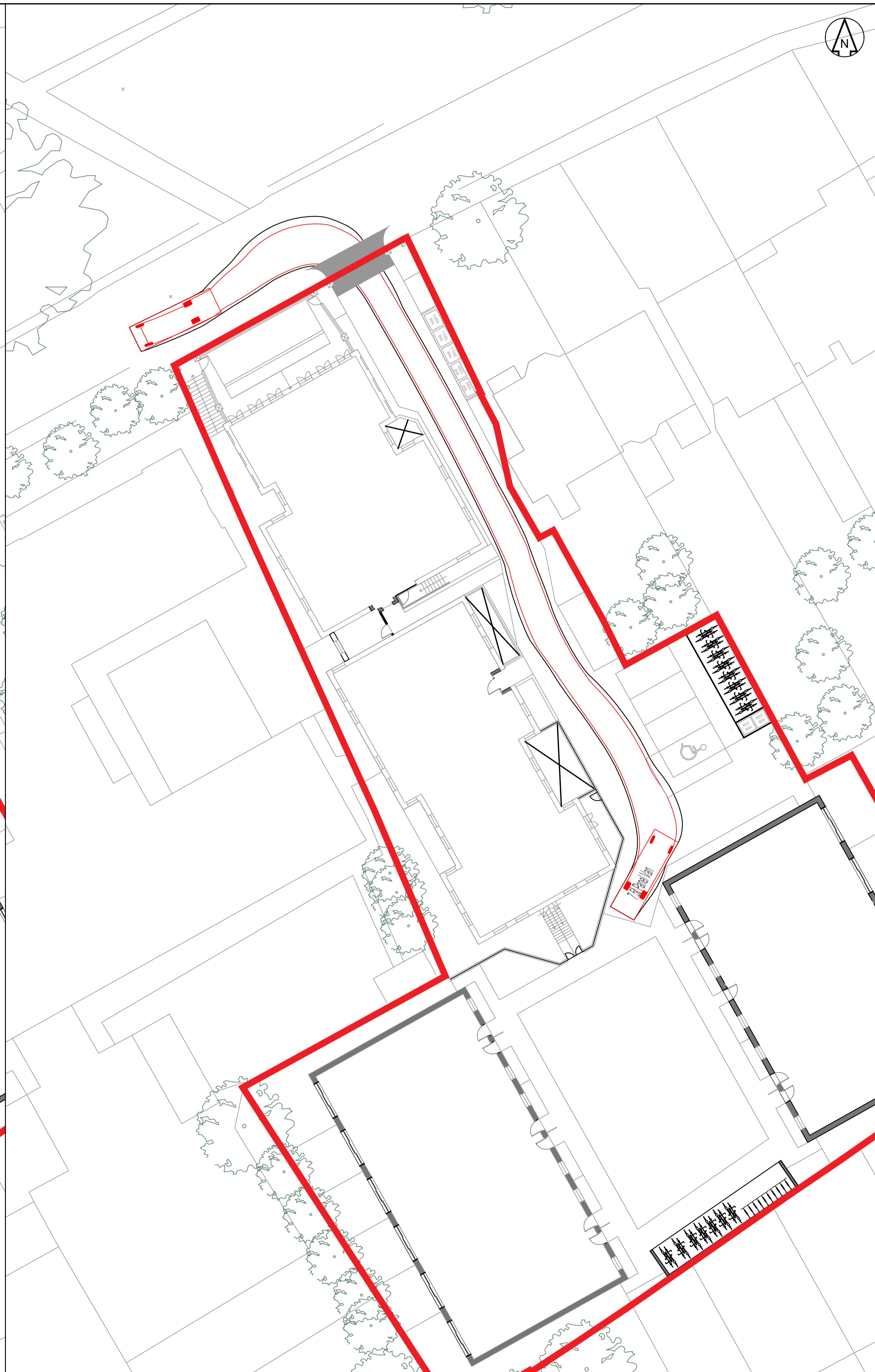
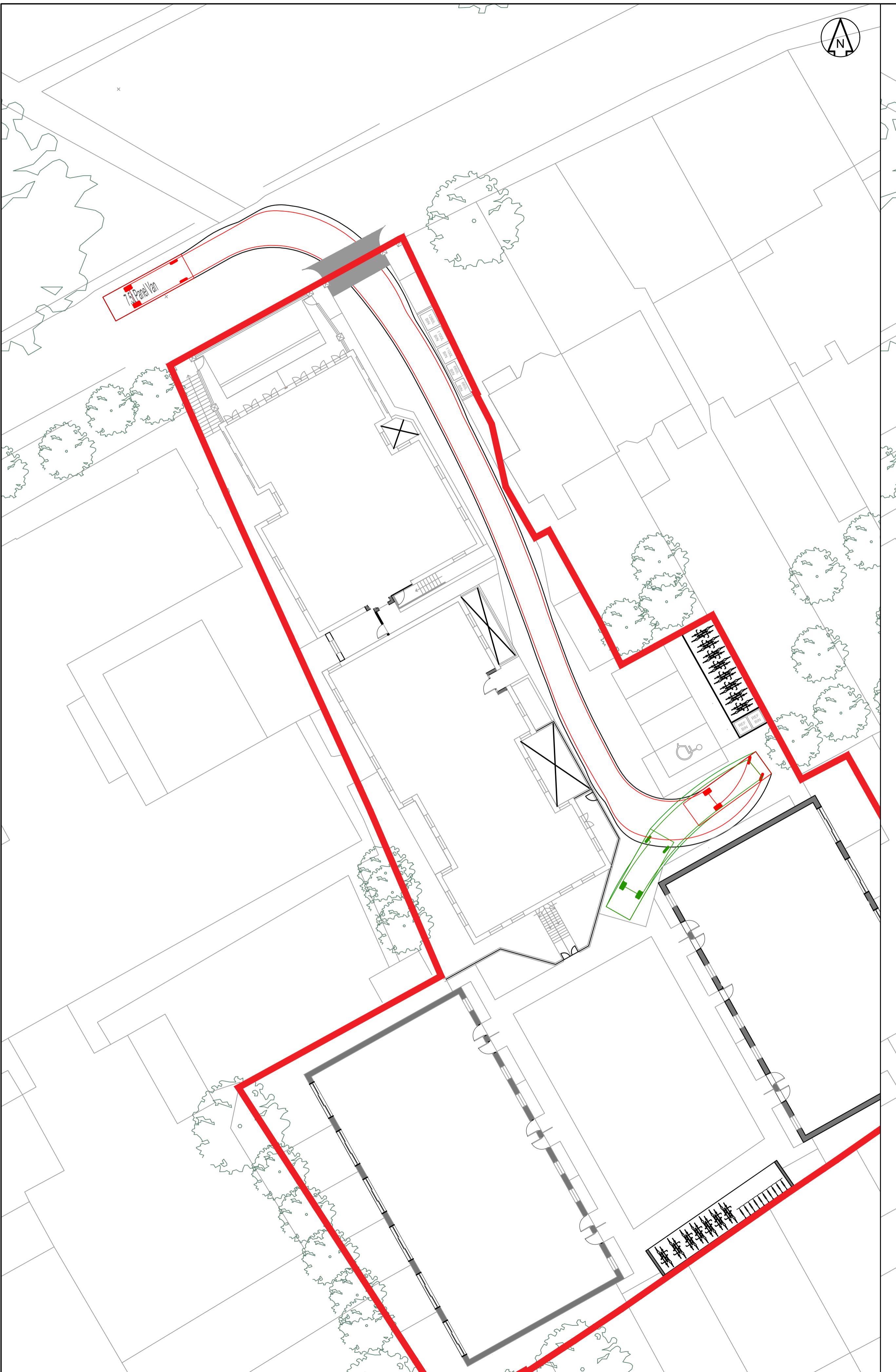
20365-MA-XX-XX-DR-C-0122 - P02

