

TRANSPORT ASSESSMENT

# Wrenbridge (FRELD Hayes) LLP

Swallowfield Way, Hayes

May 2023

---

Transport Assessment

---

## 1 Introduction

- 1.1 Vectos has been appointed by Wrenbridge (FRELD Hayes) LLP to provide transport planning advice regarding the proposed redevelopment of 84 Swallowfield Way, Hayes, which is an existing crane depot site.
- 1.2 The site is located within the administrative boundary of the London Borough of Hillingdon (LBH) and Transport for London (TfL) are a statutory consultee.
- 1.3 The site is in an existing industrial area circa 1.6km west of Hayes & Harlington rail station within LBH. Swallowfield Way provides access onto Rigby Lane, which borders the site to the north, with industrial uses bordering the site to the east and west. The site is bordered to the south by a rail line.
- 1.4 The proposals comprise the redevelopment of the site to provide four units with a flexible E(g)(iii)/B2/B8 land use and a combined floor area of 7,780 sqm. Vehicular access to the site will be achieved via the existing access from Rigby Lane, which is shared by an adjacent storage facility to the west.
- 1.5 Pre-application discussions have been held with TfL and LBH and the results of these discussions are reflected in the report. The formal pre-application feedback is included within **Appendix A**.
- 1.6 This Transport Assessment (TA) considers the potential transport effects of the proposed development in support of the planning application.
- 1.7 Following this introduction, the report is structured as follows:
  - **Section 2** - provides a description of the existing situation and transport networks;
  - **Section 3** - considers the proposals in the context of national, regional and local policy;
  - **Section 4** - describes the development proposals;
  - **Section 5** – describes the Active Travel Zone setting out how people of all abilities will make key journeys;
  - **Section 6** - presents an assessment of the likely trip generation of the scheme;
  - **Section 7** - provides a summary and conclusion to the report.

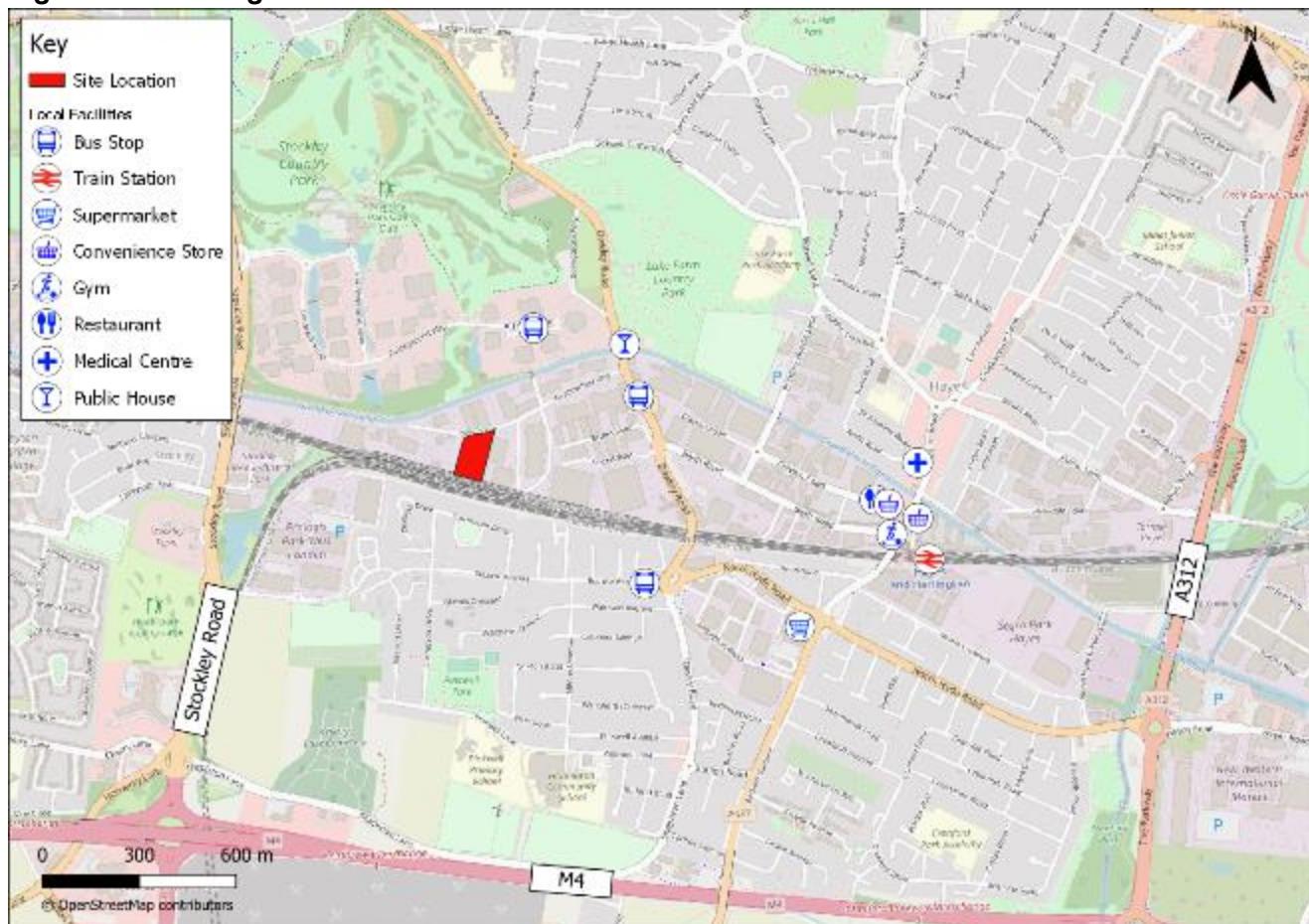
## 2 Existing Conditions

2.1 This section of the report will examine the existing accessibility of the site, specifically focusing on accessibility via sustainable means. The site will be critically examined as to how people of all abilities will access the site and its nearby facilities, such as public transport and the local amenities in close proximity.

### Existing Site and Surrounding Area

2.2 The strategic site location plan is shown in **Figure 2.1**, whilst the location of the site is shown in **Figure 2.2**.

**Figure 2.1: Strategic Site Location Plan**



**Figure 2.2: Site Location Plan**



- 2.3 The site is in an existing industrial area circa 1.6km west of Hayes & Harlington rail station within LBH. Rigby Lane borders the site to the north, with industrial uses bordering the site to the east and west. The site is bordered to the south by a rail line.
- 2.4 Vehicular and pedestrian access is provided by an existing access point on Rigby Lane. This access is shared with the adjacent portacabin rental site to the west. There are no footways linking the existing site with Rigby Lane, and pedestrians must currently enter the carriageway in order to access the site.
- 2.5 As mentioned previously, the site is within a 2km walking distance of Hayes & Harlington rail station. Furthermore, there is an area of commercial uses within 2km walking distance located along Station Road to the north of the station. There are also several bus stops within proximity of the site, as shown in **Figure 2.1** and outlined further below.

### Accessibility by Non-Car Modes

#### Walking and Cycling

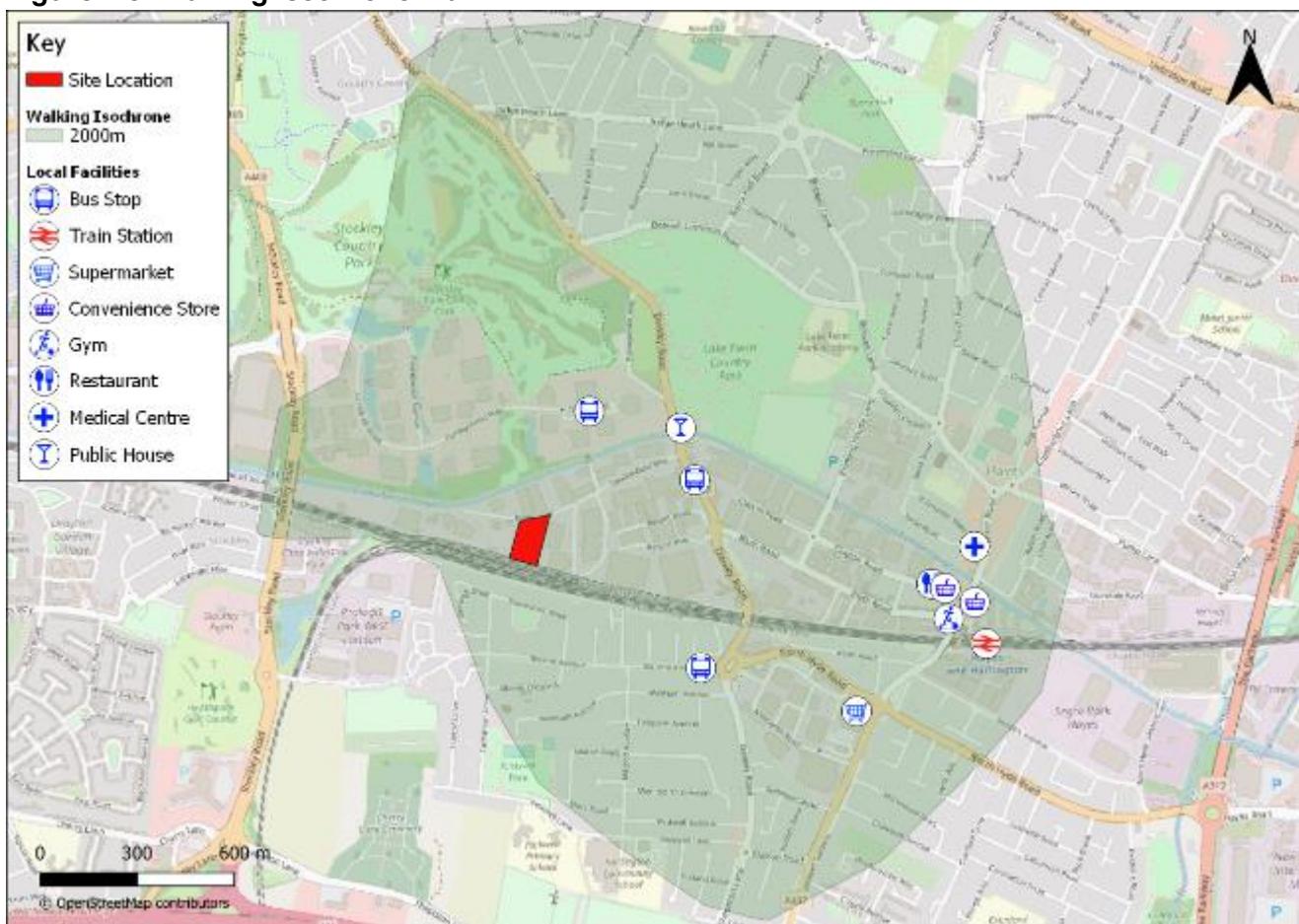
- 2.6 The site benefits from being in proximity to a network of footways and crossing points. Rigby Lane, which fronts the site, provides footways either side of the carriageway.

2.7 Rigby Lane connects to the surrounding network of footways including Dawley Road to the east, which provides a connection to Hayes & Harlington rail station via Blyth Road. Dropped kerbs are present at crossing points along the route towards the station. These routes also benefit from street lighting.

2.8 It is commonly accepted that a distance of 2 km is the distance over which walking might replace car trips. A number of local services are accessible within 2km with some services accessible within a significantly shorter distance, most notably bus stops, rail stations, Hayes high street (Station Road), and wider residential settlements.

2.9 A plan illustrating the 2km walking isochrones from the site is provided at **Figure 2.3** below.

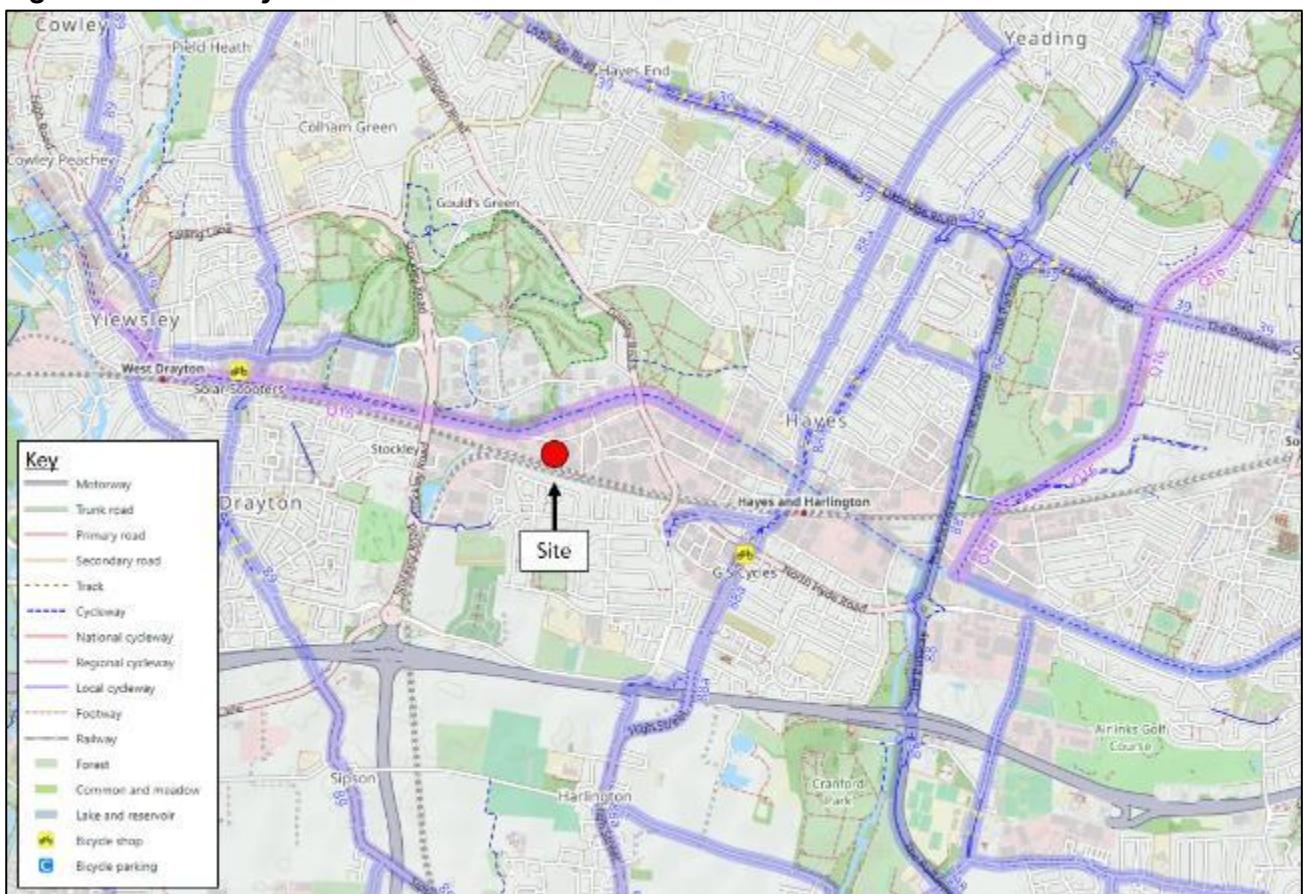
**Figure 2.3: Walking Isochrone Plan**



2.10 With regard to cycling, a shared pedestrian/cycleway is located along the eastern side of Dawley Road. This provides access onto the Grand Union Canal, which is located to the north. The canal benefits from a towpath along the northern side which can be used by pedestrians and cyclists. The towpath provides an alternative traffic free route from the site to Hayes & Harlington rail station. This towpath is identified as part of the TFL Cycleway network, with the designation C.

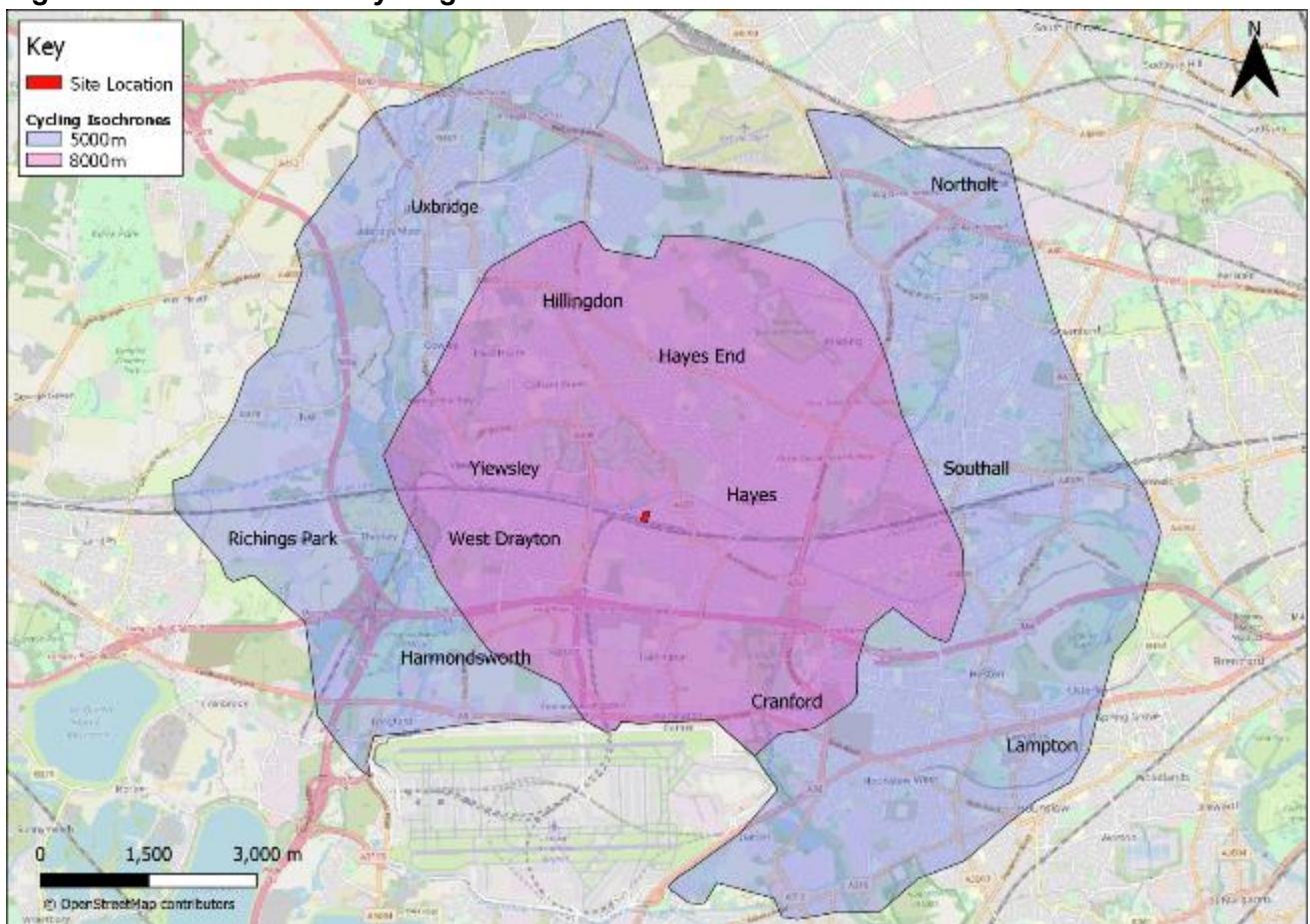
2.11 The local cycle network is shown in **Figure 2.4** below.

**Figure 2.4: Local Cycle Network**



2.12 In addition, central government research explains that for journeys less than 5km cycling has the potential to replace car trips. However greater distances are regularly undertaken and the DfT's 'Cycle Infrastructure Design' (October 2008) states that "for commuter journeys, a trip distance of over five miles (8.0km) is not uncommon". For completeness, 5km and 8km isochrones are included at **Figure 2.5**.

**Figure 2.5: 5km and 8km Cycling Isochrone Plan**



2.13 It is clear from this figure that a number of residential and town centre sites are accessible within a 5km and 8km cycle including Hayes, Yiewsley, West Drayton, Cranford, Southall, Lampton, Hillingdon, Uxbridge, Southall, Northolt, Richings Park, and Harmondsworth.

### Public Transport Accessibility Level

2.14 The Public Transport Accessibility Level (PTAL) is a theoretical measure of the accessibility of a given point to the surrounding public transport network, considering walking access time and service availability. The method used is essentially a way of measuring the density of the public transport network at a particular point.

2.15 The PTAL measure, reflects:

- The walking distance from the point of interest to the public transport access points;
- The reliability of the service modes available;
- The number of services available within the catchment; and
- The level of service at the public transport access points – i.e., average waiting time.

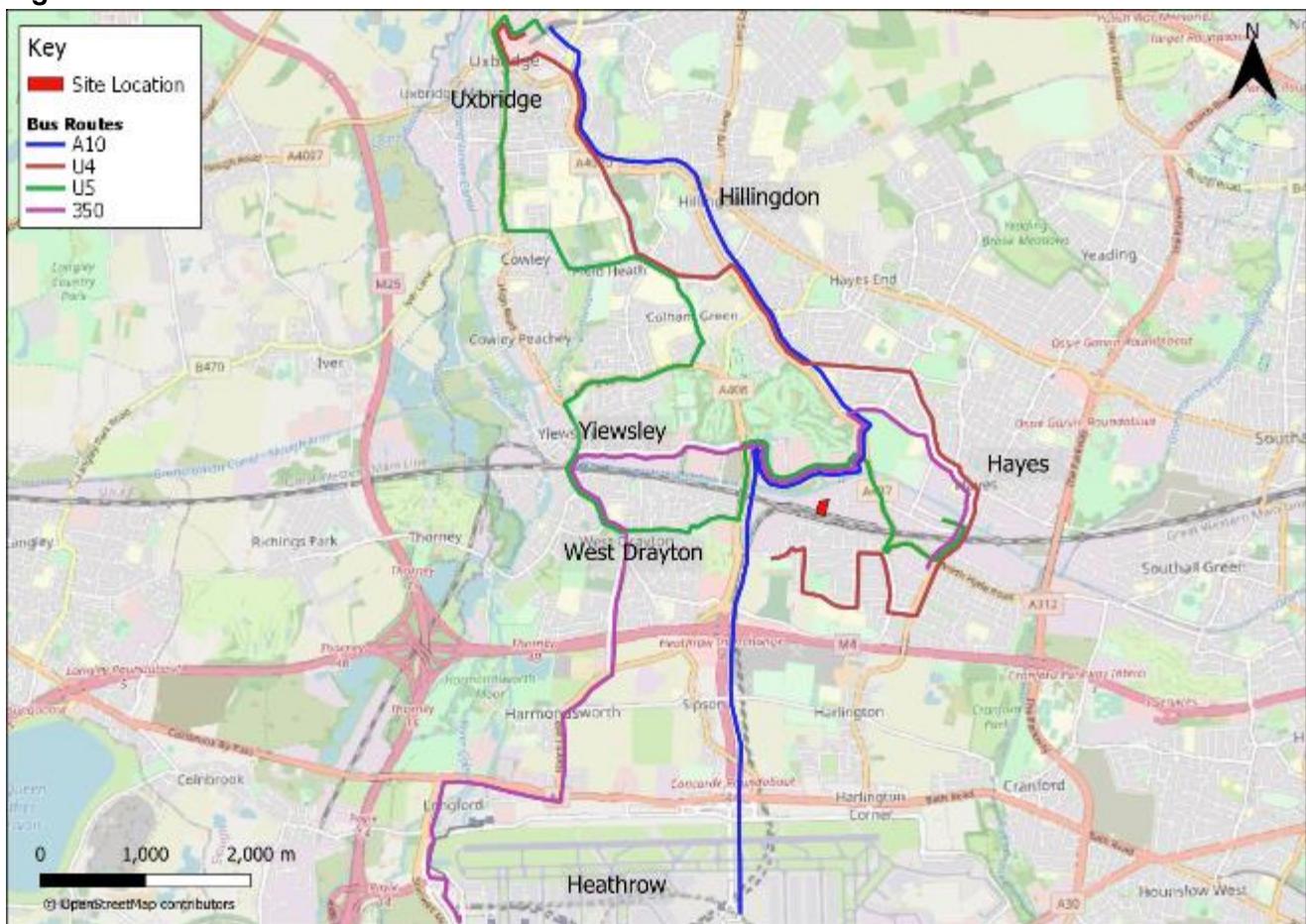
- 2.16 The PTAL is categorised into eight levels, 1a to 6b where 6b represents an excellent level of accessibility and 1a a low level of accessibility. The map uses squares to show accessibility levels. The site has a PTAL of 1a, which is classified as 'poor'. However, the PTAL measure is a binary measure of accessibility, and once a distance or frequency is not met, no score is recorded. In reality, the accessibility and use of public transport is not as stark as this, and people will still consider a site accessible even if the walking distances, frequency of service and wait times as set out in the PTAL measure are not met.
- 2.17 The WebCAT output illustrating the PTAL is provided in **Appendix B**. Further details on the actual provision of public transport provided in the area is set out below.

## Public Transport

### Bus Services

- 2.18 The closest bus stop is on Dawley Road, circa 0.6km (8-minute walking time) to the east of the site. This bus stop is served by the U5 service. The U5 bus service links the site east to Hayes & Harlington rail station. To the west, this bus service links the site with residential areas such as West Drayton, as well as services including Hillingdon Hospital.
- 2.19 Further bus services are available to the south and the north of the site. To the south of the site, there are bus stops located on Bourne Avenue, circa 1.3km (16-minute walking time). This stop is served by the U4 bus service. This bus service links the site east to Hayes & Harlington rail station, and north to residential areas such as Hayes, Goulds Green, and Uxbridge.
- 2.20 To the north of the site, there are bus stops located on The Square, in the industrial park. This stop is circa 1.1km (13-minute walking time) and is served by the A10 and the 350 bus services. The A10 links the site north towards Uxbridge while the 350 links the site west towards West Drayton and south towards Heathrow.
- 2.21 A plan showing the routes of these buses is presented in **Figure 2.6** below. This shows the bus routes linking the site with the residential areas of Hayes, West Drayton,

**Figure 2.6: Bus Routes Plan**



2.22 A summary of the bus services calling at the nearby stops is provided in **Table 2.1** below.

**Table 2.1: Summary of bus services available within walking distance of the site**

Bus Service	Bus Route	Frequency (per hour)		
		Mon – Fri	Sat	Sun
A10	Uxbridge Station – Heathrow Central Bus Station	3	2-3	2
U4	Prologis Park – Belmont Road	3-6	3-6	2-4
U5	York Road – Blyth Road	3-5	2-5	2-3
350	Millington Road – Heathrow Terminal 5	3	3	3

### Rail Services

2.23 Hayes & Harlington rail station is a 1.6km (20-minute) walk to the east of the site. The station is served by the Elizabeth Line and the Great Western Railway. This station provides access to direct connections to Heathrow (Terminals 4 and 5), Reading, Abbey Wood, Maidenhead, Didcot Parkway, and Paddington.

2.24 **Table 2.2** below summarises the services from this station.

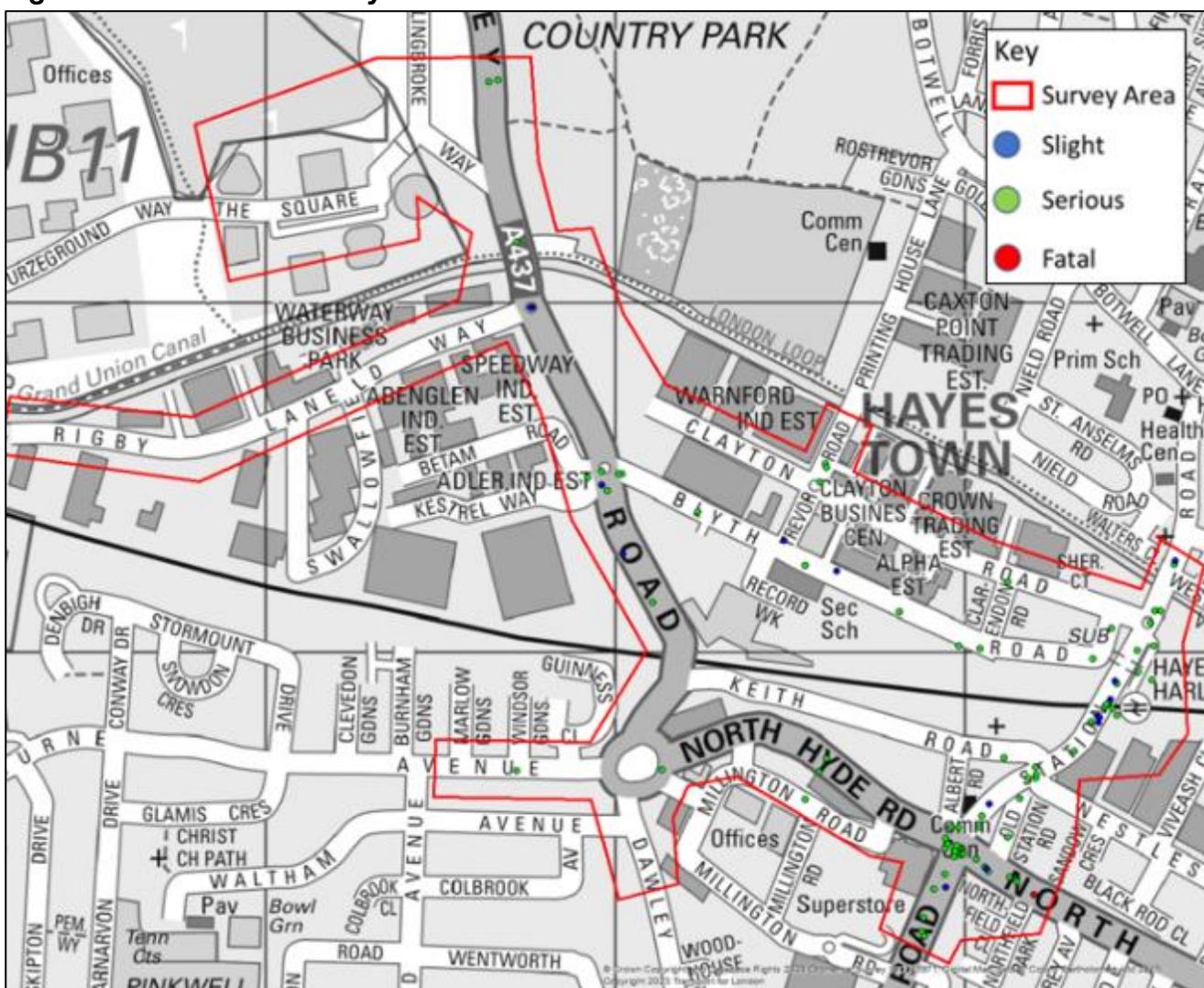
**Table 2.2: Summary of rail services from Hayes & Harlington Rail Station**

Rail Service	Destination	Frequency (services per hour)		
		Mon-Fri	Sat	Sun
Elizabeth Line	Heathrow (Terminal 4)	2	2	2
	Heathrow (Terminal 5)	2	3	2
	Reading	3-8	4	3-4
	Abbey Wood	8	7-8	4-9
Great Western Railway	Didcot Parkway	1-2	1-2	1
	Paddington	2	2	2

### Collision Data

- 2.25 Personal Injury Collision (PIC) data has been obtained for the road network in proximity of the Development Site. This includes Rigby Lane, Swallowfield Way, Dawley Road, and all routes considered within the Active Travel Zone (ATZ), discussed in **Section 5**.
- 2.26 Data was obtained for a 5-year period, from December 2017 until October 2022, the latest data available on record.
- 2.27 The location and severity of collisions within this study area during the identified period are shown at **Figure 2.6** below.

**Figure 2.6: Collision Survey Area**



2.28 There have been 94 collisions recorded between December 2017 and October 2022. One of these collisions was classified as fatal, and 15 collisions were classified as serious. The remaining 78 were classified as slight severity.

2.29 A summary of these collisions is listed in **Table 2.3** below.

**Table 2.3: Collision Data Summary**

Year	Slight	Serious	Fatal
2017	1	1	0
2018	22	4	0
2019	13	2	1
2020	10	1	0
2021	15	6	0
2022	17	1	0

- 2.30 The single fatal incident occurred in October 2019 on North Hyde Road, circa 1.7km walk from the site. This collision occurred when a pedestrian stepped into the path of a motorcycle. The motorcyclist did not have time to stop or avoid the pedestrian. The causes for the collision are noted as 'failed to look properly' on the part of the pedestrian, while it is noted that the motorcyclist was exceeding the speed limit.
- 2.31 It is noted that this fatal collision occurred 1.7km from the site and outside of the ATZ routes, as discussed in **Section 5**.
- 2.32 There were no collisions recorded along Rigby Lane/Swallowfield Way. However, there were two serious collisions marked on the Dawley Road/Swallowfield Way roundabout.
- 2.33 The first recorded serious collision occurred on the 18<sup>th</sup> October 2021, involving a car and a bicycle. The report notes that it is 'not known how collision occurred.' The car was travelling north to south along Dawley Road while the cyclist was travelling west to southwest from Swallowfield Way onto Dawley Road. It is noted that the car driver failed to look properly and that the road conditions were wet. It is also noted that the cyclist was wearing dark clothing at night-time.
- 2.34 The second recorded serious collision occurred on the 17<sup>th</sup> April 2021, involving three cars. As with the previous serious collision at this junction, the report notes that it is 'not known how collision occurred.' Two cars were travelling from north, with one continuing south and the other turning west onto Swallowfield Way. The third vehicle was travelling from the south to the north along Dawley Road. It is noted that the first vehicle's driver was impaired by alcohol, and this is given as the cause for this collision. No pedestrians or cyclists were involved in this collision.
- 2.35 There was a further serious collision circa 800m from the site, at the Dawley Road/Blythe Road roundabout. This collision occurred on the 21<sup>st</sup> June 2018 and involved one pedestrian and one car. This is noted as a 'self-reported' incident. The pedestrian states that they were crossing the Kestrel Way arm of the roundabout. The pedestrian was crossing from the pedestrian refuge island while a lorry was stationary on this arm. As they passed the lorry, a car overtook the lorry, colliding with the pedestrian. There are no causes noted in the report.
- 2.36 Overall, a review of the incidents recorded in proximity of the site within the last 5-year period were as a result of driver/pedestrian/cyclist error. As such, it is concluded that there are not any safety issues in relation to the junctions in proximity to the proposed development.

### Local Highway Network

- 2.37 The local highway network can be seen in **Figure 2.1** above. This section details the character of these roads.

2.38 Vehicular access to the site is taken from Rigby Lane which borders the site to the north. Rigby Lane is a no-through road two-way single carriageway providing access to several industrial units to the west of the site. To the east, Rigby Lane changes identification to Swallowfield Way before joining with Dawley Road at a roundabout, approximately 550m to the east. **Photograph 2.1** below shows the character of Rigby Lane.

**Photograph 2.1: Rigby Lane**



2.39 Dawley Road is a two-way single carriageway running in a north-south direction. This road has a posted speed limit of 30mph. There are footways present along both sides of the carriageway, with dropped kerbs and tactile paving at the crossing points. To the south, Dawley Road links with the A437 which further links east to the A312. To the north, Dawley Road links to the wider residential area of Hillingdon and Uxbridge.

2.40 M4 Junction 3 is located to the south of the site and is accessed via the A437 or Dawley Road. The M4 is part of the Strategic Road Network and provides connections to Central London in the east, with Slough and Reading being accessible in the west.

## **Summary**

- 2.41 The surrounding highway network benefits from footways providing access from the site to the nearest bus stops located along Dawley Road and Bourne Avenue circa 0.6-1.6km to the east and south of the site. Cycle lanes are also provided along the Grand Union Canal enabling access to Hayes & Harlington rail station, nearby amenities, and links to the wider cycle network and residential areas.
- 2.42 Frequent services serve the bus stops along Dawley Road and Bourne Avenue providing access to destinations including Hayes, West Drayton, Goulds Green, Hillingdon, and Uxbridge. In addition, bus routes U4, U5, and 350 provide direct access from the site to Hayes & Harlington railway station.
- 2.43 Opportunities are therefore available for future employees and visitors to walk, cycle and use public transport as the main mode of travel to and from the Development Site.

## 3 Policy

3.1 This section provides an overview of relevant policy at a national, regional and local level in relation to the proposed development.

### National Policy

#### National Planning Policy Framework (July 2021)

3.2 The National Planning Policy Framework (NPPF) was updated by the Ministry of Housing, Communities and Local Government in July 2021. The NPPF sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced.

3.3 Chapter 9 covers the promotion of 'Sustainable Transport' and states in paragraph 104 that transport issues should be considered in the earliest stages of plan-making and proposals, so that:

- "a) the potential impacts of development on transport networks can be addressed;*
- b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
- d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places."*

3.4 Paragraph 110 states that in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- "a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) safe and suitable access to the site can be achieved for all users;*
- c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guidance and the National Model Design Code; and*

*d) 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.”*

3.5 Within the above context it is stated that all applications for developments should:

*“a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

*b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

*c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character.*

*d) allow for efficient delivery of goods, and access by service and emergency vehicles; and*

*e) be designed to enable charging of plug-in and other low emission vehicles in safe, accessible and convenient locations.”*

3.6 As such:

*“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”.*

## **Regional Policy**

### **The London Plan (March 2021)**

3.7 The London Plan is the spatial development strategy for Greater London. It sets out a framework for how London will develop over the next 20-25 years and the Mayor’s vision for good growth.

3.8 From a transportation perspective, the Mayor intends that London will be a city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system, which actively encourages more walking and cycling. In achieving this aim, a series of policies have been developed that seek to ensure new developments:

- Deliver patterns of land use that facilitate residents making shorter, regular trips by walking or cycling (Policy T2);
- Do not have an adverse effect upon the transport network and that the impacts are assessed within a Transport Assessment (Policy T4);

- Provide secure, integrated and accessible cycle parking facilities which are designed and laid out in accordance with London Cycling Design Standards (Policy T5);
- Restrict car parking in line with levels of existing and future public transport accessibility and connectivity adhering to the maximum parking standards set out in the policy (Policy T6).

3.9 There are no specific car parking standards for B2 or B8 use classes; however, the LP states that these uses should have regard to the office parking standards. These have therefore been replicated in **Table 3.1** below. Please note, the car parking spaces are stated as maximums while the cycle parking spaces are stated as minimums.

**Table 3.1: London Plan Car and Cycle Parking Standards**

Land Use	Car Parking	Cycle	
		Long-stay	Short-stay*
<b>B2: General Industry</b>	1 space per 100 sqm	1 space per 500 sqm	1 space per 1000 sqm
<b>B8: Storage and Distribution</b>	1 space per 100 sqm	1 space per 500 sqm	1 space per 1000 sqm

\*minimum of 2 spaces

3.10 As explored in **Section 2**, the site is within close proximity to bus and rail connections, to support longer journeys being undertaken by sustainable modes, as demonstrated in **Section 5**. This should be considered when determining the appropriate level of car parking.

3.11 All proposed buildings will be constructed to increase efficiency and resilience in order to support the move towards a low carbon circular economy as detailed within the London Plan Policy GG6 'Increasing efficiency and resilience'.

3.12 To encourage and support the Mayor's target for 80% of all trips in London to be made by foot, cycle or public transport by 2041, 16 long-stay cycle parking spaces and 8 short stay spaces will be provided on site, which accords with the minimum cycle parking standards set out within the London Plan standards.

3.13 Policy T7 states "*Development proposals should facilitate safe, clean, and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible.*" The planning application will be supported by the provision of a Delivery and Servicing Management Plan (DSMP).

## Local Policy

### Hillingdon Local Plan: Part 1 (November, 2012)

3.14 The Hillingdon Local Plan: Part 1 (HLP1) was adopted in November 2012 and sets out the council's spatial vision and strategy, strategic objectives, and core policies.

3.15 These policies are supported by more detailed policies and allocations set out in Part 2 of the Local Plan, as detailed below.

## Hillingdon Local Plan: Part 2 (January, 2020)

3.16 The Hillingdon Local Plan: Part 2 (HLP2) was adopted in January 2020 and compromises development management policies, site allocations and designations, and the policies map.

3.17 While the HLP1 set out the strategic visions for the borough, HLP2 provides more detailed policies and development requirements. The HLP2 states that: “It’s purpose is to provide detailed policies that will form the basis of the Council’s decisions on individual planning applications.”

3.18 Section 8 of HLP2 outlines the development management policies in relation to “Transport and Aviation.” Policy DMT 1 refers to the need for development proposals to manage transport impacts by requiring developments to:

- *‘be accessible by public transport, walking and cycling either from the catchment area that it is likely to draw its employees, customers or visitors from and/or the services and facilities necessary to support the development;*
- *maximise safe, convenient and inclusive accessibility to, and from within developments for pedestrians, cyclists and public transport users;*
- *provide equal access for all people, including inclusive access for disabled people;*
- *adequately address delivery, servicing and drop-off requirements; and*
- *have no significant adverse transport or associated air quality and noise impacts on the local and wider environment, particularly on the strategic road network. ’*

3.19 Policy DMT 1 also refers to the requirement of development proposals to provide a Transport Assessment and Travel Plan, should they exceed the appropriate thresholds. This refers to any building with a floor space of 1,000sqm or more.

3.20 Policy DMT 2 refers to highway impacts and states that development proposals must ensure that:

- *‘safe and efficient vehicular access to the highway network is provided to the Council’s standards;*
- *they do not contribute to the deterioration of air quality, noise or local amenity or safety of all road users and residents;*
- *safe, secure and convenient access and facilities for cyclists and pedestrian are satisfactorily accommodated in the design of highway and traffic management schemes;*
- *impacts on local amenity and congestion are minimised by routing through traffic by the most direct means to the strategic road network, avoiding local distributor and access roads; and*
- *there are suitable mitigation measures to address any traffic impacts in terms of capacity and functions of existing and committed roads, including along roads or through junctions which are at capacity.’*

3.21 Policy DMT 5 refers to pedestrians and cyclists and the need to provide safe, direct, and inclusive access between the site and the wider network. This includes:

- *'the retention and, where appropriate, enhancement of any existing pedestrian and cycle routes;'*
- *'the provision of a high quality and safe public realm or interface with the public realm, which facilitates convenient and direct access to the site for pedestrian and cyclists;'*
- *'the provision of well signposted, attractive pedestrian and cycle routes separated from vehicular traffic where possible; and'*
- *'the provision of cycle parking and changing facilities in accordance with Appendix C, Table 1 or, in agreement with Council.'*

3.22 The cycle parking standards are set out in **Table 3.2** below along with the vehicle parking standards.

3.23 Policy DMT 6 refers to vehicle parking. HLP2 outlines that development proposals must comply with the vehicle parking standards. However, there is an understanding that any variance to these requirements may be permitted should:

- *'the variance not lead to a deleterious impact on street parking provision, congestion, or local amenity; and/or'*
- *'a transport appraisal and travel plan has been approved and parking provision is in accordance with its recommendations.'*

3.24 Policy DMT 6 also states that all car parks provided for new developments will be required to provide conveniently located reserved spaces for wheelchair users and those with restricted mobility.