DO NOT SCALE OFF THIS DRAWING



7.5t Panel Van
Overall Length
Overall Width
Overall Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius

7.210m
2.192m
2.545m
1.16m
1.865m
4.00s
7.400m



Revision History					
P02	FOR INFORMATION	CDT	AS	AS	05.07.21
P01	FOR INFORMATION	CDT	AS	AS	11.06.21
Rev	Comment	By	Chkd	Appr	Date

Current Revision					
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Rev	Comment	By	Chkd	Appr	Date

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Project

STREATHAM COMMON

Drawing Title

VEHICLE SWEPT PATH (PANEL VAN)

Markides Associates reference: 20365/01 Scale 1:200 @ A1 - 1:400 @ A3

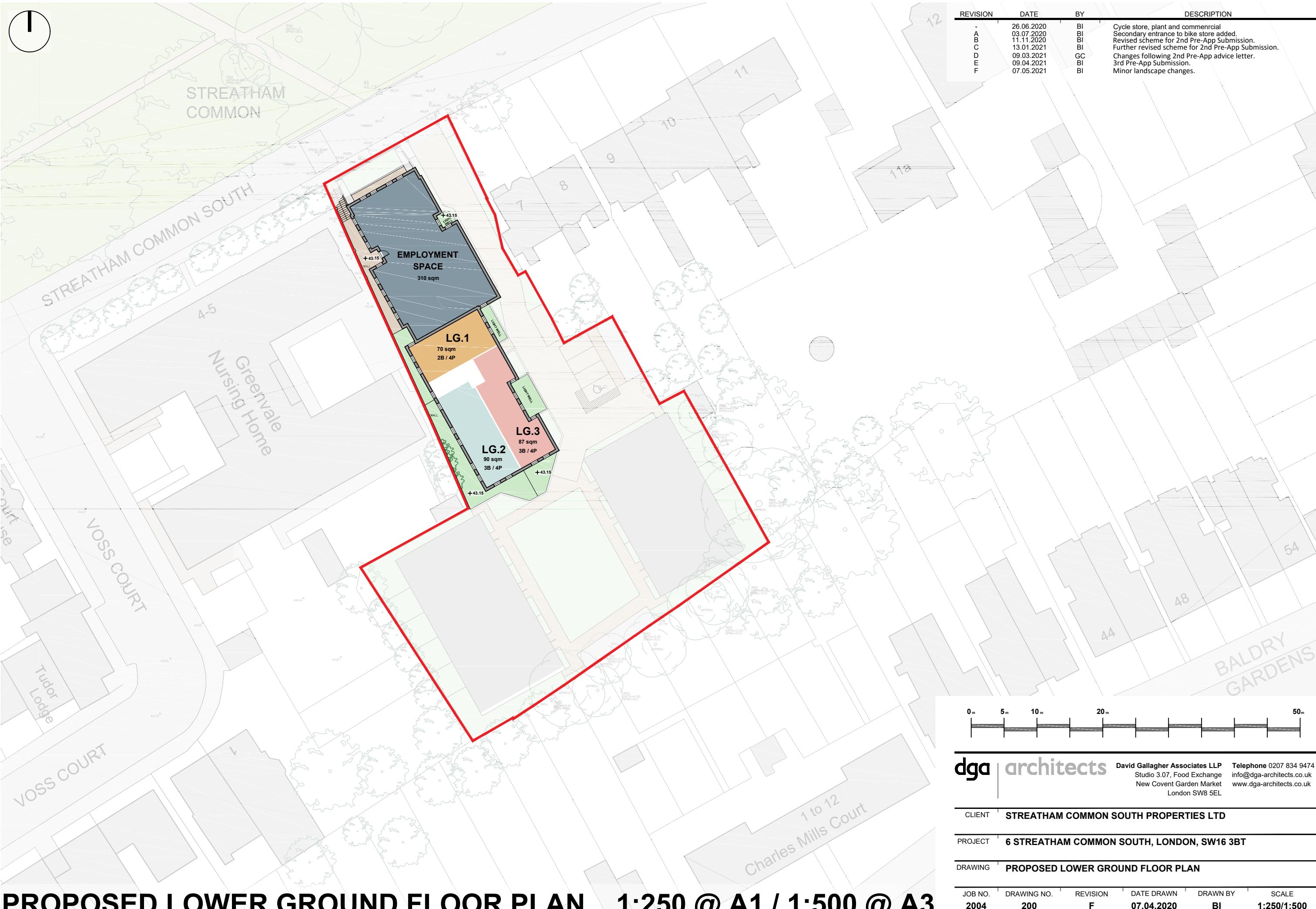
1:200 @ A1

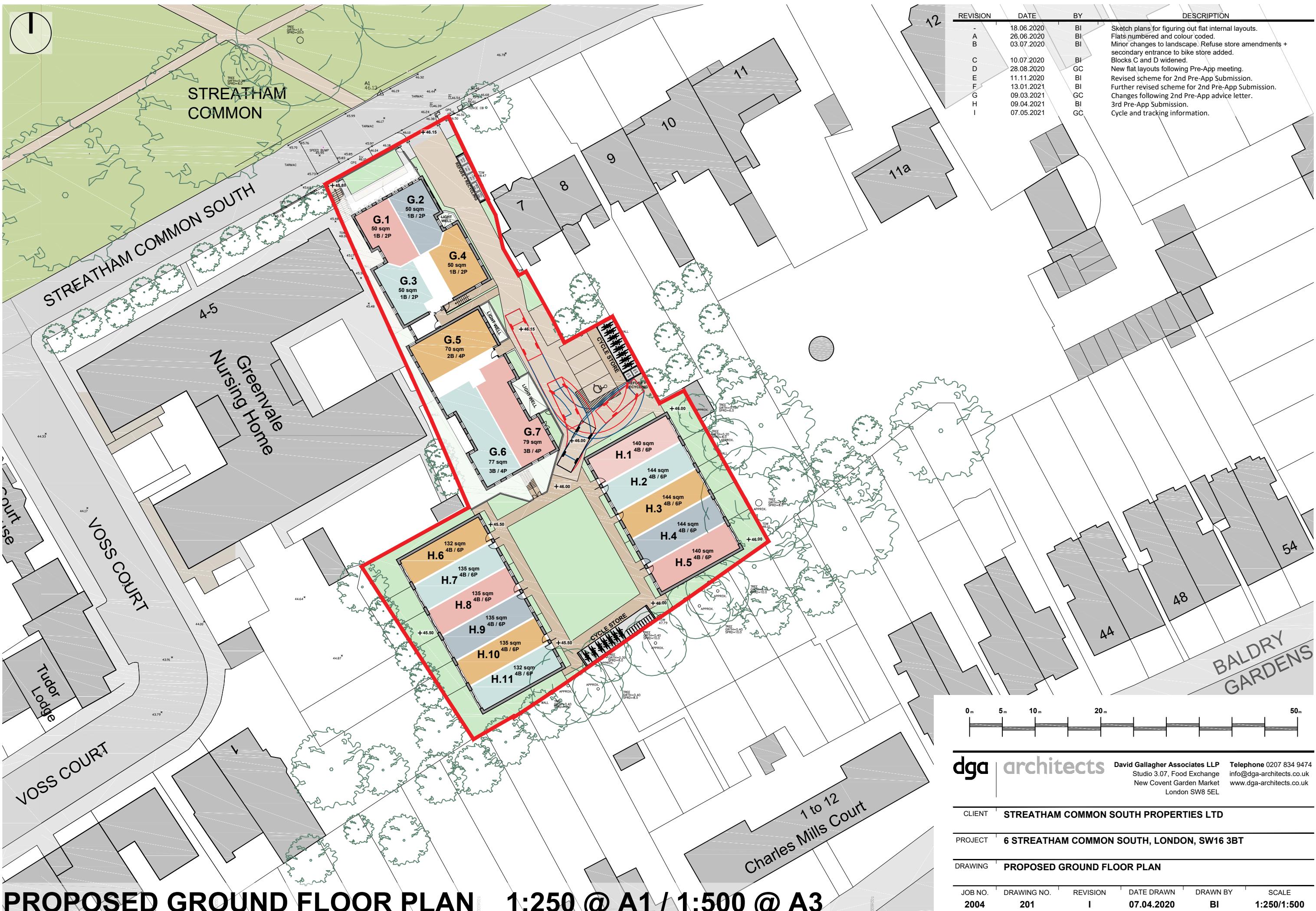
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Scale 1:200 @ A1 - 1:400 @ A3
4m 0 4m 8m 12m 16m 20m