3.25 As outline above, HLP2 sets out the cycle and car parking standards within LBH. Unlike the LP, the HLP2 car parking and cycle parking standards are maximum. These standards have been summarised in **Table 3.2** below.

**Table 3.2: Hillingdon Local Plan Cycle and Car Parking Standards**

Land Use	Car Parking	Cycle Parking
<b>B1: Offices</b>	1 space per 50 - 100 sqm	1 space per 250 sqm
<b>All Other B Class Uses</b>	2 spaces plus 1 space per 50 - 100sqm	1 space per 500 sqm

## Summary

3.26 The site is in a location which is accessible by public transport and active travel modes. This has been discussed in **Section 2** of this report.

3.27 In line Policy T7 of The London Plan, the development proposals will ensure deliveries and servicing can take place on-site in a safe and efficient manner. The proposals are outlined in **Section 4**.

3.28 Further details will be provided in following sections of the report as to how the proposed development accords to relevant policy including ensuring no adverse transport impact as a result of the proposed development.

## 4 Development Proposals

- 4.1 This section of the report sets out the development proposals for the site including access, parking and servicing.
- 4.2 The proposals comprise the redevelopment of the site to provide four units with a flexible E(g)(iii)/B2/B8 land use and a combined floor area of 7,780 sqm. Vehicular access to the site will be achieved via the existing access from Rigby Lane, which is shared by an adjacent storage facility to the west. A new pedestrian-only access is proposed from Rigby Lane. The proposed site layout plan is attached at **Appendix C**.

### Access Arrangements

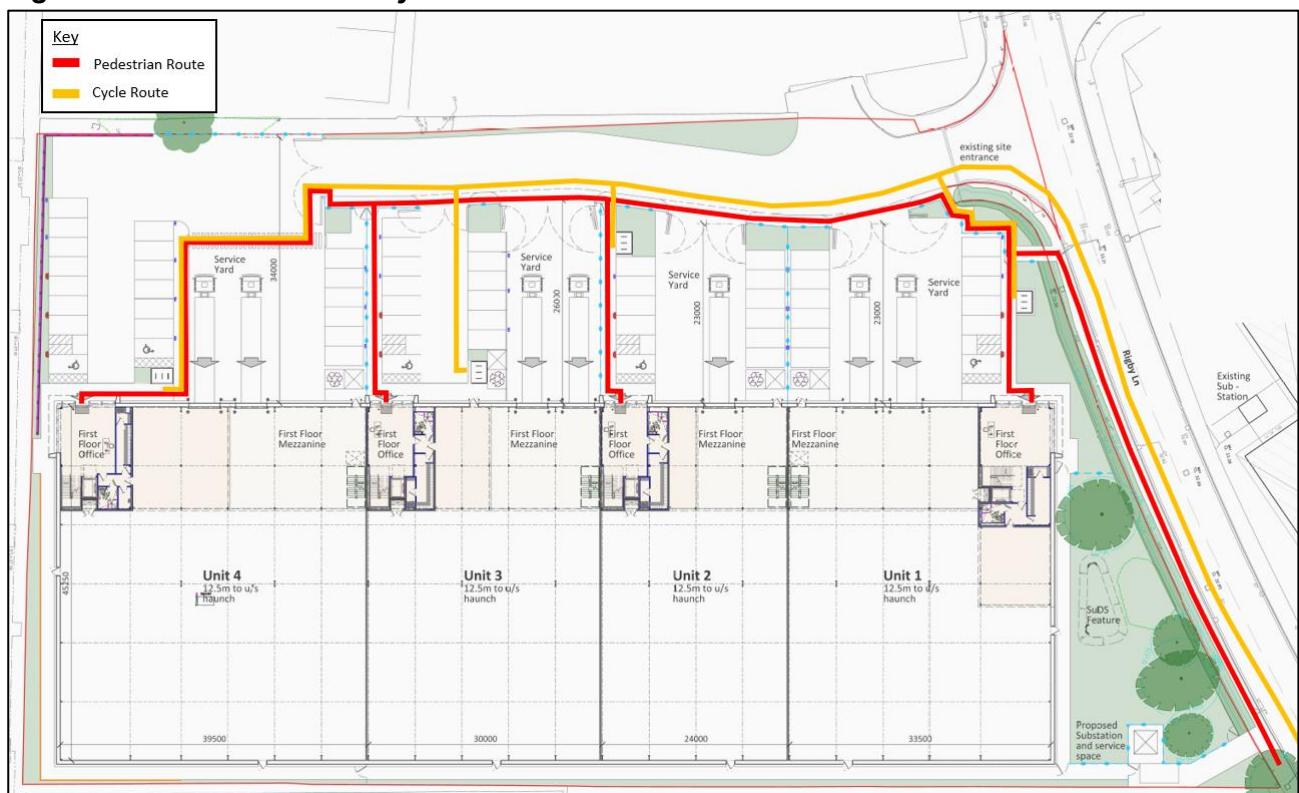
#### Vehicular

- 4.3 Vehicular access to the site will be achieved via the existing access from Rigby Lane. Visibility splays analysis has been undertaken for the four proposed units and the site access from Rigby Lane. This analysis shows that each unit has the appropriate level of visibility, with the appropriate level of visibility also present at the site access. This analysis has been included in **Appendix D**.

#### Pedestrian

- 4.4 Pedestrian access will be taken by a proposed pedestrian-only access to the east of the current access arrangement. This access will provide a more direct pedestrian connection to the proposed development from Rigby Lane. Cycle access will be taken via the existing access arrangement. **Figure 4.1** below shows the pedestrian and cycle routes within the site.

**Figure 4.1: Pedestrian and Cycle Routes within the Site**



4.5 The parking and service area has been designed with pedestrian connections to each unit. For Unit 1, pedestrians will turn east after accessing the wider site. For Units 2, 3, and 4, pedestrians will turn west towards the existing access point. Pedestrians will then cross at the front of the unit entrances where there are pedestrian refuge islands provided. After crossing, there are direct footways to the building entrances of Units 2 and 3. For Unit 4, there is a zebra crossing across the front of the service yard, allowing pedestrians to cross to a provided footway connecting to the building entrance.

## Parking

### Cycle

4.6 Regarding cycle parking, the development will accord with both the LP parking standards and Hillingdon's parking standards as set out within HLP2. Both of these standards can be seen above in **Table 3.1** and **Table 3.2**.

4.7 As the proposals seek to comprise circa 7,780 sqm of flexible E(g)(iii)/B2/B8 use class, the minimum cycle parking requirements for each unit based on the LP standards is provided in **Table 4.1** below. HLP2 sets out maximum parking standards, these are discussed further below.

**Table 4.1: Minimum Cycle Parking Provision**

Unit (Floor area)	B2		B8	
	Long-stay	Short-stay	Long-stay	Short-stay
1 (2,168sqm)	4	2	4	2
2 (1,436sqm)	3	1	3	1
3 (1,795sqm)	4	2	4	2
4 (2,381sqm)	5	2	5	2
<b>TOTAL: 7,780sqm</b>	<b>16</b>	<b>8</b>	<b>16</b>	<b>8</b>

- 4.8 Based on the information set out in **Table 4.1**, if the proposals were to solely comprise a B2 or B8 use class, a minimum of 16 long-stay and 8 short-stay spaces must be provided.
- 4.9 A total of 24 sheltered cycle parking spaces are proposed, with each unit to be provided with dedicated space for 6 cycle parking spaces. These spaces will be secure, accessible by staff only, and sheltered from the weather.
- 4.10 Furthermore, there are provisions made for potential cargo bike parking spaces. These spaces are provided in the form of a flexible car parking space. Each unit will have one car parking space that when not in use can be used by up to two cargo bikes.
- 4.11 Showers, changing rooms and lockers will also be provided for staff.

#### Car

- 4.12 The LP car parking standards state a maximum of 1 space per 100 sqm can be provided. As there are four units provided, **Table 4.2** below shows both the maximum allowed car parking and the proposed car parking per unit.

**Table 4.2: Maximum Car Parking Standards**

Unit (Floor area)	Maximum	Proposed
1 (2,168sqm)	22	13
2 (1,436sqm)	14	12
3 (1,795sqm)	18	14
4 (2,381sqm)	24	22
<b>TOTAL: 7,780sqm</b>	<b>78</b>	<b>61</b>

- 4.13 As can be seen in **Table 4.2**, the development falls within the maximum allowed car parking based on the LP car parking standards. There will be five Blue Badge spaces provided, Units 1, 2, and 3 will have one each. Unit 4 will provide two Blue Badge spaces. This equals 8% of the total provided parking.

- 4.14 In addition, 20% of the 61 parking spaces will be provided with active electric vehicle charging facilities with the remaining 80% provided with passive facilities.
- 4.15 Four Blue Badge spaces will be provided with active electric vehicle charging facilities (one in each plot).

## Servicing

- 4.16 All servicing and deliveries will be undertaken on-site within the loading bays / parking forecourts associated with each of the units.
- 4.17 **Figure 4.2** below shows a summary of the parking spaces in relation to the service yards.

**Figure 4.2: Car Parking Service Yards Summary**



- 4.18 As shown in **Figure 4.2**, Unit 3 and Unit 4 have the majority of their parking in areas separated from the service yard (highlighted in yellow).
- 4.19 Unit 1, 2, and 4 have elements of parking within the service yard. However, there is adequate space to enter and exit car parking spaces irrespective of HGVs being parked (highlighted in orange). It should be noted that the site provides a low-speed environment and traffic marshals will be on site to direct HGV traffic during manoeuvres. Deliveries are also expected to occur outside of shift changeovers. As such there is expected to be minimal conflict between deliveries and staff or their cars.

- 4.20 Unit 1 and Unit 2 both have elements of parking in a location where, if an HGV is parked, access and egress of these spaces would not be possible (highlighted in blue). However, as stated above, deliveries are expected to occur outside of shift changeovers. Adequate space is also provided for HGVs to manoeuvre within the service yards should any vehicles require exiting. Deliveries are not anticipated to be frequent and are unlikely to clash with staff arriving or departing.
- 4.21 Pre-application advice from TfL, as attached within **Appendix A**, expressed concern regarding HGV parking/waiting areas. As can be seen in **Appendix C**, Units 3 and 4 both have dedicated parking bays separate from the service yard. Unit 4 has some parking units which are located to the north of the service yard, with a pedestrian crossing provided in front of the service yard.
- 4.22 Unit 2 has parking bays which are located to the south of the service yard, with a footway provided to access the Unit entrance. However, there is a row of parking bays located adjacent to the service yard.
- 4.23 Unit 1 has parking spaces provided to the north of the service yard. Like Unit 2, there is a footway provided for employees accessing Unit 1.
- 4.24 Lastly, both Unit 1 and Unit 2 have parking spaces which are located adjacent to their respective service yards. However, there will be marshals on site directing traffic for the HGVs when deliveries are completed. The deliveries are expected to occur outside of shift change and there is sufficient space provided for HGVs to manoeuvre within the service yard should any vehicles need to exit.
- 4.25 Swept path analysis has been undertaken to demonstrate HGVs, refuse vehicle and delivery vans accessing the loading bays for each unit. In addition, swept path analysis has been undertaken to demonstrate private vehicles manoeuvring around the site and accessing the car parking spaces. These drawings are included within **Appendix D**.
- 4.26 A Delivery and Servicing Management Plan (DSMP) has also been prepared to support this application and will be submitted as a standalone document.

### **Workplace Travel Plan**

- 4.27 A Workplace Travel Plan (WTP) will be submitted to support the planning application as a standalone document.
- 4.28 The WTP will encourage travel to and from the site by sustainable modes. The primary objective of the WTP will be to set out a long-term strategy to facilitate and encourage modes of travel to the site other than by private car.
- 4.29 The WTP will include a number of initiatives and measures, which will be implemented. These will be a mixture of hard and soft measures. Hard measures will include the provision of facilities such as safe and secure cycle parking, whilst soft measures include initiatives such as providing information on public transport services.

## **Construction Logistics Plan**

- 4.30 A Construction Logistics Plan (CLP) will be submitted to support the planning application as a standalone document.
- 4.31 The CLP will manage all types of construction vehicle activity to and from the site during the construction period. The CLP will improve the safety and reliability of construction related vehicle movement in relation to the site, minimise any potential impacts on local traffic conditions and mitigate any potential for adverse environmental impacts.

## **Car Parking Management Plan**

- 4.32 A Car Park Management Plan (CPMP) will be submitted to support the planning application as a standalone document.
- 4.33 The CPMP will provide an overview of the type and quantum of parking that will be provided as well as details on how the car parking areas will be managed to ensure there is no adverse effect upon the adjoining road network.

## **Summary**

- 4.34 The proposals seek to construct four warehouse units with associated offices totalling circa 7,780 sqm of floorspace with a flexible E(g)(iii)/B2/B8 use class.
- 4.35 All vehicles accessing the site will do so via the existing access from Rigby Lane to the north.
- 4.36 In accordance with the London Plan standards, a total of 24 cycle parking spaces will be provided. These spaces will be secured and sheltered, with each unit having space for 6 spaces each.
- 4.37 A total of 20% of the parking spaces will benefit from active vehicle charging facilities with the remaining 80% provided with passive facilities. In addition, all Blue Badge spaces will have active vehicle charging facilities.
- 4.38 A WTP, DSMP, CLP and CPMP will also be submitted to support this planning application. These plans will encourage employees and visitors to travel to and from the site via sustainable modes of transport, set out how deliveries to the site will be managed, manage construction vehicle activity to and from the site during the construction period, manage how the site is operated, and how car parking is managed on-site.

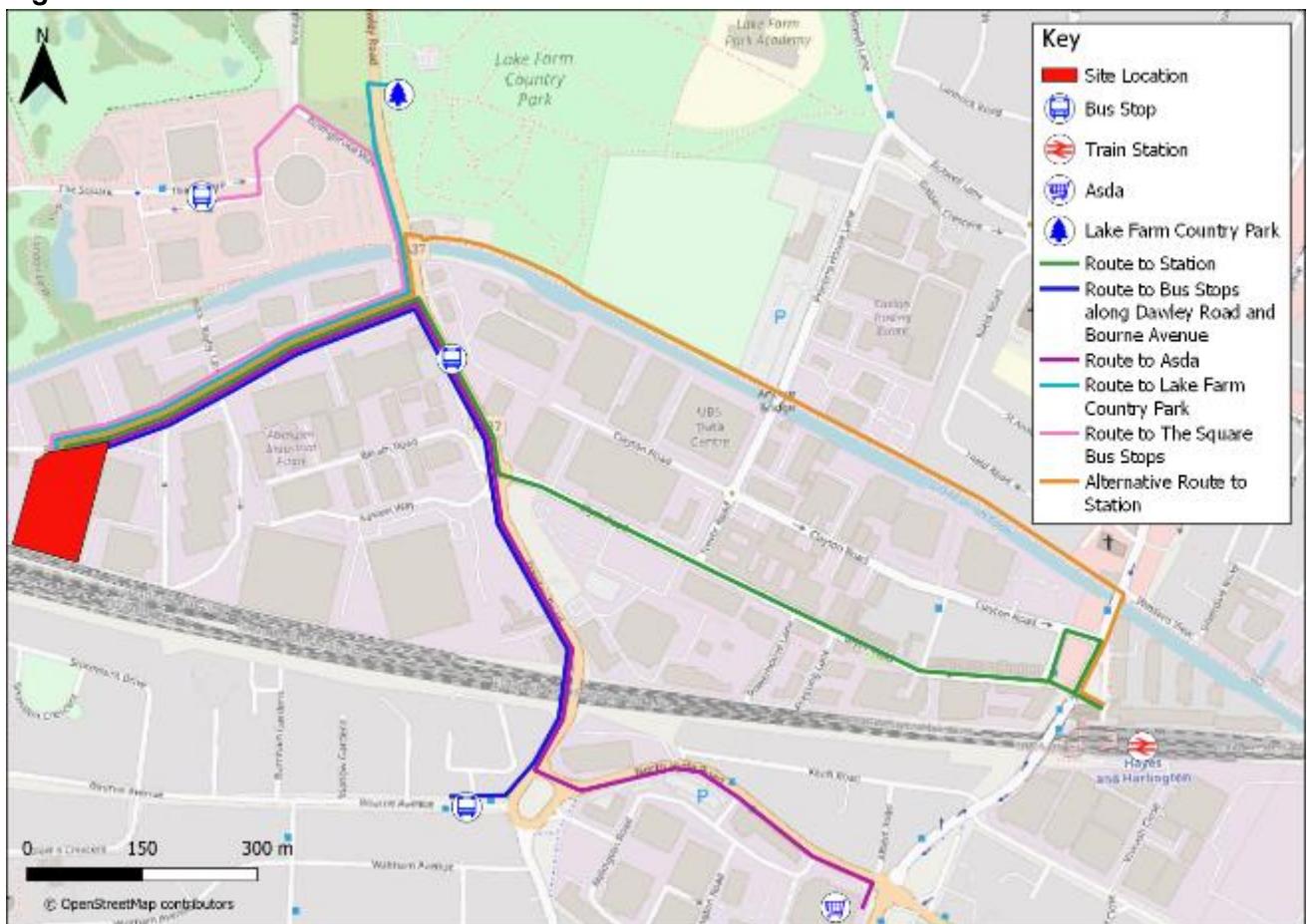
## 5 Active Travel Zone

- 5.1 This section of the Transport Assessment will describe the Active Travel Zone (ATZ) in detail and how the ATZ has been established. It will also detail how people of all abilities will make key journeys within the established ATZ that are essential to supporting car free lifestyles.
- 5.2 Under the TfL guidance for Transport Assessments, it is required that an ATZ is carried out to understand the context of the development. The aim of the assessment is to understand the local characteristics and identify any potential improvements required to encourage active travel.
- 5.3 An ATZ was carried out on the 5<sup>th</sup> April 2023, with six routes identified and analysed. Given the proposals could include 24-hour operation, a night-time ATZ assessment was also undertaken. This night-time assessment was carried out on the 5<sup>th</sup> April 2023.

### Key Destinations, Journeys and Routes

- 5.4 The five key routes that have been identified have been agreed with LBH and TfL during the pre-application stage and are as follows. These are also illustrated on **Figure 5.1** below:
  - Route 1: Hayes & Harlington Rail Station
  - Route 2: Bus Stops along Dawley Road and Bourne Avenue
  - Route 3: Asda
  - Route 4: Lake Farm Country Park
  - Route 5: Bus Stops on The Square
  - Route 6: Alternative Route to Hayes & Harlington Rail Station

**Figure 5.1: Local ATZ**



### Route 1: Hayes & Harlington Rail Station

5.5 In order to access Hayes & Harlington rail station, pedestrians and cyclists will need to travel east along Rigby Lane/Swallowfield Way. The existing site access lacks a connection to the existing footway. Pedestrians would need to enter the carriageway before accessing the footway, which also lacks a dropped kerb. Due to this, it could be suggested that the route does not meet the Healthy Streets indicators 'People feel safe' and 'People feel relaxed.' The site access can be seen in **Photograph 5.1**.

**Photograph 5.1: Site Access**



- 5.6 Continuing along Rigby Lane/Swallowfield Way, cyclists must cycle on-road as there is no cycleway provided. For pedestrians, there are dropped kerbs at the crossing points along Rigby Lane and Swallowfield Way. Circa 550m from the site, pedestrians and cyclists will reach the Swallowfield Way/Dawley Road roundabout. Here, cyclists can turn south along Dawley Road, while pedestrians will cross at the junction before continuing south. There are dropped kerbs with tactile paving and a pedestrian refuge island provided here.
- 5.7 After crossing, pedestrians will continue south along Dawley Road for circa 250m. There are no crossover points along this route. Cyclists will continue south in the carriageway. The Swallowfield Way southbound bus stop is located on the eastern side of the carriageway, with pedestrians and cyclists able to access the stop via this route.
- 5.8 After travelling south on Dawley Road, pedestrians and cyclists will turn east along Blyth Road, continuing southeast for circa 750m. This is a residential street with street lighting and dropped kerbs. There are ongoing construction works for apartments in this area. There is sufficient lighting and residential over-looking to make this street feel safe both in the day and night-time.
- 5.9 There are dropped kerbs at the crossing points along this road, along with vehicle crossover points. While some of these crossover points have dropped kerbs, **Photograph 5.2** below shows a vehicle crossover point which lacks a dropped kerb.

**Photograph 5.2: Poor Surface Materials on Blyth Road**



- 5.10 After circa 750m, Blyth Road turns north, linking with Clayton Road. However, there is a pedestrian plaza which provides a sub-surface crossing to Hayes & Harlington rail station, below Station Road. This is in the form of an underpass, with lighting provided. There is also a stairway provided, though this stairway was under repair on the day of the site visit. This underpass provides more direct access to the station for pedestrians, in particular those with physical limitations.
- 5.11 This underpass can be seen in **Photograph 5.3** below. The staircase which is under construction can be seen in **Photograph 5.4**.

**Photograph 5.3: Station Road Underpass (Night-Time)**



**Photograph 5.4: Station Road Staircase**



5.12 As an alternative route, pedestrians and cyclists can continue north along Blyth Road, turning west along Clayton Road towards the Station Road/Clayton Road roundabout. Here there are zebra crossings provided, allowing pedestrians to cross. Cyclists will stay in the carriageway, turning south towards Hayes & Harlington rail station. Pedestrians will continue south along Station Road/Station Approach, accessing the rail station via the lift provided or the steps. Should pedestrians wish to avoid steps, there is another access located on Station Road with a ramp. This access point can be seen in **Photograph 5.5**.

**Photograph 5.5: Hayes & Harlington Rail Station**



- 5.13 As mentioned, it could be considered that this route does not meet the Healthy Streets indicators 'People feel safe' and 'People feel relaxed' due to the lack of a footway connection to the site and the underpass connection to the station. However, as discussed in **Section 4**, a footway connection will be provided between the site and Rigby Lane. Regarding the underpass, as there is an adequate connection provided on-street to the station.
- 5.14 Improvements on this route could include the provision of a footway connection between the site and the existing footway. This will be provided in the form of a pedestrian-only access point proposed to the east of the existing access.
- 5.15 A further improvement on this route could also include a dropped kerb at the vehicle crossover point shown in **Photograph 5.2**. This crossover point is located circa 455m from Dawley Road.

### **Route 2: Bus Stops along Dawley Road and Bourne Avenue**

- 5.16 To reach the bus stops along both Dawley Road and Bourne Avenue, pedestrians and cyclists will depart the site on Rigby Lane, heading west towards Dawley Road. Pedestrians will continue on the footway while cyclists will ride in the carriageway. Turning south on Dawley Road, pedestrians and cyclists will access the northbound bus stop on Dawley Road, circa 90m from the Swallowfield Way/Dawley Road roundabout.

- 5.17 For the southbound bus stop, pedestrians will cross at the roundabout junction on Swallowfield Way/Dawley Road. There are dropped kerbs, tactile paving, and pedestrian refuge island provided at this crossing point. The southbound bus stop is circa 90m from the Swallowfield Way/Dawley Road roundabout.
- 5.18 There are dropped kerbs provided at the crossing points along Dawley Road. Circa 250m from the Swallowfield Way/Dawley Road roundabout, pedestrians and cyclists will arrive at the Dawley Road/Blyth Road roundabout. This is a five-arm roundabout with dropped kerbs and tactile paving provided at the crossing points. There are also pedestrian refuge islands provided here, with some protective barriers also provided. This crossing can be seen in **Photograph 5.6**.

**Photograph 5.6: Dawley Road/Blyth Road Roundabout Crossing**



- 5.19 After crossing this roundabout, pedestrians will continue south along Dawley Road for another circa 450m. This section of Dawley Road has overhead street lighting provided with residential units overlooking the road from the eastern side.
- 5.20 Pedestrians and cyclists will then turn west onto Bourne Avenue, walking circa 60m to access the westbound Guiness Close bus stop. There are dropped kerbs at the crossing points along Bourne Avenue, with overhead street lighting provided. To access the eastbound Guiness Close bus stop, pedestrians will cross south across Bourne Avenue, with dropped kerbs, tactile paving, and a pedestrian refuge island located here.

- 5.21 It could be said that this route does not meet the Healthy Streets Indicators 'Easy to cross.' While there are dropped kerbs provided, some crossing points on this route lack tactile paving which assist those with visual impairments when crossing.
- 5.22 Regarding the night-time assessment, this route has sufficient overhead lighting and has some overlooking from residential units, particularly in the southern extent. There is good visibility along this route which contributes to a greater sense of safety.
- 5.23 Improvements to this route could include the provision of tactile paving at the necessary crossing points. This includes the crossing point circa 125m south of Swallowfield Way/Dawley Road roundabout and the vehicle crossover point circa 160m south of Dawley Road/Blyth Road roundabout.

### Route 3: Asda

- 5.24 To reach the Asda Hayes Superstore along the A437, pedestrians and cyclists will use the same route as **Route 2**. However, pedestrians will cross east at the northern edge of Dawley Road/Bourne Avenue roundabout, rather than continuing towards Bourne Avenue. This crossing has dropped kerbs with tactile paving, and a pedestrian refuge island. This crossing can be seen in **Photograph 5.7** below.

**Photograph 5.7: Dawley Road Crossing**



- 5.25 Pedestrians and cyclists will then turn east along the A437, with cyclists continuing on-road. Pedestrians and cyclists will both continue for 500m along the A437. For pedestrians, there are dropped kerbs with tactile paving at the crossing points. Overhead street lighting is provided. There are residential units located along the northern side of the A437, with a hotel located along the southern side.
- 5.26 To access the Asda store, pedestrians will cross south at the A437/Station Road/N Hyde Road crossroads junction. This crossing can be seen in **Photograph 5.8** below.

**Photograph 5.8: A437/Station Road/N Hyde Road Crossroads Junction**



- 5.27 It could be suggested that this route does not meet the Healthy Streets indicators 'not too noisy.' However, as this route is along an A-level road it is expected that not all criteria will be met.
- 5.28 As can be seen in **Photograph 5.8** there are pedestrian guard rails and signalised crossings provided at the intersection to access the ASDA Superstore. These provisions provide a greater sense of safety for employees accessing the ASDA Superstore.

#### **Route 4: Lake Farm Country Park**

- 5.29 Pedestrians and cyclists wishing to access the nearby amenity Lake Farm Country Park can follow the same route as previous routes. However, rather than turning south along Dawley Road, they must

turn north. As mentioned previously, there are dropped kerbs, tactile paving, and pedestrian refuge islands located at the Dawley Road/Swallowfield Way roundabout. Cyclists must continue north on-road while pedestrians will cross to the eastern side of the carriageway.

5.30 Pedestrians and cyclists will then continue north for 290m towards the park. There is overhead street lighting provided. There are dropped kerbs provided at the vehicle crossover of the nearby Woolpack entrance. Circa 140m north of Swallowfield Lane, the footway is separated from the carriageway by a grass verge. This can be seen in **Photograph 5.9** below.

**Photograph 5.9: Grass Verge along Footway**



5.31 This route may not meet the Healthy Streets indicators 'people feel safe' and 'people choose to walk and cycle,' in particular at night-time. There are no residential houses along this route and there is a lack of commercial amenities. Some employees may be uncomfortable on this route at night. However, as this route is to a local amenity, which if concerned about personal safety people would not use at night, it is unlikely that pedestrians or cyclists would use this route in the hours of darkness.

5.32 On balance, there are no real improvements which could be made to this route to further encourage active travel.

## Route 5: Bus Stops on The Square

5.33 The nearby bus stops on The Square, in the nearby business park to the north, are accessible via the same route as all previous routes. Like with **Route 4**, pedestrians and cyclists will turn north along Dawley Road. However, pedestrians will stay on the eastern side of the carriageway rather than cross Dawley Road. Cyclists will travel north on-road.

5.34 After circa 170m, pedestrians and cyclists will turn north-west along Bolingbroke Way. Pedestrians will cross to the northern side of Bolingbroke Way as there is no footway provided along the southern side. Continuing west for circa 120m, pedestrians will then need to cross the carriageway south, to an unnamed road. There is a footway provided here with a grass verge separating the carriageway.

5.35 Pedestrians will then enter the Square, an open square with several large-scale commercial offices. There is overhead street lighting provided. There is a network of footways provided here with dropped kerbs and tactile paving at the crossing points. An image of the footway is provided in **Photograph 5.10**.

**Photograph 5.10: The Square Footway**



5.36 While The Square is an open space, some individuals may feel uncomfortable walking here with trees and hedges possibly giving a sense of unease. Furthermore, there is a lack of dropped kerbs at the crossing points noted along Bolingbroke Way, as can be seen in **Photograph 5.11**.

**Photograph 5.11: Bolingbroke Way Crossing**



5.37 Improvements to this route could be the provision of dropped kerbs with tactile paving along Bolingbroke Way.

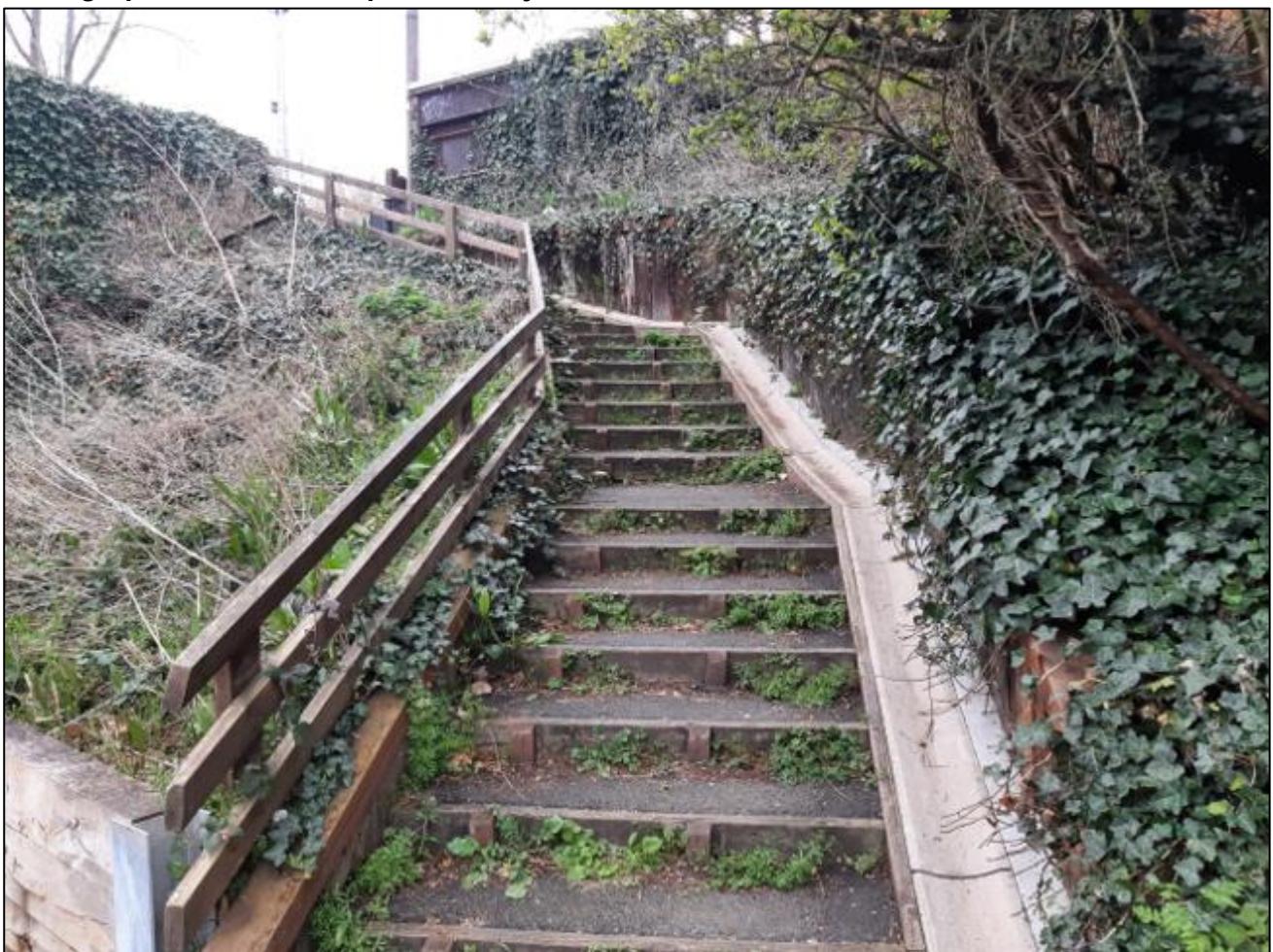
#### **Route 6: Alternative Route to Hayes & Harlington Rail Station**

5.38 **Route 1** is considered the main route to Hayes & Harlington rail station. However, there is an alternative route that pedestrians/cyclists may choose to travel along. This route comprises the Grand Union Canal's shared footway/cycleway so may be considered more suitable for cyclists wishing to access the station. However, pedestrians may also choose to use this route as it is considered more attractive given the canal and trees along the canal.

5.39 To access the canal, pedestrians and cyclists must follow the same route as **Route 4**. However, rather than continuing north along Dawley Road, pedestrians and cyclists will access the canal via steps provided circa 70m north of the Dawley Road/Swallowfield Way roundabout.

5.40 These are wide steps with sufficient space for two people to pass abreast. There is also a ramp alongside the steps, which could be used by cyclists pushing their bikes. These steps can be seen in **Photograph 5.12**.

**Photograph 5.12: Canal Steps to Dawley Road**



5.41 Once down the steps, pedestrians and cyclists will continue east along the towpath for 1km. There is a lack of overhead lighting along this route. On the day of the site visit, there were some riverboats moored along the canal which can be considered to provide overlooking and a great sense of safety, though it is unclear how frequently riverboats moor on this section of the canal.

5.42 After 1km, pedestrians and cyclists will then exit the canal via steps to Station Road. These steps are more narrow than the steps in **Photograph 5.12** and lack a ramp. These steps can be seen in **Photograph 5.13** below.

**Photograph 5.13: Canal Steps to Station Road**



- 5.43 After climbing these steps, pedestrians and cyclists will travel south along Station Road for 200m, reaching Hayes & Harlington Station via Station Road or Station Approach, as described in **Route 1**.
- 5.44 As with **Route 4, 5, and 6**, it could be suggested that this does not meet the Healthy Streets indicators 'people feel safe' and 'people choose to walk and cycle,' particularly at night-time. There are no residential houses along this route and there is a lack of overhead lighting along the canal. However, this is an alternative route to Hayes & Harlington rail station, and it is expected that the majority of employees will access the station via **Route 1**, particularly at night-time.
- 5.45 The only sensible improvements which could be made to this route are the potential installation of a ramp on the steps serving Station Road, and the trimming of vegetation along the route where necessary, particularly on the ramp serving Dawley Road.

### **Summary**

- 5.46 Six key destinations have been identified and agreed with LBH and TfL and the routes to these destinations have been mapped within the ATZ. Whilst these existing routes are of good quality, a number of potential improvements have been identified, including providing additional tactile paving, footway connections to the site, and improving surface materials which could be provided along these routes.

5.47 These improvements could include:

- A footway connection between the site and the existing footway along Rigby Lane;
- Dropped kerb with tactile paving at crossover point along Blyth Way, located circa 455m from Dawley Road;
- Tactile paving at two crossing points along Dawley Road; and
- Dropped kerbs with tactile paving along Bolingbroke Way.

## 6 Trip Generation

### Introduction

6.1 This section of the note provides a summary of the existing trips generated by the site as well as a forecast for the trips expected to be generated in relation to the proposed development. These are then compared to understand the net impact of the proposed development on the local highway network.

### Existing Trip Generation

6.2 The existing site comprises a crane depot with some small-scale offices and storage facilities. In order to determine the existing level of traffic generated by the existing operation at the site, a survey was undertaken recording the number of vehicles arriving and departing each hour across a 24-hour period.

6.3 These surveys were undertaken on Thursday the 23<sup>rd</sup> March 2023 and the results of these surveys are attached at **Appendix E** and summarised below in **Table 6.1**. The HGV trips are numbers provided in the brackets.

**Table 6.1: Existing Trip Generation**

Time Period	Arrivals	Departures	Two-way
<b>AM Peak (08:00-09:00)</b>	4 (0)	0 (0)	4 (0)
<b>PM Peak (17:00-18:00)</b>	1 (1)	7 (0)	8 (0)
<b>Daily 24-Hour</b>	66 (13)	61 (4)	127 (17)

*Note: Errors Due to Rounding*

6.4 As set out in **Table 6.1**, the site currently generates 4 and 8 two-way trips in the AM and PM peak hours.

### Proposed Development Trip Generation

6.5 Given the proposed flexible E(g)(iii)/B2/B8 use class, vehicle trip rates have been derived from the TRICS database using the following search parameters:

- Land Use: Employment – Industrial Estate / Warehousing (commercial);
- Regions: Greater London;
- Location types: Town Centre, Edge of Town Centre and Suburban area;

6.6 Whilst there are no specific E use class sites in TRICS, it is considered that this use is similar to operations under B2/B8 use.

6.7 The full TRICS output is presented at **Appendix E** whilst a summary of the resultant vehicle trip rates for the proposed B2/B8 uses are provided in **Tables 6.2**, and **6.3**. The HGV trip rates are numbers provided in the brackets.

**Table 6.2: Trips Rates and Proposed Trip Generation (B2/E use class) (Industrial Estate)**

Time Period	Trip Rates			Trip Generation (7,780 sqm)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
<b>AM Peak (08:00-09:00)</b>	0.972 (0.055)	0.534 (0.049)	1.506 (0.104)	76 (4)	42 (4)	117 (8)
<b>PM Peak (17:00-18:00)</b>	0.278 (0.011)	0.681 (0.008)	0.959 (0.019)	22 (1)	53 (1)	75 (1)
<b>Daily 24-Hour</b>	9.764 (0.563)	9.741 (0.588)	19.505 (1.134)	760 (44)	758 (46)	1518 (88)

*Note: Errors Due to Rounding*

6.8 As set out in **Table 6.2**, if the development were to comprise B2/E(g)(iii) use class only, the site would result in 117 and 75 two-way vehicle trips in the AM and PM peak hours respectively, with 8 and 1 two-way HGV trips in the peak hours.

**Table 6.3: Trips Rates and Proposed Trip Generation (B8 use class) (Warehousing Commercial)**

Time Period	Trip Rates			Trip Generation (7,780 sqm)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
<b>AM Peak (08:00-09:00)</b>	0.406 (0.031)	0.101 (0.037)	0.507 (0.068)	32 (2)	8 (3)	39 (5)
<b>PM Peak (17:00-18:00)</b>	0.165 (0.030)	0.458 (0.037)	0.623 (0.067)	13 (2)	36 (3)	48 (5)
<b>Daily 24-Hour</b>	2.924 (0.581)	2.862 (0.571)	5.786 (1.152)	227 (45)	223 (44)	450 (90)

*Note: Errors Due to Rounding*

6.9 However, as set out in **Table 6.3**, if the development were to comprise B8 use class only, the site would result in 39 and 48 two-way vehicle trips in the AM and PM peak hours respectively, with 5 two-way HGV trips in the peak hours.

6.10 Therefore, in order to provide a worst-case trip generation scenario for highway impact purposes only, the highest trip rates based on a flexible use have been used, taken from **Table 6.2** and **Table 6.3** above.

6.11 It should be noted that this trip generation does not take into account any travel plan measures.

6.12 A summary of the trip generation based on the proposed flexible use classes is provided in **Table 6.4**.

**Table 6.4: Worst-Case Scenario Trip Generation**

Time Period	Arrivals	Departures	Two-way
<b>AM Peak (08:00-09:00)</b>	76 (4)	42 (4)	117 (8)
<b>PM Peak (17:00-18:00)</b>	22 (2)	53 (3)	75 (5)
<b>Daily 24-Hour</b>	760 (45)	758 (46)	1518 (90)

*Note: Errors Due to Rounding*

- 6.13 The largest increase in vehicle trips in the AM and PM peak hours are likely to be experienced if the proposals were to comprise a B2/E(g)(iii) use class. Whilst it is unlikely that the scheme will fully comprise solely B2/E(g)(iii) use class, if it were, this would be likely to result in 117 and 75 two-way trips in the AM and PM peak hours respectively.
- 6.14 With regard to HGVs, the largest increase in the AM peak hour is likely to be experienced if the proposals were to comprise a B2/E(g)(iii) use class with 8 two-way HGVs predicted.
- 6.15 In the PM peak hour, the B8 use class would result in the largest increase in HGV trips with 5 two-way HGV trips predicted.

### Net Trip Generation

- 6.16 To understand the potential impact of the development on the local highway network, the existing trip generation has been compared to the worst-case scenario proposed trip generation to achieve a net trip generation.
- 6.17 This net trip generation is summarised in **Table 6.5** below.

**Table 6.5: Net Trip Generation**

Time Period	Existing			Proposed			Net		
	Arr	Dep	Two-way	Arr	Dep	Two-way	Arr	Dep	Two-way
<b>AM Peak (08:00-09:00)</b>	4 (0)	0 (0)	4 (0)	76 (4)	42 (4)	117 (8)	72 (4)	42 (4)	113 (8)
<b>PM Peak (17:00-18:00)</b>	1 (1)	7 (0)	8 (0)	22 (2)	53 (3)	75 (5)	21 (1)	46 (3)	67 (4)
<b>Daily 24-Hour</b>	66 (13)	61 (6)	127 (19)	760 (45)	758 (44)	1518 (90)	694 (32)	697 (38)	1391 (71)

*Note: Errors Due to Rounding*

- 6.18 As demonstrated in **Table 6.5**, the development is expected to generate an additional 113 and 67 two-way trips in the AM and PM peak respectively. It should be noted that this trip generation does not take into account any travel plan measures.

6.19 Regarding HGV, the development is expected to generate an additional 8 and 4 two-way HGV trips in the AM and PM peak respectively.

### Site Access Junction

6.20 The site access junction on Rigby Lane is currently shared with an existing operational site to the west. It is understood that this site is occupied by a portacabin rental facility. In order to understand the impact of the development on this junction, the surveys which are attached at **Appendix E** also analysed the entry and exit numbers of this adjacent site. The results of this survey have been compared to the net trip generation shown in **Table 6.5**.