20365-MA-XX-XX-DR-C-0123 - P02

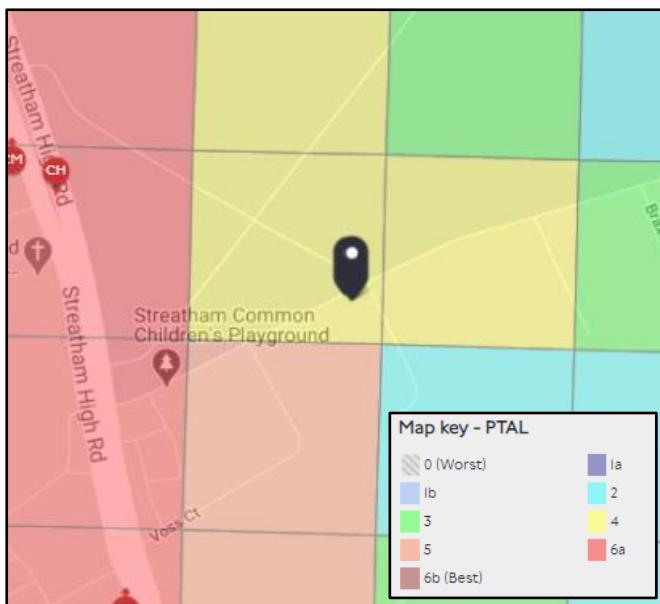
APPENDIX A – PROPOSED SITE LAYOUT





APPENDIX B – PTAL OUTPUT

WebCAT PTAL Report



Site Details

Grid Cell: 35103

Easting: 530345

Northing: 170752

Report Date: 05/07/2021

Scenario: Base Year

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

Rail	Streatham 0.29 0.5	'BEDFDM-SUTTON 1013 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'BEDFDM-SUTTON 1V23 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'BEDFDM-SUTTON 1V82 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'SUTTON-LUTON 2000 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'SUTTON-BEDFDM 2004 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'SUTTON-STALBCY 2006 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.73 0.5	'SUTTON-LUTON 2010 ' 0.36	833.47 1	10.42	30.75	41.17
Rail	Streatham 0.54 0.5	'LUTON-SUTTON 2017 ' 0.27	833.47 0.67	10.42	45.53	55.94
Rail	Streatham 0.29 0.5	'STALBCY-SUTTON 2021 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.54 0.5	'STALBCY-SUTTON 2029 ' 0.27	833.47 0.67	10.42	45.53	55.94
Rail	Streatham 0.29 0.5	'SUTTON-STALBCY 2V02 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.54 0.5	'SUTTON-STALBCY 2V08 ' 0.27	833.47 0.67	10.42	45.53	55.94
Rail	Streatham 0.29 0.5	'BEDFDM-SUTTON 2V15 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'SUTTON-BEDFDM 2V16 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'LUTON-SUTTON 2V19 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'SUTTON-KNTSHTN 2V20 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'STALBCY-SUTTON 2V27 ' 0.15	833.47 0.33	10.42	91.66	102.08
Rail	Streatham 0.29 0.5	'LUTON-SUTTON 2V31 ' 0.15	833.47 0.33	10.42	91.66	102.08

Total Grid Cell AI: 18.74

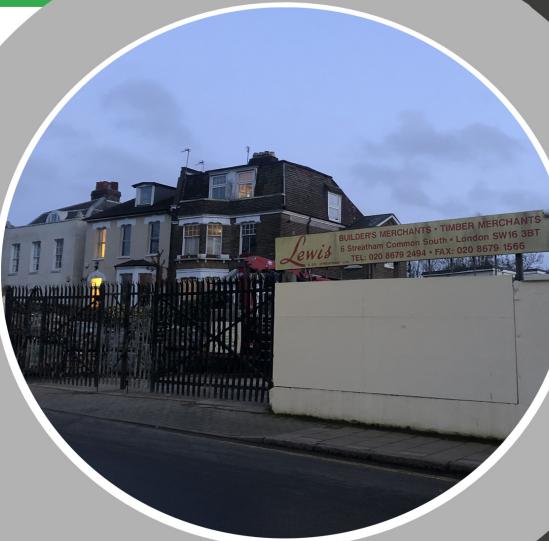
PTAL: 4

APPENDIX C – PARKING STRESS SURVEY RESULTS



RADIAL
UK PARKING BEAT
SURVEY SPECIALISTS

6 STREATHAM COMMON SOUTH
SW16 3BT



PARKING BEAT SURVEY

TUESDAY 2 FEBRUARY 2021 / 00:30
WEDNESDAY 3 FEBRUARY 2021 / 00:30

SURVEY DETAILS

Survey Type	PARKING BEAT SURVEY
Methodology Guidance	London Borough of Lambeth
Site	6 STREATHAM COMMON SOUTH, SW16 3BT
Survey Area	200M
Date/s	TUESDAY 2 FEBRUARY 2021 WEDNESDAY 3 FEBRUARY 2021
Time/s	00:30
Beat Frequency	SNAPSHOT
Unit for 1 Unmarked Lengthwise Space (m)	5
Unit for 1 Unmarked Crosswise Space (m)	2.5
Areas Excluded From Survey	Private parking spaces, private roads and off road parking (unless requested in survey specification).
Sections of road excluded from parking capacity calculation	First 7.5m from junction mouth (for reasons of highway safety). Crossovers, dropped kerbs, build-outs, traffic islands, 24/7 illegal parking. Sections of legal lengthwise parking between illegal parking (crossover, dropped kerbs, double yellow etc) that measure less than the unit specified for 1 space. Where the width of the road is such that parking on both sides would cause an obstruction. In this instance one side of the road has been excluded from the capacity calculation.
Parking excluded from stress calculation	Skips or any other non-vehicle occupying a parking space (but noted separately if observed). Any illegal parking on double yellow lines, crossovers, keep clear lines etc (but noted separately if observed).
Terminology	"Parking Stress" - Calculation to express the number of parked vehicles as a percentage of available parking for each parking type. Stress can be over 100% if cars are small and/or parked very closely together. "Parking Capacity Calculation" - Measurement of each length of road between illegal parking (e.g. crossovers, traffic islands, double yellow etc) converted into parking spaces by rounding down to the nearest unit assigned to one parking space and dividing this figure by the unit. "Lengthwise Parking" - Vehicles parked in a lengthwise orientation with wheels parallel to the kerbside. "Crosswise Parking" - Vehicles parked in a crosswise orientation (as seen in car parks or wide sections of road)



RADIAL
UK PARKING BEAT
SURVEY SPECIALISTS

SITE PLAN
6 STREATHAM COMMON SOUTH, SW16 3BT
PARKING BEAT STREET INVENTORY MAP



PARKING STRESS TABLES

		Restriction	1	Unrestricted							
Location		Lengthwise Parking (m)		Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces		TUESDAY 2 FEBRUARY 2021	00:30	WEDNESDAY 3 FEBRUARY 2021	00:30
								Occupied	Spaces	Occupied	Spaces
Braxted Park	140	28	0	28		59		17	11	19	9
Streatham Common Road	295	59	0	59				17	42	21	38
Voss Court	140	28	0	28				25	3	23	5
Total	575	115	0	115				59	56	63	52
		Restriction	2	Red Route-No Stopping Mon-Sat 7am-7pm/Except 10am-4pm Loading Max 20 Mins							
Location		Lengthwise Parking (m)		Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces		TUESDAY 2 FEBRUARY 2021	00:30	WEDNESDAY 3 FEBRUARY 2021	00:30
								Occupied	Spaces	Occupied	Spaces
Streatham High Road	10	2	0	2		2		0	2	0	2
Total	10	2	0	2				0	2	0	2
		Restriction	3	Disabled Permit Holders							
Location		Lengthwise Parking (m)		Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces		TUESDAY 2 FEBRUARY 2021	00:30	WEDNESDAY 3 FEBRUARY 2021	00:30
								Occupied	Spaces	Occupied	Spaces
Braxted Park	0	0	1	1		1		1	0	1	0
Voss Court	0	0	3	3				0	3	1	2
Total	0	0	4	4				1	3	2	2
Illegal/Obstructive Parking											
Location		Description		TUESDAY 2 FEBRUARY 2021				WEDNESDAY 3 FEBRUARY 2021			
				00:30		00:30		00:30		00:30	
Voss Court		Crossover		Occupied		Occupied		Occupied		Occupied	
Total				4		4		4		3	

PARKING CAPACITY MEASUREMENTS

A working table showing kerbside measurements for each parking type.

Location	Side of Road & Measuring Orientation	Parking Type	Section Length (m)	Crosswise Spaces or Lengthwise Marked Bays	Number of Crosswise Spaces or Marked Bays	Unit Round Down (If Lengthwise & Unmarked)	Total Spaces
Braxted Park	W N-S	Double Yellow	2.1			0	0
Braxted Park	W N-S	Crossing	2.8			0	0
Braxted Park	W N-S	Double Yellow	9.1			5	1
Braxted Park	W N-S	Crossover	4.2			0	0
Braxted Park	W N-S	Unrestricted	14.7			10	2
Braxted Park	W N-S	Crossover	7			5	1
Braxted Park	W N-S	Unrestricted	20.5			20	4
Braxted Park	W N-S	Crossover	3.6			0	0
Braxted Park	W N-S	Unrestricted	11.2			10	2
Braxted Park	W N-S	Crossover	4.9			0	0
Braxted Park	W N-S	Unrestricted	22.1			20	4
Braxted Park	W N-S	Double Yellow	5.8			5	1
Braxted Park	W N-S	Crossing	2.1			0	0
Braxted Park	W N-S	Double Yellow	2.8			0	0
Braxted Park	E S-N	Double Yellow	2.8			0	0
Braxted Park	E S-N	Crossing	2.1			0	0
Braxted Park	E S-N	Double Yellow	5.6			5	1
Braxted Park	E S-N	Unrestricted	49.7			45	9
Braxted Park	E S-N	Disabled Permit Holders	6.3	LW	1		1
Braxted Park	E S-N	Unrestricted	36.3			35	7
Braxted Park	E S-N	Double Yellow	5.6			5	1
Braxted Park	E S-N	Crossing	2.5			0	0
Braxted Park	E S-N	Double Yellow	2.1			0	0
Streatham Common Road	S E-W	Double Yellow	11.9			10	2
Streatham Common Road	S E-W	Unrestricted	10			10	2
Streatham Common Road	S E-W	Crossover	4.2			0	0
Streatham Common Road	S E-W	Unrestricted	10			10	2
Streatham Common Road	S E-W	Crossover	4.2			0	0
Streatham Common Road	S E-W	Unrestricted	5.6			5	1
Streatham Common Road	S E-W	Crossover	4.2			0	0
Streatham Common Road	S E-W	Unrestricted	7.7			5	1
Streatham Common Road	S E-W	Crossover	4.2			0	0
Streatham Common Road	S E-W	Unrestricted	5.6			5	1
Streatham Common Road	S E-W	Crossover	5.6			5	1
Streatham Common Road	S E-W	Unrestricted	6.3			5	1
Streatham Common Road	S E-W	Crossover	4.9			0	0
Streatham Common Road	S E-W	Crossover	4.2			0	0
Streatham Common Road	S E-W	Unrestricted	11.2			10	2
Streatham Common Road	S E-W	Double Yellow	4.6			0	0
Streatham Common Road	S E-W	Junction	7			5	1
Streatham Common Road	S E-W	Double Yellow	11.9			10	2
Streatham Common Road	S E-W	Unrestricted	23.8			20	4
Streatham Common Road	S E-W	Crossover	4.2			0	0
Streatham Common Road	S E-W	Unrestricted	8.1			5	1
Streatham Common Road	S E-W	Double Yellow	164.2			160	32
Streatham Common Road	S E-W	Junction	11.2			10	2
Streatham Common Road	S E-W	Double Yellow	46.2			45	9
Streatham Common Road	S E-W	Access Junction	11.2			10	2
Streatham Common Road	S E-W	Double Red	7.7			5	1
Streatham Common Road	S E-W	Crossing	4.2			0	0
Streatham Common Road	S E-W	Double Red	4.2			0	0
Streatham Common Road	N W-E	Double Red	2.8			0	0
Streatham Common Road	N W-E	Crossing	3.5			0	0
Streatham Common Road	N W-E	Double Red	16.1			15	3
Streatham Common Road	N W-E	Double Yellow	130.2			130	26
Streatham Common Road	N W-E	Unrestricted	135.6			135	27
Streatham Common Road	N W-E	Double Yellow	30.8			30	6
Streatham Common Road	N W-E	Unrestricted	85.3			85	17
Streatham Common Road	N W-E	Double Yellow	12.6			10	2
Streatham High Road	E S-N	Double Red	65			65	13
Streatham High Road	E S-N	Junction	13.3			10	2
Streatham High Road	E S-N	Double Red	9.8			5	1
Streatham High Road	E S-N	Crossing	3.5			0	0
Streatham High Road	E S-N	Double Red	81.2			80	16
Streatham High Road	W N-S	Double Red	20.3			20	4
Streatham High Road	W N-S	Suspended Red Route	17.5			15	3
Streatham High Road	W N-S	Double Red	25.2			25	5
Streatham High Road	W N-S	Junction	18.9			15	3
Streatham High Road	W N-S	Double Red	3.5			0	0
Streatham High Road	W N-S	Crossing	2.8			0	0
Streatham High Road	W N-S	Double Red	4.2			0	0
Streatham High Road	W N-S	Junction	13.3			10	2
Streatham High Road	W N-S	Double Red	25.2			25	5
Streatham High Road	W N-S	Junction	7			5	1
Streatham High Road	W N-S	Double Red	16.8			15	3
Streatham High Road	W N-S	Red Route-No Stopping Mon-Sat 7am-7pm/Except 10am-4pm Loading Max 20 Mins	14.1			10	2
Voss Court	Inner S-N	Double Red	18.2			15	3
Voss Court	Inner S-N	Unrestricted	32.2			30	6
Voss Court	Inner S-N	Crossover	2.8			0	0
Voss Court	Inner S-N	Unrestricted	14.7			10	2
Voss Court	Inner S-N	Crossover	12.6			10	2