6.21 The comparison of the existing site to the west and the net trip generation of the proposed development is shown in **Table 6.6** below.

**Table 6.6: Site Access Junction Assessment**

Time Period	Adjacent Site			Proposed Development		
	Arr	Dep	Two-way	Arr	Dep	Two-way
<b>AM Peak (08:00-09:00)</b>	12	2	14	72	42	113
<b>PM Peak (17:00-18:00)</b>	0	4	4	21	46	67
<b>Daily 24-Hour</b>	38	35	73	694	697	1391

6.22 As can be seen in **Table 6.6**, the adjacent site generates 14 and 4 two-way movements in the AM and PM peaks respectively. This is the equivalent of a vehicle movement every 4 and 15 minutes. As such, it is not expected that the adjacent site will impact the proposed development.

### Distribution

6.23 A distribution exercise has also been undertaken. As Rigby Lane/Swallowfield Way is a no-through road, 100% of development traffic will route through the nearby Swallowfield Way/Dawley Road roundabout junction. Traffic will then be dispersed, with the impact of the development lessened at further junctions on the local highway network.

6.24 As all vehicles will route through Swallowfield Way/Dawley Road roundabout junction, this junction will be surveyed. Due to school holidays in April, and construction work on Blythe Road, the surveys will not be completed in time to be submitted with this TA. Therefore, a junction impact assessment will be undertaken, following the submission of this report, and presented in an addendum report to this TA.

### Mode Share

6.25 As the site occupiers are unknown, the mode split of staff travel at this site is also unknown, therefore in the absence of this data, 2011 Census journey to work data has been used as a proxy for the site to establish typical travel behaviour of workers in the local area currently. Data from the 2021 Census has not been used as this data is skewed by the Covid-19 pandemic, with a high proportion of people working from home on the day of the Census.

6.26 Existing 'journey to work' data taken from the 2011 Census has been reviewed for the Middle Super Output Area 'Hillingdon 027, which contains the site and the nearby surrounding area.

6.27 A summary of this data is set out in **Table 6.7**.

**Table 6.7: 2011 Method of Travel to Work Census Data**

Method of Travel to Work	Mode Split
<b>Underground, metro, light rail or tram</b>	3%
<b>Train</b>	5%
<b>Bus</b>	11%
<b>Taxi</b>	0%
<b>Motorcycle</b>	1%
<b>Driving a car or van</b>	72%
<b>Passenger in a car or van</b>	3%
<b>Bicycle</b>	2%
<b>On Foot</b>	4%
<b>Other</b>	0%
<b>Total</b>	100%

6.28 **Table 3.1** shows the mode split for those working in the area for car driver is 71%. Approximately 25% of those working in the site will travel via sustainable modes such as public transport, walking, and cycling.

6.29 The modal split has been applied to the trip generation presented in **Table 6.7**. This is summarised in **Table 6.8**.

**Table 6.8: Development Trips by Mode**

Method of Travel	AM Peak Hour Trips	PM Peak Hour Trips
<b>Underground, metro, light rail, tram</b>	5	3
<b>Train</b>	7	4
<b>Bus, minibus, or coach</b>	17	10
<b>Taxi</b>	0	0
<b>Motorcycle, scooter, moped</b>	2	1
<b>Driving a car or van</b>	113	67
<b>Passenger in a car or van</b>	4	3
<b>Bicycle</b>	3	2
<b>On foot</b>	6	4
<b>Total</b>	158	93

- 6.30 It can be seen from **Table 6.8** that the largest proportion of sustainable trips generated by the development are likely to travel to and from the site via bus with 17 and 10 two-way trips predicted in the AM and PM peak hours respectively. As these bus trips are minimal, it is not expected that the proposed development would impact on local bus services.
- 6.31 There are four bus services within a circa 16-minute walk distance from the site, which operate with between 3-6 buses per hour. It is therefore concluded that once split across these four bus routes, the increases in bus passengers will be imperceptible, and no further assessment or mitigation is required.
- 6.32 Regarding rail, the proposed development will generate 12 and 7 two-way trips in the AM and PM peaks respectively. There are two rail service from Hayes & Harlington Station. The rail trips are considered minimal and should not impact the Great Western Railway or Elizabeth Line rail services.

### **Forecast Parking Demand**

- 6.33 In order to provide further justification into the level of car parking proposed, an analysis has been undertaken to determine the forecast car parking demand for the development proposals. The purpose of undertaking this parking accumulation is to inform the design process with the aim of reflecting how the site is envisaged to operate.
- 6.34 As the site is proposed as a flexible (E(g)(iii)/B2/B8) use class, the parking accumulation assessment has been calculated using both an all B2 and all B8 trip rate provided at **Appendix E** and used to inform **Table 6.2** and **6.3**.
- 6.35 As TRICS only provide a 12-hour profile, the 24-hour trip rates have been established using a nearby ATC. This ATC was then used to determine a factor for finding the trip rates for the hours outside of those provided by TRICS.
- 6.36 The forecast car parking demand for a B2 use class is shown in **Table 6.9**, while a B8 use class is shown in **Table 6.10**.

**Table 6.9: Forecast Parking Demand for B2 Use Class**

Time	Arrivals	Departures	Parking Accumulation
00:00-01:00	5	5	0
01:00-02:00	3	3	0
02:00-03:00	2	2	0
03:00-04:00	2	2	0
04:00-05:00	2	2	0
05:00-06:00	6	6	0
06:00-07:00	18	18	0
07:00-08:00	50	27	24
08:00-09:00	71	38	57
09:00-10:00	65	46	76
10:00-11:00	64	57	82
11:00-12:00	59	66	76
12:00-13:00	54	59	72
13:00-14:00	50	50	72
14:00-15:00	48	54	66
15:00-16:00	44	52	59
16:00-17:00	35	49	44
17:00-18:00	21	52	13
18:00-19:00	18	28	2
19:00-20:00	34	34	2
20:00-21:00	24	24	2
21:00-22:00	16	16	2
22:00-23:00	14	14	2
23:00-00:00	10	10	2

6.37 **Table 6.9** shows that with an B2 use class, there could be a maximum demand of up to 82 vehicles, albeit this is for a one hour period.

**Table 6.10: Forecast Parking Demand for B8 Use Class**

Time	Arrivals	Departures	Parking Accumulation
00:00-01:00	1	1	0
01:00-02:00	1	1	0
02:00-03:00	0	0	0
03:00-04:00	0	0	0
04:00-05:00	0	0	0
05:00-06:00	2	2	0
06:00-07:00	5	4	0
07:00-08:00	17	4	14
08:00-09:00	29	5	38
09:00-10:00	12	6	45
10:00-11:00	8	7	46
11:00-12:00	10	12	44
12:00-13:00	11	16	39
13:00-14:00	14	11	43
14:00-15:00	7	10	41
15:00-16:00	8	10	39
16:00-17:00	9	14	33
17:00-18:00	11	33	10
18:00-19:00	11	18	3
19:00-20:00	9	9	4
20:00-21:00	6	6	4
21:00-22:00	4	4	4
22:00-23:00	4	3	4
23:00-00:00	3	2	4

6.38 **Table 6.10** shows that with an B8 use class, there could be a maximum demand of up to 46 vehicles, albeit this is for a one hour period.

6.39 An average of the trips rates has been undertaken to represent the anticipated parking demand through a flexible (E(g)(iii)/B2/B8) use class. This is considered appropriate as to discourage the use of the car over sustainable modes whilst providing enough parking for the anticipated demand. This is in line with the narrative of the London Plan which encourages travel by sustainable modes.

6.40 The forecast car parking demand for the development proposals is presented within **Table 6.11**.

**Table 6.11: Forecast Parking Demand for Development Proposals**

Time	Arrivals	Departures	Parking Accumulation
00:00-01:00	3	3	0
01:00-02:00	2	2	0
02:00-03:00	1	1	0
03:00-04:00	1	1	0
04:00-05:00	1	1	0
05:00-06:00	4	4	0
06:00-07:00	11	11	0
07:00-08:00	34	15	19
08:00-09:00	50	21	47
09:00-10:00	39	26	60
10:00-11:00	36	32	64
11:00-12:00	35	39	60
12:00-13:00	33	37	56
13:00-14:00	32	30	57
14:00-15:00	28	32	53
15:00-16:00	26	31	49
16:00-17:00	22	32	38
17:00-18:00	16	43	12
18:00-19:00	14	23	3
19:00-20:00	22	21	3
20:00-21:00	15	15	3
21:00-22:00	10	10	3
22:00-23:00	9	9	3
23:00-00:00	6	6	3

6.41 **Table 6.11** suggests that the maximum parking demand for a flexible use is around 64 vehicles. On this basis the 61 proposed car parking spaces is considered appropriate for the anticipated use of the site whilst encouraging travel by modes other than the car.

## Summary

6.42 The proposed development is likely to generate an additional 113 and 67 two-way vehicle trips in the AM and PM peak hours respectively. There would also be an additional 17 and 10 two-way bus trips in the AM and PM peak hours respectively.

6.43 The forecast parking demand has also shown that the 61 proposed car parking spaces is appropriate.

6.44 A junction impact assessment will be undertaken at the Swallowfield Way/Dawley Road roundabout. These results will be presented in an addendum report following the submission of this TA.

## 7 Summary and Conclusion

- 7.1 Vectos has been appointed by Wrenbridge (FRELD Hayes) LLP to provide transport planning advice regarding the proposed redevelopment of 84 Swallowfield Way, Hayes, which is an existing crane depot site.
- 7.2 The site is located within the administrative boundary of the London Borough of Hillingdon (LBH) and Transport for London (TfL) are a statutory consultee.
- 7.3 The site is in an existing industrial area circa 1.6km west of Hayes & Harlington rail station within LBH. Swallowfield Way provides access onto Rigby Lane, which borders the site to the north, with industrial uses bordering the site to the east and west. The site is bordered to the south by a rail line.
- 7.4 The proposals comprise the redevelopment of the site to provide four units with a flexible E(g)(iii)/B2/B8 land use and a combined floor area of 7,780 sqm. Vehicular access to the site will be achieved via the existing access from Rigby Lane, which is shared by an adjacent storage facility to the west.
- 7.5 Vehicular access to the site is retained via Rigby Lane to the north of the site.
- 7.6 Given the flexible use classes of the proposed units, it is proposed that cycle parking will be in accordance with the LP standards for B2 and B8 uses. As such, 24 sheltered cycle parking spaces are proposed, with each unit to be provided with dedicated space for 6 cycle parking spaces. These spaces will be secure, accessible by staff only, and sheltered from the weather.
- 7.7 In accordance with the LP standards for car parking, 61 parking spaces will be provided. A total of 20% of these spaces will be provided with active electric vehicle charging facilities with the remaining 80% provided with passive facilities.
- 7.8 A total of five Blue Badge spaces will also be provided onsite and all five of these spaces will be provided with active electric vehicle charging facilities.
- 7.9 An ATZ assessment has also been undertaken to assess the walking routes from the site to the main sustainable transport network including nearby bus stops and railway station. This assessment has highlighted some improvements that could be made to these routes in order for employees to feel safer using these routes particularly at night after their shifts. These improvements include:
  - A footway connection between the site and the existing footway along Rigby Lane;
  - Improved surface conditions along Blyth Road footway, circa 455m from Dawley Road;
  - Tactile paving at two crossing points along Dawley Road; and
  - Dropped kerbs with tactile paving along Bolingbroke Way.
- 7.10 A WTP, DSMP, CLP and CPMP will also be submitted to support this planning application. These plans will encourage employees and visitors to travel to and from the site via sustainable modes of transport, set out how deliveries to the site will be managed, manage construction vehicle activity to

and from the site during the construction period, manage how the site is operated, and how car parking is managed on-site.

- 7.11 As all vehicles will route through Swallowfield Way/Dawley Road roundabout junction, this junction will be surveyed. Due to school holidays in April, and construction work on Blythe Road, the surveys will not be completed in time to be submitted with this TA. Therefore, a junction impact assessment will be undertaken and presented in an addendum report to this TA.
- 7.12 The proposed development is likely to result in an overall increase in vehicle trips however it is considered that this will not result in a material impact along the highway network and will not result in a severe impact as referred to within the NPPF.
- 7.13 Overall, on transport grounds, the proposed development should be supported.

## **Conclusion**

- 7.14 Consequently, the proposed development:
  - provides opportunities for sustainable transport modes to be taken up given the site's location;
  - ensures safe and suitable access to the site can be achieved for all users; and
  - demonstrates there would be no severe impacts from the development on the transport network or on highway safety
- 7.15 It is therefore concluded that the proposed development at the site would not result in an adverse impact on highway safety or a severe impact on the highway network, and therefore the proposed development should be supported in transport terms.

## Appendix A



Our Reference: HLDN/23/2

Emma Stonard  
Vectos

Via email only

Transport for London  
City Planning

5 Endeavour Square  
Westfield Avenue  
Stratford  
London E20 1JN

Phone 0343 222 1234  
[www.tfl.gov.uk](http://www.tfl.gov.uk)

17th March 2023

Dear Emma,

## **Re: 84 Swallowfield Way, Hayes – TfL's pre-application advice**

Thank you for participating in Transport for London's (TfL) pre-planning application process, the aim of which is to ensure that the development is successful in transport terms and in accordance with relevant London Plan policies. This letter sets out the advice provided by TfL on the transport issues discussed at the pre-application meeting held on 6<sup>th</sup> March 2023 regarding the proposed redevelopment of a site in the London Borough of Hillingdon (LBH).

The following comments are made by TfL officers on a 'without prejudice' basis only and are intended to ensure that this development is successful in transport terms and in line with relevant London Plan policies.

The meeting was attended by the following:

Joely Hill  
Hattie Eve

Principal Technical Planner, TfL  
Assistant Planner, TfL

Karl Dafe  
Alan Tilly

LB Hillingdon, Case Officer  
LB Hillingdon, Transportation Team Manager

Emma Stonard  
Ian Southwell

Vectos Consulting  
Vectos Consulting

This pre-application response is based on the information provided to date, including the supporting documents and summarises the key points discussed at our meeting.

## **Development Proposals**

Based on the information provided in the Transport Note and the pre-application meeting, it is understood that the redevelopment will provide class E(iii)/B2/B8 land use with a combined floor area of approximately 7,733sqm.

Two options were presented at the meeting; a scheme with one access from Rigby Road with four units, each with individual parking areas, which is understood to be the preferred option and could be occupied by 4 different occupiers. The other option comprises one large industrial unit, with access taken from two points on Rigby Road; one to access the rear of the unit and one to a parking area at the front of the building.

## **Site Context**

The site is located on the southern side of Rigby Lane (close to where Swallowfield Lane becomes Rigby Lane) and is bound by industrial sites to the north, west and east with a train track to the south.

The nearest part of the Transport for London Road Network (TLRN) is some distance from the site: the A312 lies some 3.2 kilometres to the east. The nearest part of the Strategic Road Network is A4020 Uxbridge Road, which is 2.6km north of the site.

The nearest station is Hayes & Harlington providing Elizabeth line and Great Western Railway services. One bus route is located within 400m walking distance of the site. The site therefore has a Public Transport Accessibility Level (PTAL) of 1a, on a scale of 0 to 6b where 6b is the highest.

The site is currently occupied by a Crane storage company and is B8 use.

## **Transport Assessment (TA)**

In line with London Plan policy T2 the TA will need to be prepared in accordance with TfL's Healthy Streets TA best practice guidance, which can be found on the following link: <https://content.tfl.gov.uk/healthy-streets-ta-format.pdf>.

This should include, but not be limited to, an Active Travel Zone (ATZ) assessment, trip and mode share assessment, trip distribution and servicing. Further detailed guidance in relation to this development proposal is set out below.

## **Site Access**

The existing site comprises of only one site access from Rigby Lane. TfL requests that the proposed junctions should be designed to prioritise minimised risks between pedestrians/cyclists and motor vehicles.

A second option was presented which had two vehicular access points, one of which served the proposed car park. However, this additional access would prioritise vehicle movement over that of sustainable modes, which is contrary to Policy T2.

Stage 1 Road Safety Audits and swept paths assessments for all intended vehicles should therefore be carried out for all of the proposed vehicle access points as well as internal road network and proposed parking areas within the site.

### **Healthy Streets**

As identified in Policy T2 of the London Plan, all developments should seek to deliver improvements that support the Mayor's Healthy Streets approach. The Healthy Streets approach seeks to improve air quality, reduce congestion and make attractive places to live and work. There are ten Healthy Streets indicators which put people and their health at the heart of decision making and aim to result in a more inclusive city where people choose to walk, cycle, and use public transport.

After reviewing current proposals, it is strongly recommended that the design and transport applicant teams follow GLA Good Growth by Design guidance. Their publication titled Safety In The Public Realm - Women, Girls and Gender Diverse People (via the GLA website) would be of particular relevance given its focus on personal safety.

TfL considers that the proposed development is car-dominated in nature with pedestrians and cyclists not being given priority. The pedestrian and cyclist route into the site from Rigby Lane should be improved to provide a safe and attractive entrance to the site at all times.

Particular attention should be paid to providing a safe pedestrian/cyclist environment within the site in line with Policy T2, where a high level of goods vehicle traffic for the proposed commercial spaces are likely. Additionally, the cycle routes need to be clearly shown as at present there is no real clarity on the cycle network within the site. This request is made in line with the Mayor's Healthy Streets and Vision Zero approach ensuring they are providing a safe and attractive environment for future users.

TfL asks that all of the proposed walking/cycling routes and public realm proposal be assessed against the Mayors' Healthy Street criteria.

All of the above are in line with current London Plan transport policies T1 'Strategic approach to transport', T2 'Healthy Streets' and T5 'Cycling' as well as design policies D3 'Optimising site capacity through the design-led approach', D5 'Inclusive design', D8 'Public realm' and supporting text 3.3.14.

### Active Travel Zone Scope

An ATZ assessment will be included with the TA and should be prepared in line with TfL guidance. The ATZ assessment should focus on key routes in the surrounding walking and cycling network rather than trying to identify all the issues in this dense part of London. The TA Scoping Report suggests the following ATZ destinations:

1. Route to Station (via Blyth Road)
2. Route to Station (via Grand Union Canal Walk)
3. Route to Bus Stops (Dewley Road and Bourne Avenue)
4. Route to Asda (Dawley Road and N Hyde Road)
5. Route to Lake Farm Country Park (Dawley Road, north)
6. Route to the Square Bus Stops (Dawley Road and the Square)

Although some destinations may be outside of the limits that would be feasible to walk, the conditions for cyclists should also be considered. The above destinations incorporate other amenities on these routes including bus stops, the local station, green space, retail, and places of worship. Therefore, the proposed destinations are agreed, and are considered to reflect most of the expected typical journeys that would be made by future occupiers of the development.

Furthermore, it is understood that the proposals could include a 24-hour operation and therefore some night-time activity. To reduce the risk of crime and support the Healthy Streets indicator 'people feel safe' a night-time ATZ assessment should be undertaken for routes that do not have street-level activity during hours of darkness including routes to Hayes and Harlington station and local bus stops, given that these are destinations that will be used during hours of darkness particularly at the times when the shift patterns may start/finish on site.

Close attention to the site boundary and opportunities to enhance streets should be a priority. Footway conditions should be reported, and where necessary should be improved.

### Cycle Parking

It is understood that cycle parking will be in line with the minimum London Plan cycle parking standards identified in Policy T5. The proposals currently include 24 cycle parking spaces, which accords with the minimum London Plan standards, which requires 1 space per 500sqm for long stay spaces and 1 spacer per 1000sqm for short stay spaces.

Cycle parking should be designed in line with London Cycle Design Standards (LCDS), as referred to within Policy T5. TfL would expect details of the cycle parking arrangements to be provided as part of the initial application rather than

being discharged as a condition as it may become more challenging to comply with Policy T5 if the development design is fixed.

Two-tier racks are not suitable for everyone and should be used in combination with more accessible (ie Sheffield) stands. In the absence of evidence, TfL consider that a minimum of 20 per cent of provision should be on Sheffield stands at normal spacing. This is in addition to a minimum of 5 per cent of spaces suitable to accommodate larger and adapted cycles, which should support active freight to and from the site.

As identified in Chapter 8 of the LCDS, short-stay cycle parking should be located in visible, well-lit places that have high levels of natural surveillance and convenient located. It is recommended that a portion of the short-stay cycle parking provision is suitable space to accommodate larger and adapted cycles i.e. cargo bikes, which could support achieving an active freight strategy.

There are concerns that the current proposals for some of the cycle parking is not in the best locations given that they are not adjacent to the building frontages and particularly on plots 2 and 3 it appears as those vehicular parking has been given priority over the cycle parking. Therefore the locations should be revised.

Cyclist facilities such as showers, lockers and perhaps a maintenance station should be provided on site to further encourage cycling to and from the site. The provision of these should be secured through the appropriate mechanism.

### **Vision Zero**

The Mayor's Vision Zero ambition is the elimination of all deaths and serious injuries from London's streets by 2041. The Vision Zero approach requires reducing the dominance of motor vehicles and creating streets safe for active travel.

The proposed development will increase HGV movements to and from the site, and these vehicles carry a greater safety risk. Therefore, accident analysis should be provided and should identify measures which can be used to eliminate accidents and should demonstrate how the scheme will contribute towards the Vision Zero approach. It is supported that this can be incorporated into the ATZ assessment.