Voss Court	Inner S-N	Unrestricted	6.3			5	1
Voss Court	Inner S-N	Double Yellow	5.6			5	1
Voss Court	Inner S-N	Crossover	13.3			10	2
Voss Court	Inner S-N	Disabled Permit Holders	7	LW	1		1
Voss Court	Inner S-N	Unrestricted	25.7			25	5
Voss Court	Inner S-N	Double Yellow	7.7			5	1
Voss Court	Outer N-S	Double Yellow	2.1			0	0
Voss Court	Outer N-S	Unrestricted	18.2			15	3
Voss Court	Outer N-S	Crossover	7			5	1
Voss Court	Outer N-S	Unrestricted	18.9			15	3
Voss Court	Outer N-S	Crossover	13.3			10	2
Voss Court	Outer N-S	Unrestricted	22.4			20	4
Voss Court	Outer N-S	Crossover	2.8			0	0
Voss Court	Outer N-S	Disabled Permit Holders	6.3	LW	1		1
Voss Court	Outer N-S	Crossover	4.2			0	0
Voss Court	Outer N-S	Disabled Permit Holders	6.3	LW	1		1
Voss Court	Outer N-S	Crossover	3.5			0	0
Voss Court	Outer N-S	Unrestricted	5.6			5	1
Voss Court	Outer N-S	Crossover	3.5			0	0
Voss Court	Outer N-S	Unrestricted	7			5	1
Voss Court	Outer N-S	Crossover	3.5			0	0
Voss Court	Outer N-S	Unrestricted	7			5	1
Voss Court	Outer N-S	Crossover	4.7			0	0
Voss Court	Outer N-S	Unrestricted	5.6			5	1
Voss Court	Outer N-S	Crossover	5.7			5	1
Voss Court	Outer N-S	Double Red	18.9			15	3
Plum Tree Mews	ALL	Private Parking	N/A			N/A	N/A

APPENDIX D – TRICS BUILDERS MERCHANTS

Calculation Reference: AUDIT-860401-210412-0446

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : L - BUILDER'S MERCHANTS
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	EG EALING	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1000 to 5600 (units: sqm)
 Range Selected by User: 600 to 13051 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/01 to 31/03/21

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
Friday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	1

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

Selected Location Sub Categories:

Industrial Zone	1
Residential Zone	2
No Sub Category	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:

E(a)	4 days
------	--------

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:

75,001 to 100,000	1 days
125,001 to 250,000	1 days
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:

0.6 to 1.0	3 days
1.1 to 1.5	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	4 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	4 days
----	--------

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

PTAL Rating:

No PTAL Present	4 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	EG-01-L-02	BUILDERS MERCHANTS BOLLO BRIDGE ROAD ACTON	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: <i>Survey date: TUESDAY</i>	2120 sqm 11/03/03	EALING <i>Survey Type: MANUAL</i>
2	WM-01-L-02	SELCO CHARLOTTE ROAD BIRMINGHAM STIRCHLEY	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: <i>Survey date: WEDNESDAY</i>	5600 sqm 19/10/11	<i>Survey Type: MANUAL</i> WEST MIDLANDS
3	WO-01-L-01	JEWSON WORCESTER ROAD BROMSGROVE	Edge of Town No Sub Category Total Gross floor area: <i>Survey date: FRIDAY</i>	1000 sqm 25/04/03	<i>Survey Type: MANUAL</i> WORCESTERSHIRE
4	WY-01-L-01	BUILDERS MER. ST ANDREWS ROAD HUDDERSFIELD BRADLEY MILLS	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: <i>Survey date: MONDAY</i>	3000 sqm 17/03/03	<i>Survey Type: MANUAL</i> WEST YORKSHIRE

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
KC-01-L-01	Anomalous Data
SC-01-L-01	Anomalous Data
WM-01-L-01	Anomalous Data
WO-01-L-02	Anomalous Data

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
06:00 - 07:00	1	5600	0.375	1	5600	0.036	1	5600	0.411
07:00 - 08:00	4	2930	0.768	4	2930	0.367	4	2930	1.135
08:00 - 09:00	4	2930	1.203	4	2930	0.956	4	2930	2.159
09:00 - 10:00	4	2930	1.331	4	2930	1.374	4	2930	2.705
10:00 - 11:00	4	2930	1.408	4	2930	1.433	4	2930	2.841
11:00 - 12:00	4	2930	1.323	4	2930	1.246	4	2930	2.569
12:00 - 13:00	4	2930	1.229	4	2930	1.169	4	2930	2.398
13:00 - 14:00	4	2930	0.981	4	2930	1.160	4	2930	2.141
14:00 - 15:00	4	2930	0.981	4	2930	1.024	4	2930	2.005
15:00 - 16:00	4	2930	0.990	4	2930	0.913	4	2930	1.903
16:00 - 17:00	4	2930	0.691	4	2930	0.939	4	2930	1.630
17:00 - 18:00	4	2930	0.282	4	2930	0.640	4	2930	0.922
18:00 - 19:00	2	4300	0.302	2	4300	0.314	2	4300	0.616
19:00 - 20:00	1	5600	0.214	1	5600	0.357	1	5600	0.571
20:00 - 21:00	1	5600	0.000	1	5600	0.036	1	5600	0.036
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		12.078			11.964				24.042

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

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

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Parameter summary

Trip rate parameter range selected:	1000 - 5600 (units: sqm)
Survey date date range:	01/01/01 - 31/03/21
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	4

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

APPENDIX E – TRICS RESIDENTIAL

Calculation Reference: AUDIT-860401-210412-0441

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	
BT	BRENT	1 days
IS	ISLINGTON	3 days
SK	SOUTHWARK	1 days
WF	WALTHAM FOREST	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: 14 to 472 (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: 01/01/13 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	2 days
Thursday	2 days

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

Selected survey types:

Manual count	6 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	5
Suburban Area (PPS6 Out of Centre)	1

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

Selected Location Sub Categories:

Development Zone	2
Residential Zone	2
Built-Up Zone	2

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	6 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

Population within 1 mile:

25,001 to 50,000	1 days
50,001 to 100,000	2 days
100,001 or More	3 days

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

Population within 5 miles:

500,001 or More	6 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	4 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	2 days
No	4 days

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

PTAL Rating:

5 Very Good	3 days
6a Excellent	2 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	BT-03-C-02 ENGINEERS WAY WEMBLEY	BLOCKS OF FLATS	BRENT
	Suburban Area (PPS6 Out of Centre) Development Zone		
	Total No of Dwellings:	472	
	<i>Survey date: WEDNESDAY</i>	<i>30/11/16</i>	<i>Survey Type: MANUAL</i>
2	IS-03-C-05 LEVER STREET FINSBURY	BLOCK OF FLATS	ISLINGTON
	Edge of Town Centre Built-Up Zone		
	Total No of Dwellings:	15	
	<i>Survey date: WEDNESDAY</i>	<i>29/06/16</i>	<i>Survey Type: MANUAL</i>
3	IS-03-C-06 CALEDONIAN ROAD HOLLOWAY	BLOCK OF FLATS	ISLINGTON
	Edge of Town Centre Residential Zone		
	Total No of Dwellings:	14	
	<i>Survey date: MONDAY</i>	<i>27/06/16</i>	<i>Survey Type: MANUAL</i>
4	IS-03-C-07 CITY ROAD ISLINGTON	BLOCK OF FLATS	ISLINGTON
	Edge of Town Centre Development Zone		
	Total No of Dwellings:	185	
	<i>Survey date: THURSDAY</i>	<i>06/06/19</i>	<i>Survey Type: MANUAL</i>
5	SK-03-C-02 LAMB WALK BERMONDSEY	BLOCK OF FLATS	SOUTHWARK
	Edge of Town Centre Built-Up Zone		
	Total No of Dwellings:	29	
	<i>Survey date: THURSDAY</i>	<i>23/04/15</i>	<i>Survey Type: MANUAL</i>
6	WF-03-C-01 ERSKINE ROAD WALTHAMSTOW	BLOCKS OF FLATS	WALTHAM FOREST
	Edge of Town Centre Residential Zone		
	Total No of Dwellings:	73	
	<i>Survey date: TUESDAY</i>	<i>05/11/19</i>	<i>Survey Type: MANUAL</i>