From a road safety perspective, HGV's have a greater road safety risk and therefore contributions towards road safety schemes could be likely following a thorough road safety analysis which must be provided in the TA. Furthermore, all action must be taken to mitigate the impact against other road users, particularly vulnerable road users (pedestrian safety should be a high priority) and all HGV's must be compliant to the current DVS requirements. All fleet

operators should adopt safer, cleaner fleet operations through safety schemes such as FORS and CLOCS.

### **Highway Impact**

It is understood that although the end users of the site are currently unknown at this stage, the site could operate on a 24 hour basis and therefore the trip generation will need to reflect shift working. A vehicular trip assessment, including servicing would be needed to allow a full assessment on overall trip generation for the site.

As discussed in the meeting, the existing site should be surveyed to ascertain the current trips generated by the site rather than the current TRICS estimation as this is not considered to be the most appropriate methodology given that the site is still in operation.

The proposed trip generation has been estimated using TRICS and combining B2 and B8 trip rates have been combined to show a worst case scenario for vehicle trips and HGV trips. However, there are concerns that there will be an increase in HGV numbers which is not in line with the Freight Action Plan.

The number of employees and proposed hours of working, particularly the shift working, should be clearly outlined within the trip generation forecasts (a 24 hour trip generation profile should be provided) and a revised net trip generation should be a worst case scenario and shared with TfL at the earliest opportunity for discussion and agreement.

The proposed distribution and routing of all vehicles should also be provided to TfL to understand which junctions may be affected by the increase in the number of trips and therefore the level of highway modelling that is likely to be required within the TA.

TfL may seek a partial financial contribution toward mitigating cumulative traffic impact in the local area, however, this will be confirmed once highway impact assessment has been agreed.

### **Public Transport Impact**

In line with Policy T4, you should ensure that robust public transport analysis is undertaken. This will enable TfL to assess the impact that the proposed development will have on the surrounding transport network and appropriate financial contributions sought to mitigate the development. You should therefore ensure that trips are clearly set out by each transport mode i.e. London Underground, buses, national rail, by line/route and direction.

Please note that contributions towards public transport enhancements may be required subject to a robust, and agreed, trip generation assessment, in line with Policy T4.

## **Delivery and Servicing**

As set out in Policy T7 point F, development proposals for new consolidation and distribution facilities should be supported provided that they do not cause unacceptable impacts on London's strategic road networks and: 1) reduce road danger, noise and emissions from freight trips 2) enable sustainable last-mile movements, including by cycle and electric vehicle 3) deliver mode shift from road to water or rail where possible (without adversely impacting existing or planned passenger services). From the information provided, it is not clear how this is being delivered at the proposed development. This should be clearly explained within any Transport Assessment submitted for the proposed development.

In line with the Mayor's Vision Zero approach, the design of the development should seek to minimise the requirement for reversing. Where it can be demonstrated that this is not possible, management and design measures should be implemented to ensure that there is no conflict between different modes. This should be detailed within the framework Operational Management Plan and/or Delivery and Servicing Plan submitted to support any planning application for this site.

To manage and regulate servicing activity for the site, in line with London Plan policy T7, TfL asks that a site wide Delivery and Servicing plan (DSP) be prepared in line with TfL guidance <http://content.tfl.gov.uk/delivery-and-servicing-plans.pdf>. The site wide comprehensive DSP should include strategy/measures to manage goods vehicle movements within the site to keep disruption to a minimum and to minimise risk of conflict with vulnerable road users.

It is also expected that the proposed 24 hour operation of the site will be addressed and a DSP will be secured via planning condition to regulate vehicles movements.

Swept path analysis have been submitted alongside with the proposed internal highway design to demonstrate goods/servicing vehicles movements, however, it still needs to be demonstrated that two goods vehicles will be able to pass safely without potential collision as there are serious concerns from TfL that the site is constrained with the high level of vehicular parking currently proposed. Removing car parking provision on site could assist in addressing these concerns. There is also a concern that vehicles could queue back onto the adjoining highway network, therefore impacting road safety contrary to Policy T4.

An Operational Management Plan should be secured within a s106 agreement to outline how the site will operate in line with TfL's Freight and Servicing Action Plan which calls for safe, clean and efficient traffic in London.

From an environmental perspective the use of electric vehicles should be maximised and promoted where possible and a cargo bike strategy should be put forward for the site including providing cargo bikes on site, not just spaces for these. The proposed timings of deliveries to and from the site also need to be carefully considered and agreed to minimise the impact on congestion, noise pollution and surrounding residential developments, given the location of the site.

Additionally, the future operators will need to be committed to minimising the number of trips to the site by combining as many trips as possible to the site such as sharing materials between the operators on site and compacting waste from multiple sites before removal.

### **Car parking**

The proposals include 66 parking spaces, which is in line with the London Plan maximum standards. However, these are maximum standards and TfL would strongly encourage the provision is reduced to further encourage sustainable modes. The level of operational parking shall be clearly described and justified in the formal submission. All car parking should also be regulated by a car parking management plan, to be secured by planning condition. A reduction in car parking could assist in providing more space to accommodate delivery and servicing on site.

HGV parking / waiting areas are proposed outside each of the units, however, there are concerns that if there is insufficient space for parking and turning of large vehicles on site that HGV's could be queuing off-site. Therefore consideration and justification of the operational parking provision should be included within the TA to ensure that the design has been carefully considered and is justified.

Appropriate provision should be made for Blue Badge holders and for EVCP facilities for staff parking and for goods vehicles in line with Policy T6 of the London Plan.

### **Travel Planning**

In line with London Plan Policy T4 'Assessing effects on development on transport capacity', it is expected that framework travel plans for the proposed development will be produced supporting the application. It is advised that measure targets should be set to promote the use of active transport, such as walking and cycling; and public transport use as the preferred modes of transport and measures should be applicable to day and night time shift workers. The finalised travel plans should be secured by s106 agreement.

## **Construction**

Furthermore, a framework Construction Logistics Plan (CLP) should be submitted in support of the application and in line with Policy T7. This, and the final document, should be prepared in accordance with TfL guidance, which can be found at <http://content.tfl.gov.uk/construction-logistics-plan-guidance.pdf>. It should have regard to matters including the local environment, concurrent developments, scope for consolidation and use of the canal, and ensuring safe walking and cycling routes are maintained throughout the construction period.

The site is located adjacent to a railway line and therefore you will need to engage with Network Rail to ensure there are no adverse impacts on the operation of the railway during the construction period.

## **Mayoral Community Infrastructure Levy (CIL)**

Mayoral CIL2 within the LB Hillingdon is payable at a rate of £60 per sqm.

## **Other contributions**

In line with London Plan policy T2, TfL will support Hillingdon should they request a contribution to deliver improvements which will benefit future residents of the site, support the 10 Healthy Street indicators, and will further encourage active travel.

## **Conclusion**

In conclusion, based on the information provided in the meeting, the current proposal regrettably does not comply with the current London Plan policies; therefore, the following must be addressed satisfactorily to ensure the proposal is London Plan compliant:

1. It is strongly recommended that the design and transport teams use GLA Good Growth by Design guidance to address safety issues;
2. A high quality and safe walking/ cycle routes with public realm to provide good connection for non-car mode users, e.g. pedestrians, cyclists and public transport users as well as wayfinding;
3. A robust trip generation and mode share assessment for the proposal;
4. Undertake a trip distribution assessment and local highway capacity assessment;
5. Provide cycle parking, shower and changing facilities meeting the London Plan standards and the LCDS;
6. Design the public realm strategy applying the Healthy Street approach and consider necessary improvements for walking and cycling to be secured via the s106 agreement;
7. Provide low level of car parking in line with London Plan standards, production of car parking management plan;
8. Provision of a travel plan with targets and measures to encourage travelling by sustainable modes of transport;

9. Production of a Delivery and Servicing Plan and Construction Logistics Plan;
10. Secure the appropriate Mayor CIL payment.

I hope this information provides a useful basis upon which to progress the design of the scheme and the preparation of the planning application and supporting TA. You are strongly advised to continue engaging with TfL and preferably to seek further advice through TfL follow up Pre-app meetings, as and when more details are becoming available. If, however, you have any queries in the meanwhile, or seek clarification, please do not hesitate to contact either myself or Joely Hill ([joelyhill@tfl.gov.uk](mailto:joelyhill@tfl.gov.uk)).

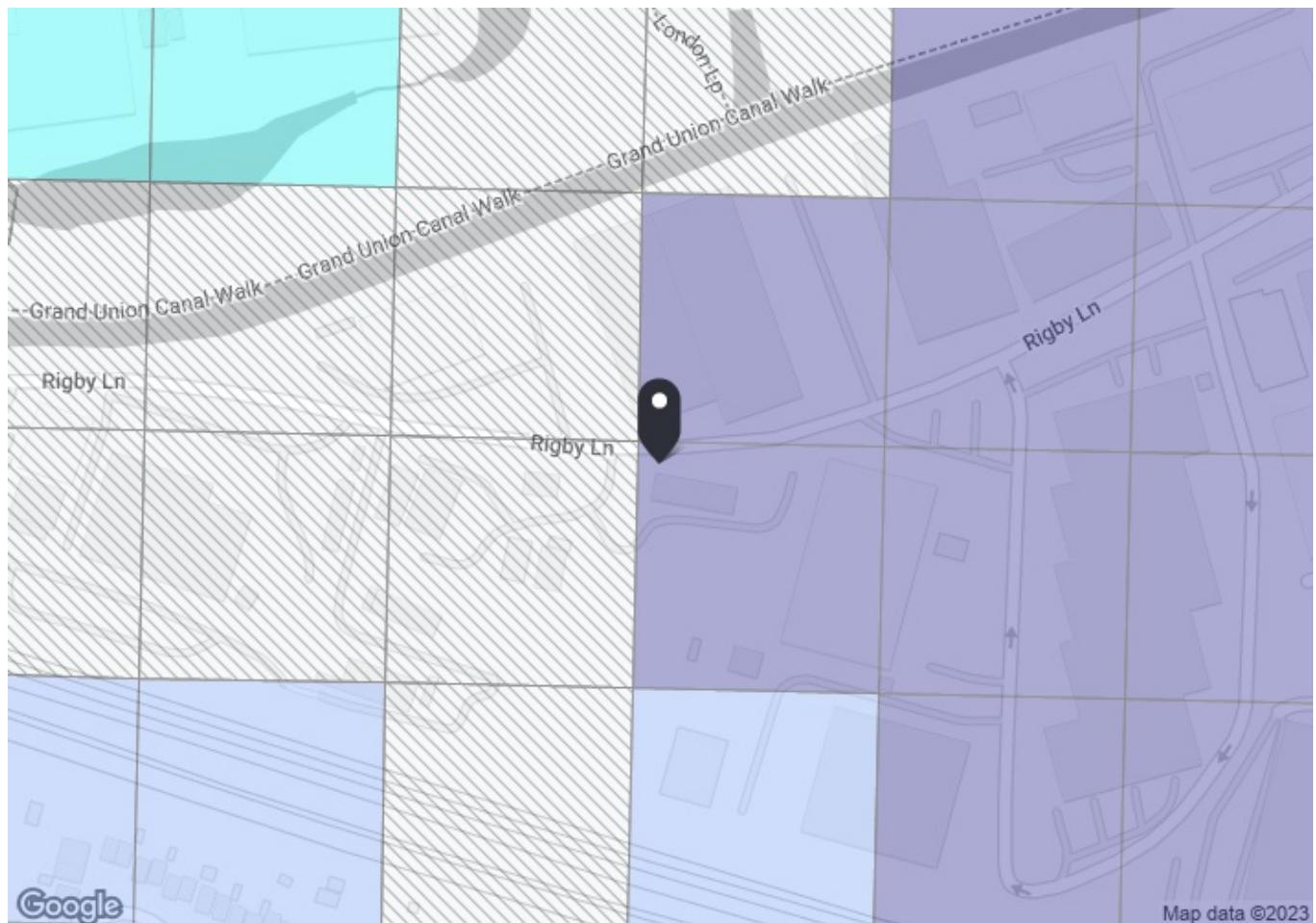
Yours sincerely



Lucinda Turner  
**Director of Spatial Planning**  
Email: [lucindaturner@tfl.gov.uk](mailto:lucindaturner@tfl.gov.uk)  
Direct line: 020 3054 7133

**TfL Spatial Planning is committed to equity, diversity and inclusion and we strive to ensure that Londoners are fully represented in the planning process**

## Appendix B



**PTAL output for Base Year**  
**1a**

8 Rigby Ln, Hayes UB3 1DQ, UK  
Easting: 508405, Northing: 179785

Grid Cell: 76642

Report generated: 04/04/2023

**Calculation Parameters**

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

**Map key- PTAL**

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

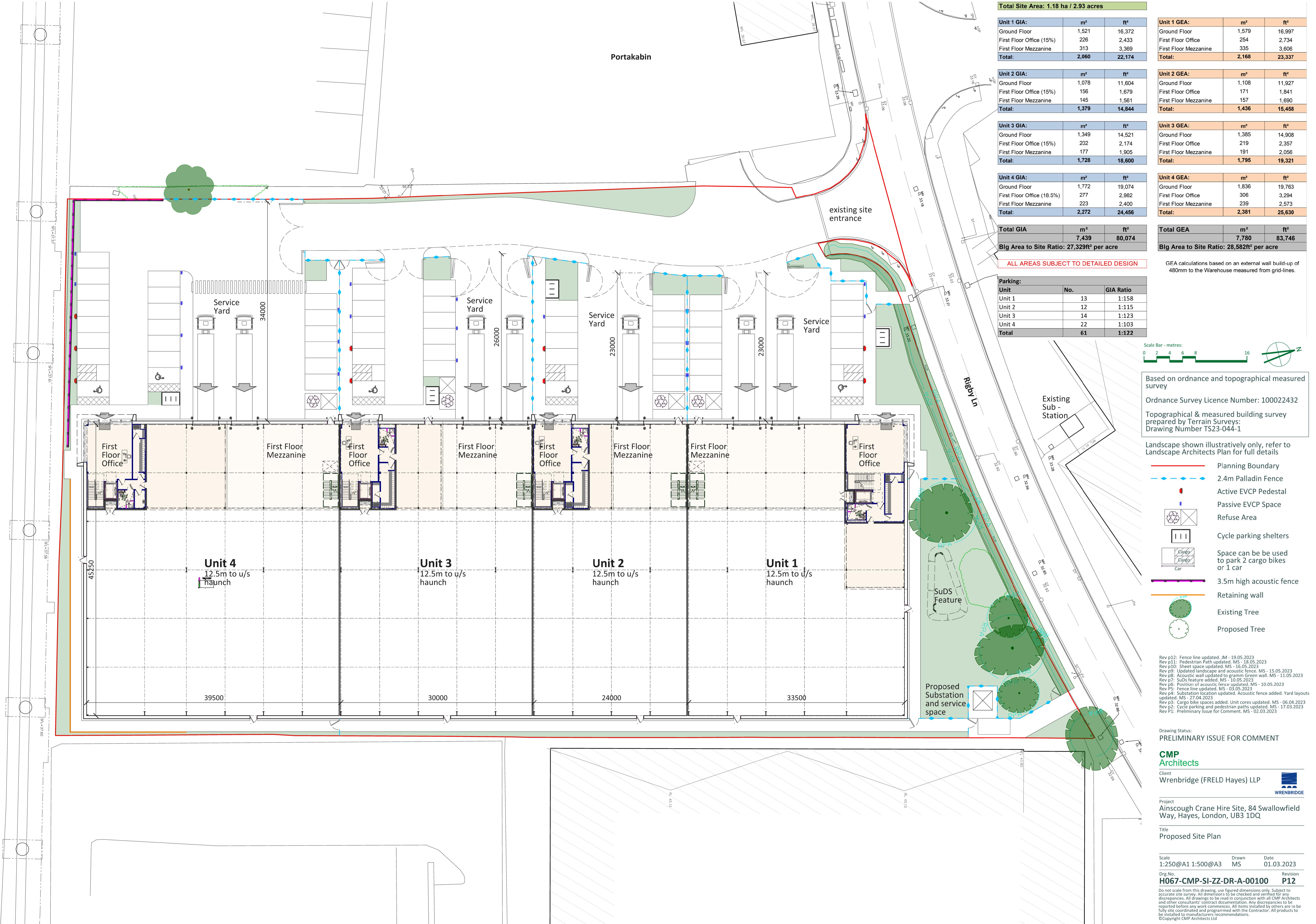
**Map layers**

PTAL (cell size: 100m)

## Calculation data

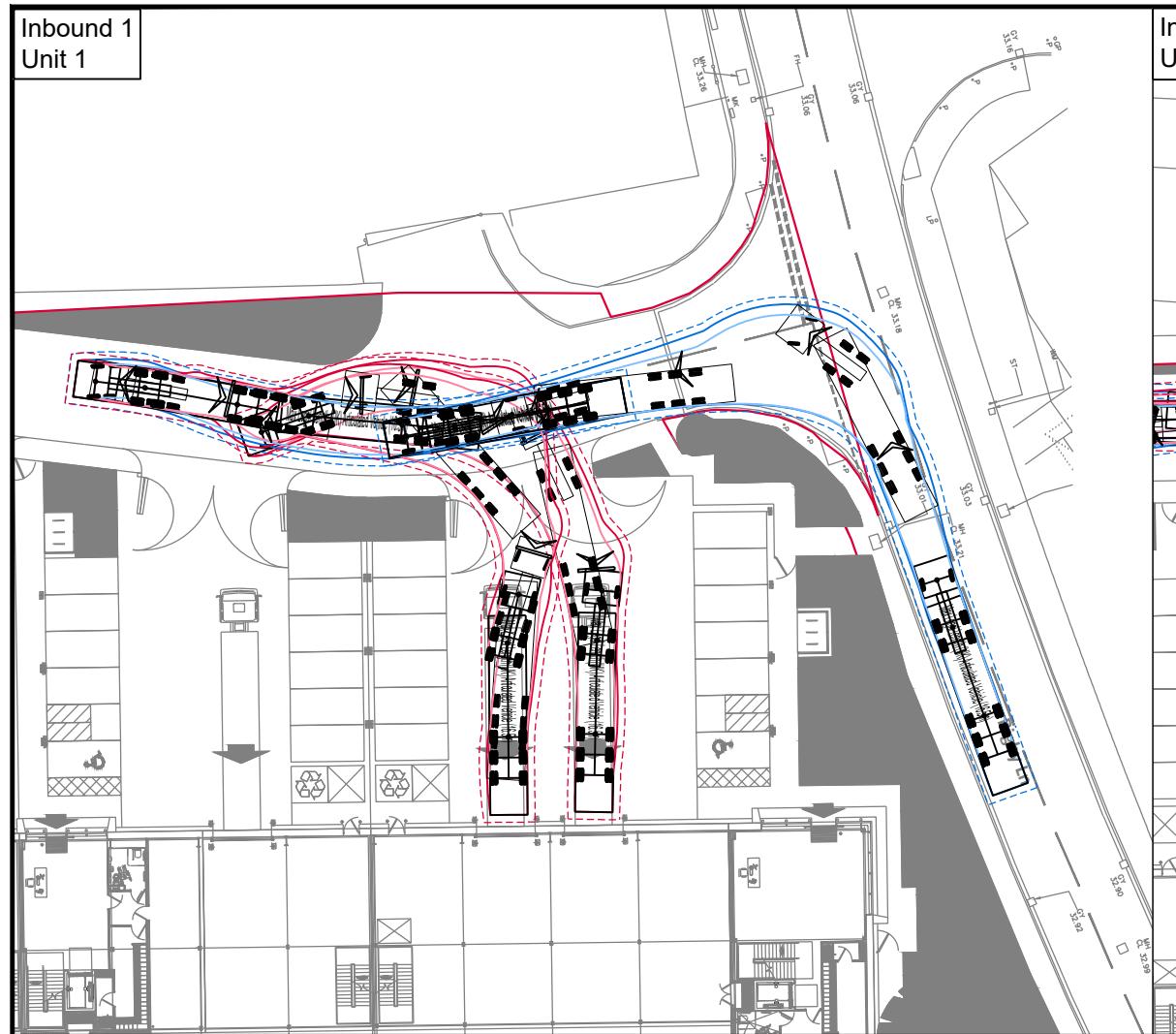
Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	DAWLEY R SWALLOWFIELD WY	350	628.3	5	7.85	8	15.85	1.89	1	1.89
Total Grid Cell AI:										1.89

## Appendix C

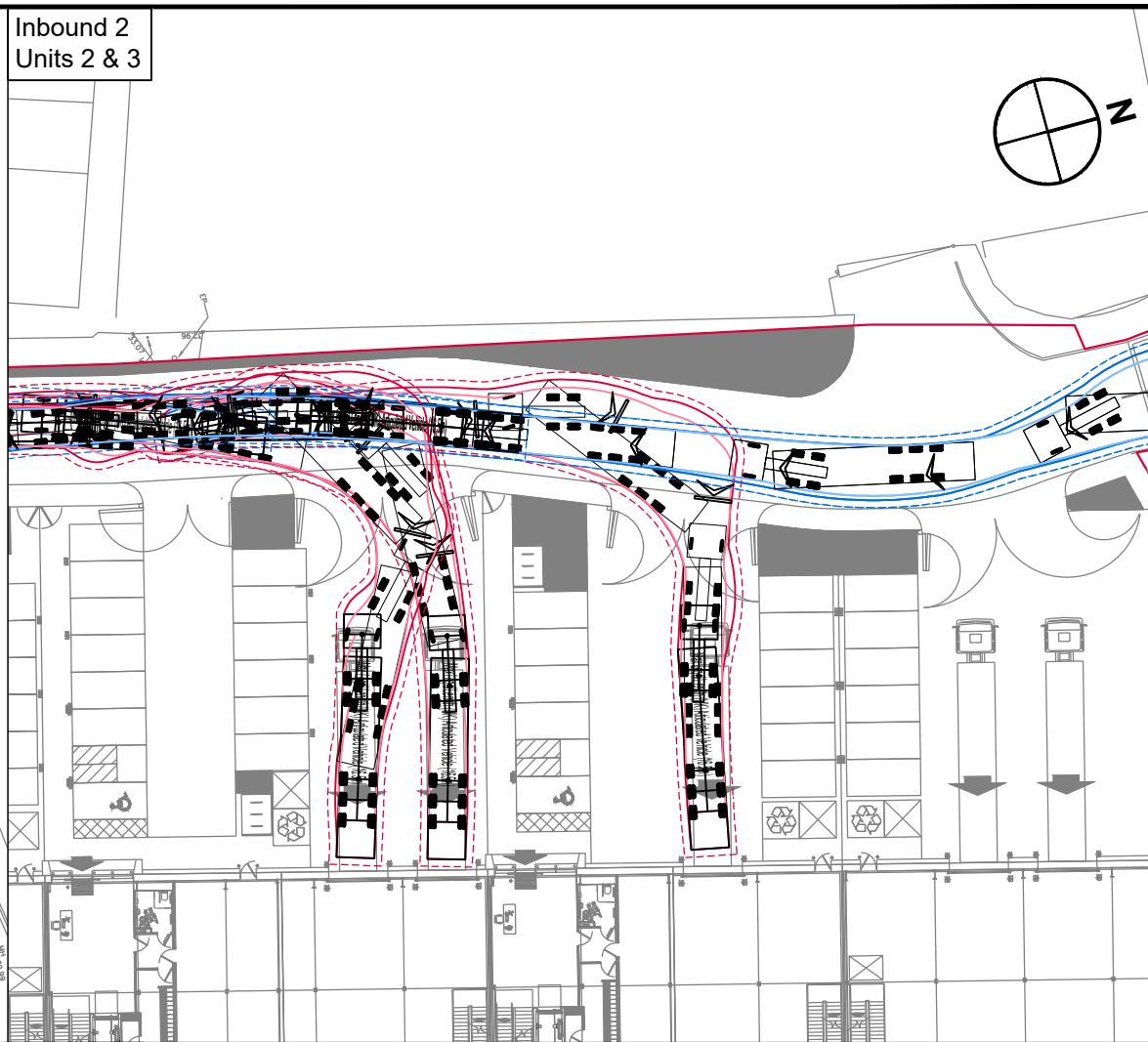


## Appendix D

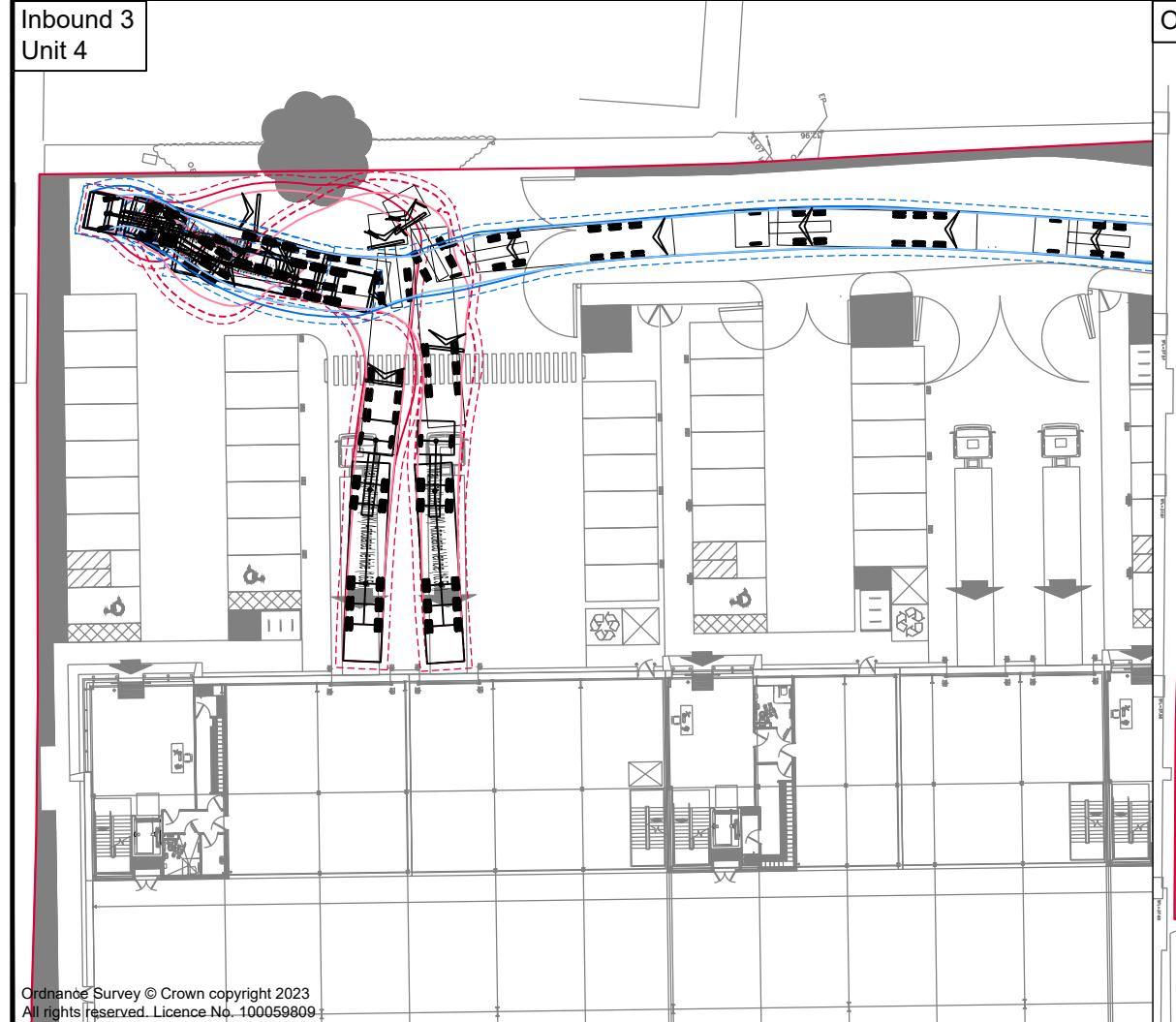
Inbound 1  
Unit 1



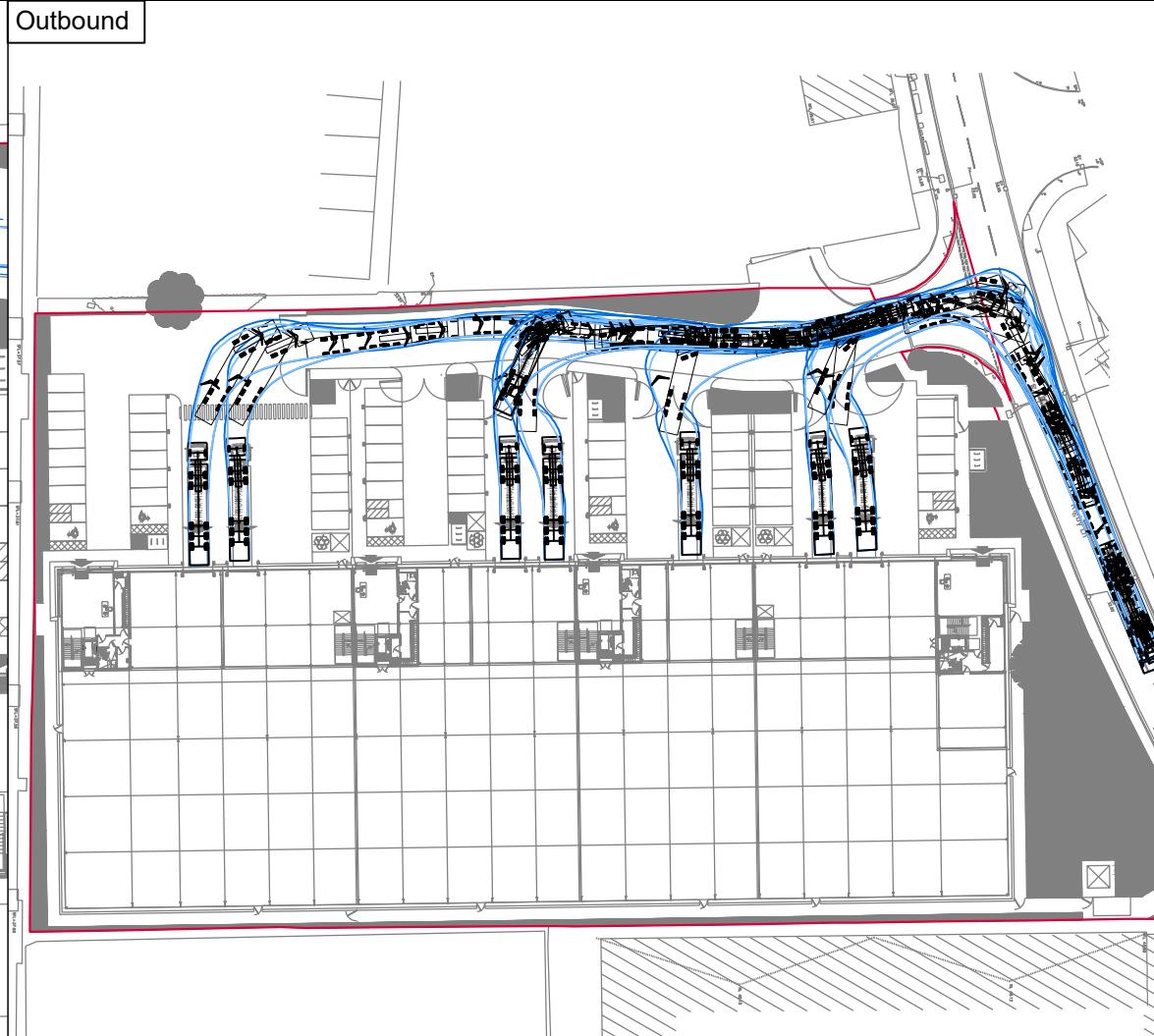
Inbound 2  
Units 2 & 3



Inbound 3  
Unit 4



Outbound



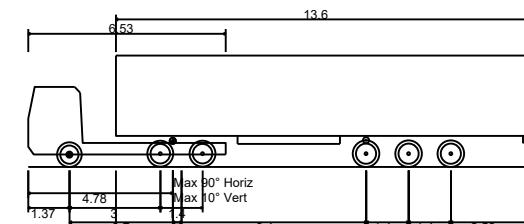
Ordnance Survey © Crown copyright 2023  
All rights reserved. Licence No. 100059809

NOTE: THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN VECTOS (SOUTH) LTD.  
IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR PRIOR WRITTEN CONSENT.

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Based on CMP Architects layout:

H067-CMP-SI-ZZ-DR-A-00100\_P12\_Proposed Site Plan



Max Legal Length (UK) Articulated Vehicle (16.5m)  
Overall Length 16.500m  
Overall Width 2.550m  
Overall Body Height 3.681m  
Min Body Ground Clearance 0.411m  
Max Track Width 2.500m  
Lock to lock time 6.00s  
Kerb to Kerb Turning Radius 6.530m  
0.5M OFFSET IS DISPLAYED AROUND THE VEHICLE PATH IN LINE WITH FTA GUIDANCE AND TO PROVIDE A TOLERANCE MARGIN FOR SAFETY AND DRIVER PERFORMANCE

F	Updated to suit new site plan	JH	JM	25.05.2023
E	Updated to suit new site plan	JH	JM	15.05.2023
D	Updated to suit new site plan	HC	JM	04.05.2023
C	Updated to suit new site plan	AL	JM	07.02.2023
B	Updated to suit new site plan	AL	JM	23.01.2023
A	Updated to suit new site plan	AL	JM	18.01.2023

REV. DETAILS DRAWN CHECKED DATE

STATUS:

INFORMATION ONLY

CLIENT:

Wrenbridge

PROJECT:

Swallowfield Way, Hayes

DRAWING TITLE:  
Swept Path Analysis  
Servicing  
16.5m Articulated Vehicle  
Option 6

SCALES:  
1:500 / 1:1000 at A3

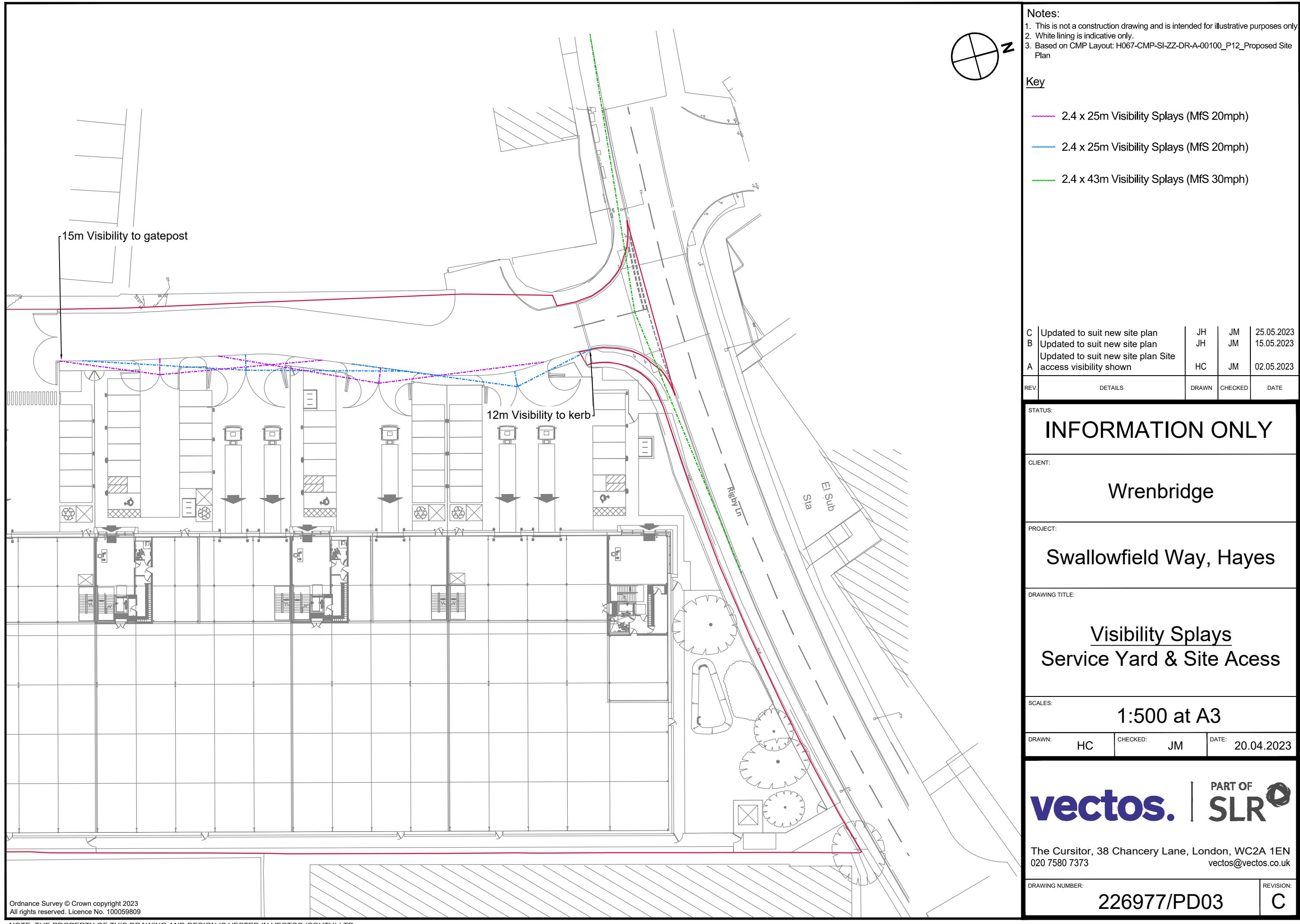
DRAWN: AL CHECKED: JM DATE: 11.01.2023

PART OF  
**vectos.** | **SLR**

The Cursitor, 38 Chancery Lane, London, WC2A 1EN  
020 7580 7373  
vectos@vectos.co.uk

DRAWING NUMBER: 226977/AT/D01 REVISION: F

NOTE: THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN VECTOS (SOUTH) LTD.  
IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR PRIOR WRITTEN CONSENT.



## Appendix E

Calculation Reference: AUDIT-152301-230106-0149

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT  
Category : D - INDUSTRIAL ESTATE  
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
BE	BEXLEY	1 days
BT	BRENT	1 days
HD	HILLINGDON	2 days
HO	HOUNSLOW	1 days
HV	HAVERING	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: 3300 to 13850 (units: sqm)  
Range Selected by User: 2800 to 13850 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 06/06/22

*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:

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

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

Selected Location Sub Categories:

Industrial Zone	4
Residential Zone	1
Built-Up Zone	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:  
Not Known

6 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

Filter by Site Operations Breakdown:  
All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	2 days
20,001 to 25,000	1 days
50,001 to 100,000	2 days

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

Population within 5 miles:

50,001 to 75,000	1 days
250,001 to 500,000	1 days
500,001 or More	4 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	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:

Yes	1 days
No	5 days

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

PTAL Rating:

1b Very poor	3 days
2 Poor	2 days
3 Moderate	1 days

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

LIST OF SITES relevant to selection parameters

1	BE-02-D-01	INDUSTRIAL ESTATE CRABTREE MANORWAY N. ERITH	Edge of Town Industrial Zone Total Gross floor area: 3300 sqm <i>Survey date: WEDNESDAY 19/09/18</i>	BEXLEY
2	BT-02-D-01	INDUSTRIAL ESTATE NORTH CIRCULAR ROAD NEASDEN BRENT PARK Suburban Area (PPS6 Out of Centre) Built-Up Zone	Total Gross floor area: 5565 sqm <i>Survey date: WEDNESDAY 14/11/18</i>	<i>Survey Type: MANUAL</i> BRENT
3	HD-02-D-02	INDUSTRIAL ESTATE BRADFIELD ROAD RUISLIP SOUTH RUISLIP Edge of Town Industrial Zone	Total Gross floor area: 13850 sqm <i>Survey date: THURSDAY 25/06/15</i>	<i>Survey Type: MANUAL</i> HILLINGDON
4	HD-02-D-03	INDUSTRIAL ESTATE BRADFIELD ROAD RUISLIP SOUTH RUISLIP Suburban Area (PPS6 Out of Centre) Industrial Zone	Total Gross floor area: 8310 sqm <i>Survey date: MONDAY 10/06/19</i>	<i>Survey Type: MANUAL</i> HILLINGDON
5	HO-02-D-01	INDUSTRIAL ESTATE HAMPTON ROAD WEST FELTHAM HANWORTH Suburban Area (PPS6 Out of Centre) Industrial Zone	Total Gross floor area: 7400 sqm <i>Survey date: THURSDAY 25/06/15</i>	<i>Survey Type: MANUAL</i> HOUNSLOW
6	HV-02-D-01	INDUSTRIAL ESTATE CHURCH ROAD ROMFORD HAROLD WOOD Edge of Town Residential Zone	Total Gross floor area: 13000 sqm <i>Survey date: TUESDAY 07/10/14</i>	<i>Survey Type: MANUAL</i> HAVERING

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 SURVEYS

Site Ref	Survey Date	Reason for Deselection
BK-02-D-01	08/09/20	Covid

## TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

## 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	2	7340	0.095	2	7340	0.007	2	7340	0.102
06:00 - 07:00	2	7340	0.429	2	7340	0.163	2	7340	0.592
07:00 - 08:00	6	7902	0.683	6	7902	0.392	6	7902	1.075
08:00 - 09:00	6	7902	0.972	6	7902	0.534	6	7902	1.506
09:00 - 10:00	6	7902	0.884	6	7902	0.645	6	7902	1.529
10:00 - 11:00	6	7902	0.882	6	7902	0.793	6	7902	1.675
11:00 - 12:00	6	7902	0.810	6	7902	0.905	6	7902	1.715
12:00 - 13:00	6	7902	0.730	6	7902	0.783	6	7902	1.513
13:00 - 14:00	6	7902	0.700	6	7902	0.700	6	7902	1.400
14:00 - 15:00	6	7902	0.662	6	7902	0.721	6	7902	1.383
15:00 - 16:00	6	7902	0.607	6	7902	0.704	6	7902	1.311
16:00 - 17:00	6	7902	0.475	6	7902	0.669	6	7902	1.144
17:00 - 18:00	6	7902	0.278	6	7902	0.681	6	7902	0.959
18:00 - 19:00	6	7902	0.232	6	7902	0.369	6	7902	0.601
19:00 - 20:00	3	5993	0.156	3	5993	0.217	3	5993	0.373
20:00 - 21:00	2	5805	0.009	2	5805	0.078	2	5805	0.087
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		8.604			8.361				16.965