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BE-03-C-01	Car parking ratio too high
BE-03-C-02	Car parking ratio too high
BT-03-C-01	Car parking ratio too high
EN-03-C-02	Car parking ratio too high
EN-03-C-03	Car parking ratio too high
HG-03-C-02	Car parking ratio too high
HK-03-C-03	Car parking ratio too high
HO-03-C-03	Car parking ratio too high
HO-03-C-05	Car parking ratio too high
HV-03-C-02	No servicing trips
IS-03-C-03	Car parking ratio too high
KI-03-C-03	Car parking ratio too high
RD-03-C-04	Car parking ratio too high
SK-03-C-01	Car parking ratio too high

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

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	6	131	0.006	6	131	0.013	6	131	0.019
08:00 - 09:00	6	131	0.020	6	131	0.028	6	131	0.048
09:00 - 10:00	6	131	0.024	6	131	0.023	6	131	0.047
10:00 - 11:00	6	131	0.027	6	131	0.027	6	131	0.054
11:00 - 12:00	6	131	0.019	6	131	0.022	6	131	0.041
12:00 - 13:00	6	131	0.022	6	131	0.024	6	131	0.046
13:00 - 14:00	6	131	0.028	6	131	0.027	6	131	0.055
14:00 - 15:00	6	131	0.018	6	131	0.018	6	131	0.036
15:00 - 16:00	6	131	0.014	6	131	0.018	6	131	0.032
16:00 - 17:00	6	131	0.032	6	131	0.034	6	131	0.066
17:00 - 18:00	6	131	0.036	6	131	0.020	6	131	0.056
18:00 - 19:00	6	131	0.041	6	131	0.037	6	131	0.078
19:00 - 20:00	6	131	0.028	6	131	0.027	6	131	0.055
20:00 - 21:00	6	131	0.018	6	131	0.024	6	131	0.042
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.333			0.342			0.675	

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

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

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Parameter summary

Trip rate parameter range selected:	14 - 472 (units:)
Survey date date range:	01/01/13 - 06/03/20
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
Surveys manually removed from selection:	14

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 OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	131	0.000	6	131	0.000	6	131	0.000
08:00 - 09:00	6	131	0.000	6	131	0.000	6	131	0.000
09:00 - 10:00	6	131	0.000	6	131	0.000	6	131	0.000
10:00 - 11:00	6	131	0.001	6	131	0.000	6	131	0.001
11:00 - 12:00	6	131	0.003	6	131	0.004	6	131	0.007
12:00 - 13:00	6	131	0.001	6	131	0.000	6	131	0.001
13:00 - 14:00	6	131	0.000	6	131	0.001	6	131	0.001
14:00 - 15:00	6	131	0.004	6	131	0.004	6	131	0.008
15:00 - 16:00	6	131	0.000	6	131	0.000	6	131	0.000
16:00 - 17:00	6	131	0.000	6	131	0.000	6	131	0.000
17:00 - 18:00	6	131	0.000	6	131	0.000	6	131	0.000
18:00 - 19:00	6	131	0.000	6	131	0.000	6	131	0.000
19:00 - 20:00	6	131	0.000	6	131	0.000	6	131	0.000
20:00 - 21:00	6	131	0.000	6	131	0.000	6	131	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 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	6	131	0.048	6	131	0.207	6	131	0.255
08:00 - 09:00	6	131	0.067	6	131	0.393	6	131	0.460
09:00 - 10:00	6	131	0.082	6	131	0.209	6	131	0.291
10:00 - 11:00	6	131	0.112	6	131	0.160	6	131	0.272
11:00 - 12:00	6	131	0.148	6	131	0.128	6	131	0.276
12:00 - 13:00	6	131	0.127	6	131	0.154	6	131	0.281
13:00 - 14:00	6	131	0.137	6	131	0.169	6	131	0.306
14:00 - 15:00	6	131	0.150	6	131	0.155	6	131	0.305
15:00 - 16:00	6	131	0.183	6	131	0.156	6	131	0.339
16:00 - 17:00	6	131	0.227	6	131	0.190	6	131	0.417
17:00 - 18:00	6	131	0.259	6	131	0.157	6	131	0.416
18:00 - 19:00	6	131	0.298	6	131	0.150	6	131	0.448
19:00 - 20:00	6	131	0.236	6	131	0.115	6	131	0.351
20:00 - 21:00	6	131	0.138	6	131	0.094	6	131	0.232
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.212			2.437			4.649	

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

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

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

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	131	0.000	6	131	0.000	6	131	0.000
08:00 - 09:00	6	131	0.003	6	131	0.001	6	131	0.004
09:00 - 10:00	6	131	0.008	6	131	0.004	6	131	0.012
10:00 - 11:00	6	131	0.006	6	131	0.005	6	131	0.011
11:00 - 12:00	6	131	0.008	6	131	0.005	6	131	0.013
12:00 - 13:00	6	131	0.005	6	131	0.008	6	131	0.013
13:00 - 14:00	6	131	0.004	6	131	0.009	6	131	0.013
14:00 - 15:00	6	131	0.004	6	131	0.003	6	131	0.007
15:00 - 16:00	6	131	0.001	6	131	0.005	6	131	0.006
16:00 - 17:00	6	131	0.006	6	131	0.006	6	131	0.012
17:00 - 18:00	6	131	0.001	6	131	0.001	6	131	0.002
18:00 - 19:00	6	131	0.003	6	131	0.003	6	131	0.006
19:00 - 20:00	6	131	0.004	6	131	0.005	6	131	0.009
20:00 - 21:00	6	131	0.000	6	131	0.000	6	131	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.053			0.055			0.108	

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 Servicing 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	6	131	0.000	6	131	0.000	6	131	0.000
08:00 - 09:00	6	131	0.006	6	131	0.003	6	131	0.009
09:00 - 10:00	6	131	0.009	6	131	0.005	6	131	0.014
10:00 - 11:00	6	131	0.008	6	131	0.006	6	131	0.014
11:00 - 12:00	6	131	0.010	6	131	0.010	6	131	0.020
12:00 - 13:00	6	131	0.010	6	131	0.010	6	131	0.020
13:00 - 14:00	6	131	0.009	6	131	0.013	6	131	0.022
14:00 - 15:00	6	131	0.009	6	131	0.008	6	131	0.017
15:00 - 16:00	6	131	0.004	6	131	0.009	6	131	0.013
16:00 - 17:00	6	131	0.013	6	131	0.013	6	131	0.026
17:00 - 18:00	6	131	0.009	6	131	0.009	6	131	0.018
18:00 - 19:00	6	131	0.011	6	131	0.011	6	131	0.022
19:00 - 20:00	6	131	0.010	6	131	0.010	6	131	0.020
20:00 - 21:00	6	131	0.004	6	131	0.005	6	131	0.009
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.112			0.112			0.224	

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-860401-210412-0442

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	HO	HOUNSLOW	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	1 days
	SY	SOUTH YORKSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 17 to 432 (units:)
 Range Selected by User: 6 to 1817 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: Selected: 0 to 1 Actual: 0.67 to 6.26

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: 01/01/13 to 08/10/20

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

Selected survey days:

Monday	4 days
Wednesday	1 days
Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	7 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	3
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	2

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

Selected Location Sub Categories:

Residential Zone	5
No Sub Category	2

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	7 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

Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	2 days
25,001 to 50,000	2 days
50,001 to 100,000	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
250,001 to 500,000	3 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	3 days

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

Travel Plan:

No	7 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	6 days
3 Moderate	1 days

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

LIST OF SITES relevant to selection parameters

1	HO-03-A-02	MIXED HOUSES HIBERNIAN ROAD HOUNSLOW	Edge of Town Centre Residential Zone Total No of Dwellings: <i>Survey date: MONDAY</i> 50 29/06/15	HOUNSLOW
2	NE-03-A-02	SEMI DETACHED & DETACHED HANOVER WALK SCUNTHORPE	Edge of Town No Sub Category Total No of Dwellings: <i>Survey date: MONDAY</i> 432 12/05/14	<i>Survey Type: MANUAL</i> NORTH EAST LINCOLNSHIRE
3	NY-03-A-08	TERRACED HOUSES NICHOLAS STREET YORK	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: <i>Survey date: MONDAY</i> 21 16/09/13	<i>Survey Type: MANUAL</i> NORTH YORKSHIRE
4	SH-03-A-05	SEMI -DETACHED/TERRACED SANDCROFT TELFORD SUTTON HILL Edge of Town Residential Zone Total No of Dwellings: <i>Survey date: THURSDAY</i> 54 24/10/13		<i>Survey Type: MANUAL</i> SHROPSHIRE
5	ST-03-A-06	SEMI -DET. & TERRACED STANFORD ROAD WOLVERHAMPTON BLAKENHALL Edge of Town Centre No Sub Category Total No of Dwellings: <i>Survey date: FRIDAY</i> 17 09/05/14		<i>Survey Type: MANUAL</i> STAFFORDSHIRE
6	SY-03-A-01	SEMI DETACHED HOUSES A19 BENTLEY ROAD DONCASTER BENTLEY RISE Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: <i>Survey date: WEDNESDAY</i> 54 18/09/13		<i>Survey Type: MANUAL</i> SOUTH YORKSHIRE
7	WM-03-A-05	TERRACED & DETACHED COUNDON ROAD COVENTRY Edge of Town Centre Residential Zone Total No of Dwellings: <i>Survey date: MONDAY</i> 89 21/11/16		<i>Survey Type: MANUAL</i> WEST MIDLANDS

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-03-A-05	Parking ratio too high
CB-03-A-05	Parking ratio too high
CH-03-A-09	Parking ratio too high
CH-03-A-10	Parking ratio too high
CH-03-A-11	Parking ratio too high
DC-03-A-08	Parking ratio too high
DH-03-A-01	Parking ratio too high
DH-03-A-03	Parking ratio too high
DS-03-A-02	Parking ratio too high
DV-03-A-01	Parking ratio too high
DV-03-A-02	Parking ratio too high
DV-03-A-03	Parking ratio too high

MANUALLY DESELECTED SITES (Cont.)

Site Ref	Reason for Deselection
ES-03-A-03	Mixed houses and flats
ES-03-A-04	Mixed houses and flats
ES-03-A-05	Mixed houses and flats
HC-03-A-21	Parking ratio too high
HC-03-A-22	Parking ratio too high
HC-03-A-23	Mixed houses and flats
HF-03-A-03	Parking ratio too high
KC-03-A-03	Mixed houses and flats
KC-03-A-04	Parking ratio too high
KC-03-A-06	Mixed houses and flats
KC-03-A-07	Parking ratio too high
LC-03-A-30	Parking ratio too high
LN-03-A-04	Parking ratio too high
MS-03-A-03	Parking ratio too high
NE-03-A-03	Parking ratio too high
NF-03-A-03	Parking ratio too high
NF-03-A-04	Parking ratio too high
NF-03-A-05	Parking ratio too high
NF-03-A-06	Parking ratio too high
NY-03-A-09	Parking ratio too high
NY-03-A-10	Mixed houses and flats
NY-03-A-12	Parking ratio too high
NY-03-A-13	Parking ratio too high
SC-03-A-04	Parking ratio too high
SC-03-A-05	Parking ratio too high
SF-03-A-05	Parking ratio too high
SF-03-A-07	Parking ratio too high
SH-03-A-06	Parking ratio too high
SM-03-A-01	Parking ratio too high
ST-03-A-07	Parking ratio too high
TW-03-A-02	Parking ratio too high
WK-03-A-02	Parking ratio too high
WK-03-A-04	Parking ratio too high
WL-03-A-02	Parking ratio too high
WS-03-A-08	Parking ratio too high
WS-03-A-09	Mixed houses and flats
WS-03-A-10	Parking ratio too high
WS-03-A-11	Parking ratio too high

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	102	0.047	7	102	0.201	7	102	0.248
08:00 - 09:00	7	102	0.082	7	102	0.336	7	102	0.418
09:00 - 10:00	7	102	0.116	7	102	0.113	7	102	0.229
10:00 - 11:00	7	102	0.102	7	102	0.123	7	102	0.225
11:00 - 12:00	7	102	0.117	7	102	0.116	7	102	0.233
12:00 - 13:00	7	102	0.144	7	102	0.132	7	102	0.276
13:00 - 14:00	7	102	0.114	7	102	0.139	7	102	0.253
14:00 - 15:00	7	102	0.137	7	102	0.166	7	102	0.303
15:00 - 16:00	7	102	0.237	7	102	0.174	7	102	0.411
16:00 - 17:00	7	102	0.252	7	102	0.148	7	102	0.400
17:00 - 18:00	7	102	0.254	7	102	0.145	7	102	0.399
18:00 - 19:00	7	102	0.268	7	102	0.172	7	102	0.440
19:00 - 20:00	1	50	0.280	1	50	0.200	1	50	0.480
20:00 - 21:00	1	50	0.320	1	50	0.240	1	50	0.560
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.470			2.405			4.875	

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:	17 - 432 (units:)
Survey date date range:	01/01/13 - 08/10/20
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	7
Surveys manually removed from selection:	50

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/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	102	0.000	7	102	0.000	7	102	0.000
08:00 - 09:00	7	102	0.004	7	102	0.004	7	102	0.008
09:00 - 10:00	7	102	0.001	7	102	0.001	7	102	0.002
10:00 - 11:00	7	102	0.001	7	102	0.003	7	102	0.004
11:00 - 12:00	7	102	0.004	7	102	0.000	7	102	0.004
12:00 - 13:00	7	102	0.001	7	102	0.003	7	102	0.004
13:00 - 14:00	7	102	0.003	7	102	0.001	7	102	0.004
14:00 - 15:00	7	102	0.003	7	102	0.003	7	102	0.006
15:00 - 16:00	7	102	0.001	7	102	0.006	7	102	0.007
16:00 - 17:00	7	102	0.003	7	102	0.000	7	102	0.003
17:00 - 18:00	7	102	0.001	7	102	0.001	7	102	0.002
18:00 - 19:00	7	102	0.000	7	102	0.000	7	102	0.000
19:00 - 20:00	1	50	0.000	1	50	0.000	1	50	0.000
20:00 - 21:00	1	50	0.000	1	50	0.000	1	50	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.022			0.022			0.044	

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/A - HOUSES 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	7	102	0.070	7	102	0.321	7	102	0.391
08:00 - 09:00	7	102	0.123	7	102	0.598	7	102	0.721
09:00 - 10:00	7	102	0.173	7	102	0.218	7	102	0.391
10:00 - 11:00	7	102	0.163	7	102	0.194	7	102	0.357
11:00 - 12:00	7	102	0.195	7	102	0.195	7	102	0.390
12:00 - 13:00	7	102	0.227	7	102	0.220	7	102	0.447
13:00 - 14:00	7	102	0.201	7	102	0.257	7	102	0.458
14:00 - 15:00	7	102	0.238	7	102	0.278	7	102	0.516
15:00 - 16:00	7	102	0.481	7	102	0.276	7	102	0.757
16:00 - 17:00	7	102	0.506	7	102	0.240	7	102	0.746
17:00 - 18:00	7	102	0.434	7	102	0.244	7	102	0.678
18:00 - 19:00	7	102	0.395	7	102	0.291	7	102	0.686
19:00 - 20:00	1	50	0.900	1	50	0.600	1	50	1.500
20:00 - 21:00	1	50	0.680	1	50	0.440	1	50	1.120
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		4.786			4.372				9.158

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/A - HOUSES PRIVATELY OWNED
MULTI-MODAL LGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	102	0.004	7	102	0.022	7	102	0.026
08:00 - 09:00	7	102	0.014	7	102	0.013	7	102	0.027
09:00 - 10:00	7	102	0.014	7	102	0.014	7	102	0.028
10:00 - 11:00	7	102	0.014	7	102	0.015	7	102	0.029
11:00 - 12:00	7	102	0.010	7	102	0.013	7	102	0.023
12:00 - 13:00	7	102	0.007	7	102	0.007	7	102	0.014
13:00 - 14:00	7	102	0.008	7	102	0.013	7	102	0.021
14:00 - 15:00	7	102	0.006	7	102	0.006	7	102	0.012
15:00 - 16:00	7	102	0.018	7	102	0.011	7	102	0.029
16:00 - 17:00	7	102	0.011	7	102	0.013	7	102	0.024
17:00 - 18:00	7	102	0.026	7	102	0.011	7	102	0.037
18:00 - 19:00	7	102	0.024	7	102	0.015	7	102	0.039
19:00 - 20:00	1	50	0.040	1	50	0.020	1	50	0.060
20:00 - 21:00	1	50	0.000	1	50	0.020	1	50	0.020
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.196			0.193			0.389	

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 F – TRICS LIGHT INDUSTRIAL

Calculation Reference: AUDIT-860401-210413-0402

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HF HERTFORDSHIRE	1 days	
04	EAST ANGLIA		
	NF NORFOLK	1 days	
06	WEST MIDLANDS		
	WM WEST MIDLANDS	1 days	
10	WALES		
	CF CARDIFF	1 days	
17	ULSTER (NORTHERN IRELAND)		
	AR ARMAGH	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: 690 to 14125 (units: sqm)
 Range Selected by User: 620 to 80000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 31/03/21

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	4 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	2

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

Selected Location Sub Categories:

Industrial Zone	5
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This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:
 Not Known 5 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Secondary Filtering selection (Cont.):**Population within 500m Range:**

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days
25,001 to 50,000	3 days

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

25,001 to 50,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	1 days

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

0.6 to 1.0	3 days
1.1 to 1.5	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.***Travel Plan:**

No	5 days
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*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	5 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	AR-02-C-02	EMTEK SILVERWOOD ROAD LURGAN SILVERWOOD INDUSTRIAL AREA Edge of Town Industrial Zone Total Gross floor area:	2980 sqm <i>Survey date: THURSDAY</i>	ARMAGH
2	CF-02-C-02	BAKERY MAES-Y-COED ROAD CARDIFF	12/11/09 <i>Survey Type: MANUAL</i>	CARDIFF
3	HF-02-C-01	INDUSTRIAL UNIT BRIDGE ROAD EAST WELWYN GARDEN CITY	14125 sqm <i>Survey date: THURSDAY</i>	<i>Survey Type: MANUAL</i> HERTFORDSHIRE
4	NF-02-C-04	EXHIBITION DESIGN & MANUF. FLETCHER WAY NORWICH UPPER HELLESDON	1800 sqm <i>Survey date: THURSDAY</i>	<i>Survey Type: MANUAL</i> NORFOLK
5	WM-02-C-03	INDUSTRIAL GLASS DOWNING STREET SMETHWICK	690 sqm <i>Survey date: THURSDAY</i>	<i>Survey Type: MANUAL</i> WEST MIDLANDS
		Edge of Town Industrial Zone Total Gross floor area:	5070 sqm <i>Survey date: TUESDAY</i>	<i>Survey Type: MANUAL</i>

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BR-02-C-01	Not light industrial use
BT-02-C-02	Not light industrial use
CB-02-C-01	Not light industrial use
CS-02-C-01	Not light industrial use
DC-02-C-07	Not light industrial use
DV-02-C-02	Not light industrial use
HE-02-C-02	Not light industrial use
MG-02-C-01	Not light industrial use
WA-02-C-01	Not light industrial use
WM-02-C-03	Not light industrial use

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 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	5	4933	0.126	5	4933	0.012	5	4933	0.138
08:00 - 09:00	5	4933	0.235	5	4933	0.089	5	4933	0.324
09:00 - 10:00	5	4933	0.239	5	4933	0.093	5	4933	0.332
10:00 - 11:00	5	4933	0.170	5	4933	0.134	5	4933	0.304
11:00 - 12:00	5	4933	0.097	5	4933	0.146	5	4933	0.243
12:00 - 13:00	5	4933	0.093	5	4933	0.122	5	4933	0.215
13:00 - 14:00	5	4933	0.109	5	4933	0.101	5	4933	0.210
14:00 - 15:00	5	4933	0.093	5	4933	0.093	5	4933	0.186
15:00 - 16:00	5	4933	0.077	5	4933	0.118	5	4933	0.195
16:00 - 17:00	5	4933	0.069	5	4933	0.199	5	4933	0.268
17:00 - 18:00	5	4933	0.174	5	4933	0.203	5	4933	0.377
18:00 - 19:00	5	4933	0.049	5	4933	0.097	5	4933	0.146
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		1.531			1.407			2.938	

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

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

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Parameter summary

Trip rate parameter range selected:	690 - 14125 (units: sqm)
Survey date date range:	01/01/08 - 31/03/21
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	10

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 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	5	4933	0.004	5	4933	0.000	5	4933	0.004
08:00 - 09:00	5	4933	0.049	5	4933	0.041	5	4933	0.090
09:00 - 10:00	5	4933	0.073	5	4933	0.016	5	4933	0.089
10:00 - 11:00	5	4933	0.085	5	4933	0.024	5	4933	0.109
11:00 - 12:00	5	4933	0.045	5	4933	0.036	5	4933	0.081
12:00 - 13:00	5	4933	0.028	5	4933	0.016	5	4933	0.044
13:00 - 14:00	5	4933	0.016	5	4933	0.012	5	4933	0.028
14:00 - 15:00	5	4933	0.024	5	4933	0.016	5	4933	0.040
15:00 - 16:00	5	4933	0.008	5	4933	0.012	5	4933	0.020
16:00 - 17:00	5	4933	0.024	5	4933	0.016	5	4933	0.040
17:00 - 18:00	5	4933	0.008	5	4933	0.000	5	4933	0.008
18:00 - 19:00	5	4933	0.000	5	4933	0.000	5	4933	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.364			0.189			0.553	

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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

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	5	4933	0.174	5	4933	0.045	5	4933	0.219
08:00 - 09:00	5	4933	0.341	5	4933	0.101	5	4933	0.442
09:00 - 10:00	5	4933	0.284	5	4933	0.101	5	4933	0.385
10:00 - 11:00	5	4933	0.207	5	4933	0.158	5	4933	0.365
11:00 - 12:00	5	4933	0.134	5	4933	0.174	5	4933	0.308
12:00 - 13:00	5	4933	0.109	5	4933	0.150	5	4933	0.259
13:00 - 14:00	5	4933	0.195	5	4933	0.178	5	4933	0.373
14:00 - 15:00	5	4933	0.118	5	4933	0.166	5	4933	0.284
15:00 - 16:00	5	4933	0.114	5	4933	0.191	5	4933	0.305
16:00 - 17:00	5	4933	0.114	5	4933	0.259	5	4933	0.373
17:00 - 18:00	5	4933	0.280	5	4933	0.288	5	4933	0.568
18:00 - 19:00	5	4933	0.097	5	4933	0.158	5	4933	0.255
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.167				1.969			4.136

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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