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

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

#### Parameter summary

Trip rate parameter range selected:	3300 - 13850 (units: sqm)
Survey date date range:	01/01/14 - 06/06/22
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE  
OGVSCalculation 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	2	7340	0.014	2	7340	0.000	2	7340	0.014
06:00 - 07:00	2	7340	0.034	2	7340	0.014	2	7340	0.048
07:00 - 08:00	6	7902	0.034	6	7902	0.044	6	7902	0.078
08:00 - 09:00	6	7902	0.055	6	7902	0.049	6	7902	0.104
09:00 - 10:00	6	7902	0.049	6	7902	0.049	6	7902	0.098
10:00 - 11:00	6	7902	0.059	6	7902	0.055	6	7902	0.114
11:00 - 12:00	6	7902	0.051	6	7902	0.061	6	7902	0.112
12:00 - 13:00	6	7902	0.030	6	7902	0.030	6	7902	0.060
13:00 - 14:00	6	7902	0.057	6	7902	0.059	6	7902	0.116
14:00 - 15:00	6	7902	0.042	6	7902	0.030	6	7902	0.072
15:00 - 16:00	6	7902	0.036	6	7902	0.036	6	7902	0.072
16:00 - 17:00	6	7902	0.030	6	7902	0.038	6	7902	0.068
17:00 - 18:00	6	7902	0.011	6	7902	0.008	6	7902	0.019
18:00 - 19:00	6	7902	0.002	6	7902	0.004	6	7902	0.006
19:00 - 20:00	3	5993	0.011	3	5993	0.011	3	5993	0.022
20:00 - 21:00	2	5805	0.000	2	5805	0.000	2	5805	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.515			0.488				1.003

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 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE  
CARSCalculation 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	2	7340	0.068	2	7340	0.007	2	7340	0.075
06:00 - 07:00	2	7340	0.232	2	7340	0.082	2	7340	0.314
07:00 - 08:00	6	7902	0.373	6	7902	0.103	6	7902	0.476
08:00 - 09:00	6	7902	0.576	6	7902	0.194	6	7902	0.770
09:00 - 10:00	6	7902	0.559	6	7902	0.337	6	7902	0.896
10:00 - 11:00	6	7902	0.458	6	7902	0.375	6	7902	0.833
11:00 - 12:00	6	7902	0.407	6	7902	0.428	6	7902	0.835
12:00 - 13:00	6	7902	0.382	6	7902	0.426	6	7902	0.808
13:00 - 14:00	6	7902	0.367	6	7902	0.394	6	7902	0.761
14:00 - 15:00	6	7902	0.342	6	7902	0.378	6	7902	0.720
15:00 - 16:00	6	7902	0.321	6	7902	0.407	6	7902	0.728
16:00 - 17:00	6	7902	0.278	6	7902	0.441	6	7902	0.719
17:00 - 18:00	6	7902	0.184	6	7902	0.527	6	7902	0.711
18:00 - 19:00	6	7902	0.148	6	7902	0.264	6	7902	0.412
19:00 - 20:00	3	5993	0.117	3	5993	0.167	3	5993	0.284
20:00 - 21:00	2	5805	0.009	2	5805	0.060	2	5805	0.069
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		4.821			4.590				9.411

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 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE  
LGVSCalculation 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	2	7340	0.014	2	7340	0.000	2	7340	0.014
06:00 - 07:00	2	7340	0.163	2	7340	0.068	2	7340	0.231
07:00 - 08:00	6	7902	0.266	6	7902	0.240	6	7902	0.506
08:00 - 09:00	6	7902	0.333	6	7902	0.289	6	7902	0.622
09:00 - 10:00	6	7902	0.270	6	7902	0.253	6	7902	0.523
10:00 - 11:00	6	7902	0.361	6	7902	0.363	6	7902	0.724
11:00 - 12:00	6	7902	0.344	6	7902	0.407	6	7902	0.751
12:00 - 13:00	6	7902	0.314	6	7902	0.321	6	7902	0.635
13:00 - 14:00	6	7902	0.264	6	7902	0.240	6	7902	0.504
14:00 - 15:00	6	7902	0.272	6	7902	0.306	6	7902	0.578
15:00 - 16:00	6	7902	0.236	6	7902	0.249	6	7902	0.485
16:00 - 17:00	6	7902	0.162	6	7902	0.173	6	7902	0.335
17:00 - 18:00	6	7902	0.082	6	7902	0.139	6	7902	0.221
18:00 - 19:00	6	7902	0.082	6	7902	0.099	6	7902	0.181
19:00 - 20:00	3	5993	0.028	3	5993	0.039	3	5993	0.067
20:00 - 21:00	2	5805	0.000	2	5805	0.017	2	5805	0.017
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		3.191			3.203				6.394

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-152301-220621-0646

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON	
BE	BEXLEY	1 days
HD	HILLINGDON	1 days
HO	HOUNSLOW	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: 8673 to 20400 (units: sqm)  
Range Selected by User: 8673 to 20400 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 27/09/18

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

Selected survey days:

Wednesday	1 days
Thursday	2 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Industrial Zone	3
-----------------	---

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

Secondary Filtering selection:

Use Class:  
n/a 1 days  
B8 2 days

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

Secondary Filtering selection (Cont.):

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

20,001 to 25,000	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:

250,001 to 500,000	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	2 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.

Travel Plan:

Yes	2 days
No	1 days

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

PTAL Rating:

1a (Low) Very poor	1 days
1b Very poor	1 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1	BE-02-F-01 THAMES ROAD CRAYFORD	FRESH FRUIT DISTRIBUTOR  Edge of Town Industrial Zone Total Gross floor area: <i>Survey date: THURSDAY</i>	20400 sqm <i>20/09/18</i>	BEXLEY  <i>Survey Type: MANUAL</i>
2	HD-02-F-01 NINE ACRES CLOSE HAYES	FOOD DISTRIBUTOR  Edge of Town Industrial Zone Total Gross floor area: <i>Survey date: THURSDAY</i>	8673 sqm <i>27/09/18</i>	HILLINGDON  <i>Survey Type: MANUAL</i>
3	HO-02-F-01 ASCOT ROAD FELTHAM	LOGISTICS AND FREIGHT  Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: <i>Survey date: WEDNESDAY</i>	13500 sqm <i>23/11/16</i>	HOUNSLOW  <i>Survey Type: MANUAL</i>

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

## TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

## MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.45

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.063	3	14191	0.047	3	14191	0.110
07:30 - 08:00	3	14191	0.195	3	14191	0.047	3	14191	0.242
08:00 - 08:30	3	14191	0.155	3	14191	0.045	3	14191	0.200
08:30 - 09:00	3	14191	0.251	3	14191	0.056	3	14191	0.307
09:00 - 09:30	3	14191	0.136	3	14191	0.049	3	14191	0.185
09:30 - 10:00	3	14191	0.073	3	14191	0.066	3	14191	0.139
10:00 - 10:30	3	14191	0.045	3	14191	0.033	3	14191	0.078
10:30 - 11:00	3	14191	0.092	3	14191	0.103	3	14191	0.195
11:00 - 11:30	3	14191	0.063	3	14191	0.096	3	14191	0.159
11:30 - 12:00	3	14191	0.110	3	14191	0.089	3	14191	0.199
12:00 - 12:30	3	14191	0.078	3	14191	0.160	3	14191	0.238
12:30 - 13:00	3	14191	0.110	3	14191	0.094	3	14191	0.204
13:00 - 13:30	3	14191	0.139	3	14191	0.103	3	14191	0.242
13:30 - 14:00	3	14191	0.099	3	14191	0.089	3	14191	0.188
14:00 - 14:30	3	14191	0.087	3	14191	0.082	3	14191	0.169
14:30 - 15:00	3	14191	0.052	3	14191	0.073	3	14191	0.125
15:00 - 15:30	3	14191	0.068	3	14191	0.092	3	14191	0.160
15:30 - 16:00	3	14191	0.075	3	14191	0.078	3	14191	0.153
16:00 - 16:30	3	14191	0.073	3	14191	0.106	3	14191	0.179
16:30 - 17:00	3	14191	0.075	3	14191	0.108	3	14191	0.183
17:00 - 17:30	3	14191	0.052	3	14191	0.204	3	14191	0.256
17:30 - 18:00	3	14191	0.113	3	14191	0.254	3	14191	0.367
18:00 - 18:30	3	14191	0.070	3	14191	0.150	3	14191	0.220
18:30 - 19:00	3	14191	0.096	3	14191	0.096	3	14191	0.192
19:00 - 19:30	1	20400	0.025	1	20400	0.181	1	20400	0.206
19:30 - 20:00	1	20400	0.020	1	20400	0.049	1	20400	0.069
20:00 - 20:30	1	20400	0.010	1	20400	0.025	1	20400	0.035
20:30 - 21:00	1	20400	0.010	1	20400	0.005	1	20400	0.015
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		2.435			2.580			5.015	

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

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

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

#### Parameter summary

Trip rate parameter range selected:	8673 - 20400 (units: sqm)
Survey date date range:	01/01/14 - 27/09/18
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

## TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

## MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
07:30 - 08:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:00 - 08:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:30 - 09:00	3	14191	0.005	3	14191	0.005	3	14191	0.010
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:30 - 11:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:00 - 11:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:30 - 12:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:00 - 12:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:30 - 13:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
13:00 - 13:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
13:30 - 14:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:00 - 14:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:30 - 15:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:00 - 15:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:30 - 16:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:00 - 16:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:30 - 17:00	3	14191	0.002	3	14191	0.002	3	14191	0.004
17:00 - 17:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
17:30 - 18:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:00 - 18:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:30 - 19:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.007			0.007			0.014	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.012	3	14191	0.021	3	14191	0.033
07:30 - 08:00	3	14191	0.028	3	14191	0.026	3	14191	0.054
08:00 - 08:30	3	14191	0.005	3	14191	0.016	3	14191	0.021
08:30 - 09:00	3	14191	0.026	3	14191	0.021	3	14191	0.047
09:00 - 09:30	3	14191	0.028	3	14191	0.023	3	14191	0.051
09:30 - 10:00	3	14191	0.021	3	14191	0.021	3	14191	0.042
10:00 - 10:30	3	14191	0.007	3	14191	0.012	3	14191	0.019
10:30 - 11:00	3	14191	0.028	3	14191	0.038	3	14191	0.066
11:00 - 11:30	3	14191	0.016	3	14191	0.023	3	14191	0.039
11:30 - 12:00	3	14191	0.026	3	14191	0.009	3	14191	0.035
12:00 - 12:30	3	14191	0.023	3	14191	0.026	3	14191	0.049
12:30 - 13:00	3	14191	0.021	3	14191	0.023	3	14191	0.044
13:00 - 13:30	3	14191	0.033	3	14191	0.026	3	14191	0.059
13:30 - 14:00	3	14191	0.019	3	14191	0.023	3	14191	0.042
14:00 - 14:30	3	14191	0.026	3	14191	0.016	3	14191	0.042
14:30 - 15:00	3	14191	0.019	3	14191	0.016	3	14191	0.035
15:00 - 15:30	3	14191	0.016	3	14191	0.019	3	14191	0.035
15:30 - 16:00	3	14191	0.021	3	14191	0.021	3	14191	0.042
16:00 - 16:30	3	14191	0.019	3	14191	0.016	3	14191	0.035
16:30 - 17:00	3	14191	0.019	3	14191	0.012	3	14191	0.031
17:00 - 17:30	3	14191	0.016	3	14191	0.021	3	14191	0.037
17:30 - 18:00	3	14191	0.014	3	14191	0.016	3	14191	0.030
18:00 - 18:30	3	14191	0.012	3	14191	0.009	3	14191	0.021
18:30 - 19:00	3	14191	0.016	3	14191	0.009	3	14191	0.025
19:00 - 19:30	1	20400	0.015	1	20400	0.015	1	20400	0.030
19:30 - 20:00	1	20400	0.005	1	20400	0.020	1	20400	0.025
20:00 - 20:30	1	20400	0.010	1	20400	0.005	1	20400	0.015
20:30 - 21:00	1	20400	0.010	1	20400	0.000	1	20400	0.010
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.511			0.503			1.014	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
07:30 - 08:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:00 - 08:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:30 - 09:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:30 - 11:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:00 - 11:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:30 - 12:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:00 - 12:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
12:30 - 13:00	3	14191	0.002	3	14191	0.002	3	14191	0.004
13:00 - 13:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
13:30 - 14:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:00 - 14:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
14:30 - 15:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:00 - 15:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
15:30 - 16:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:00 - 16:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:30 - 17:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
17:00 - 17:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
17:30 - 18:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
18:00 - 18:30	3	14191	0.000	3	14191	0.002	3	14191	0.002
18:30 - 19:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.015				0.014			0.029

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
07:30 - 08:00	3	14191	0.005	3	14191	0.000	3	14191	0.005
08:00 - 08:30	3	14191	0.005	3	14191	0.000	3	14191	0.005
08:30 - 09:00	3	14191	0.005	3	14191	0.000	3	14191	0.005
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:30 - 11:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:00 - 11:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:30 - 12:00	3	14191	0.005	3	14191	0.000	3	14191	0.005
12:00 - 12:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:30 - 13:00	3	14191	0.002	3	14191	0.000	3	14191	0.002
13:00 - 13:30	3	14191	0.000	3	14191	0.002	3	14191	0.002
13:30 - 14:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
14:00 - 14:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
14:30 - 15:00	3	14191	0.007	3	14191	0.000	3	14191	0.007
15:00 - 15:30	3	14191	0.000	3	14191	0.002	3	14191	0.002
15:30 - 16:00	3	14191	0.000	3	14191	0.005	3	14191	0.005
16:00 - 16:30	3	14191	0.000	3	14191	0.014	3	14191	0.014
16:30 - 17:00	3	14191	0.014	3	14191	0.012	3	14191	0.026
17:00 - 17:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
17:30 - 18:00	3	14191	0.002	3	14191	0.009	3	14191	0.011
18:00 - 18:30	3	14191	0.005	3	14191	0.005	3	14191	0.010
18:30 - 19:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.005	1	20400	0.005
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.066			0.062			0.128	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

## MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.075	3	14191	0.054	3	14191	0.129
07:30 - 08:00	3	14191	0.225	3	14191	0.049	3	14191	0.274
08:00 - 08:30	3	14191	0.179	3	14191	0.049	3	14191	0.228
08:30 - 09:00	3	14191	0.298	3	14191	0.061	3	14191	0.359
09:00 - 09:30	3	14191	0.146	3	14191	0.059	3	14191	0.205
09:30 - 10:00	3	14191	0.089	3	14191	0.070	3	14191	0.159
10:00 - 10:30	3	14191	0.054	3	14191	0.035	3	14191	0.089
10:30 - 11:00	3	14191	0.103	3	14191	0.127	3	14191	0.230
11:00 - 11:30	3	14191	0.080	3	14191	0.108	3	14191	0.188
11:30 - 12:00	3	14191	0.120	3	14191	0.099	3	14191	0.219
12:00 - 12:30	3	14191	0.092	3	14191	0.188	3	14191	0.280
12:30 - 13:00	3	14191	0.132	3	14191	0.115	3	14191	0.247
13:00 - 13:30	3	14191	0.169	3	14191	0.113	3	14191	0.282
13:30 - 14:00	3	14191	0.117	3	14191	0.103	3	14191	0.220
14:00 - 14:30	3	14191	0.113	3	14191	0.092	3	14191	0.205
14:30 - 15:00	3	14191	0.059	3	14191	0.080	3	14191	0.139
15:00 - 15:30	3	14191	0.080	3	14191	0.115	3	14191	0.195
15:30 - 16:00	3	14191	0.082	3	14191	0.087	3	14191	0.169
16:00 - 16:30	3	14191	0.080	3	14191	0.124	3	14191	0.204
16:30 - 17:00	3	14191	0.078	3	14191	0.134	3	14191	0.212
17:00 - 17:30	3	14191	0.068	3	14191	0.240	3	14191	0.308
17:30 - 18:00	3	14191	0.120	3	14191	0.291	3	14191	0.411
18:00 - 18:30	3	14191	0.078	3	14191	0.181	3	14191	0.259
18:30 - 19:00	3	14191	0.110	3	14191	0.108	3	14191	0.218
19:00 - 19:30	1	20400	0.029	1	20400	0.216	1	20400	0.245
19:30 - 20:00	1	20400	0.029	1	20400	0.059	1	20400	0.088
20:00 - 20:30	1	20400	0.010	1	20400	0.029	1	20400	0.039
20:30 - 21:00	1	20400	0.010	1	20400	0.005	1	20400	0.015
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		2.825			2.991			5.816	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

## MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
07:30 - 08:00	3	14191	0.028	3	14191	0.002	3	14191	0.030
08:00 - 08:30	3	14191	0.019	3	14191	0.007	3	14191	0.026
08:30 - 09:00	3	14191	0.019	3	14191	0.005	3	14191	0.024
09:00 - 09:30	3	14191	0.014	3	14191	0.002	3	14191	0.016
09:30 - 10:00	3	14191	0.016	3	14191	0.005	3	14191	0.021
10:00 - 10:30	3	14191	0.009	3	14191	0.002	3	14191	0.011
10:30 - 11:00	3	14191	0.016	3	14191	0.009	3	14191	0.025
11:00 - 11:30	3	14191	0.005	3	14191	0.012	3	14191	0.017
11:30 - 12:00	3	14191	0.007	3	14191	0.007	3	14191	0.014
12:00 - 12:30	3	14191	0.007	3	14191	0.033	3	14191	0.040
12:30 - 13:00	3	14191	0.021	3	14191	0.016	3	14191	0.037
13:00 - 13:30	3	14191	0.019	3	14191	0.012	3	14191	0.031
13:30 - 14:00	3	14191	0.007	3	14191	0.021	3	14191	0.028
14:00 - 14:30	3	14191	0.007	3	14191	0.005	3	14191	0.012
14:30 - 15:00	3	14191	0.005	3	14191	0.005	3	14191	0.010
15:00 - 15:30	3	14191	0.005	3	14191	0.009	3	14191	0.014
15:30 - 16:00	3	14191	0.005	3	14191	0.005	3	14191	0.010
16:00 - 16:30	3	14191	0.007	3	14191	0.014	3	14191	0.021
16:30 - 17:00	3	14191	0.012	3	14191	0.007	3	14191	0.019
17:00 - 17:30	3	14191	0.002	3	14191	0.023	3	14191	0.025
17:30 - 18:00	3	14191	0.012	3	14191	0.023	3	14191	0.035
18:00 - 18:30	3	14191	0.002	3	14191	0.005	3	14191	0.007
18:30 - 19:00	3	14191	0.002	3	14191	0.005	3	14191	0.007
19:00 - 19:30	1	20400	0.000	1	20400	0.010	1	20400	0.010
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.010	1	20400	0.010
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.248			0.256			0.504	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)  
 MULTI-MODAL BUS/TRAM PASSENGERS  
 Calculation factor: 100 sqm  
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.009	3	14191	0.000	3	14191	0.009
07:30 - 08:00	3	14191	0.023	3	14191	0.000	3	14191	0.023
08:00 - 08:30	3	14191	0.033	3	14191	0.000	3	14191	0.033
08:30 - 09:00	3	14191	0.035	3	14191	0.005	3	14191	0.040
09:00 - 09:30	3	14191	0.012	3	14191	0.000	3	14191	0.012
09:30 - 10:00	3	14191	0.002	3	14191	0.002	3	14191	0.004
10:00 - 10:30	3	14191	0.002	3	14191	0.005	3	14191	0.007
10:30 - 11:00	3	14191	0.012	3	14191	0.002	3	14191	0.014
11:00 - 11:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
11:30 - 12:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
12:00 - 12:30	3	14191	0.007	3	14191	0.007	3	14191	0.014
12:30 - 13:00	3	14191	0.019	3	14191	0.012	3	14191	0.031
13:00 - 13:30	3	14191	0.019	3	14191	0.012	3	14191	0.031
13:30 - 14:00	3	14191	0.007	3	14191	0.019	3	14191	0.026
14:00 - 14:30	3	14191	0.005	3	14191	0.009	3	14191	0.014
14:30 - 15:00	3	14191	0.005	3	14191	0.009	3	14191	0.014
15:00 - 15:30	3	14191	0.000	3	14191	0.005	3	14191	0.005
15:30 - 16:00	3	14191	0.002	3	14191	0.012	3	14191	0.014
16:00 - 16:30	3	14191	0.009	3	14191	0.021	3	14191	0.030
16:30 - 17:00	3	14191	0.016	3	14191	0.038	3	14191	0.054
17:00 - 17:30	3	14191	0.009	3	14191	0.042	3	14191	0.051
17:30 - 18:00	3	14191	0.009	3	14191	0.019	3	14191	0.028
18:00 - 18:30	3	14191	0.005	3	14191	0.007	3	14191	0.012
18:30 - 19:00	3	14191	0.000	3	14191	0.007	3	14191	0.007
19:00 - 19:30	1	20400	0.000	1	20400	0.010	1	20400	0.010
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.247			0.245				0.492

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
07:30 - 08:00	3	14191	0.005	3	14191	0.000	3	14191	0.005
08:00 - 08:30	3	14191	0.007	3	14191	0.000	3	14191	0.007
08:30 - 09:00	3	14191	0.016	3	14191	0.000	3	14191	0.016
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
10:30 - 11:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
11:00 - 11:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:30 - 12:00	3	14191	0.009	3	14191	0.000	3	14191	0.009
12:00 - 12:30	3	14191	0.002	3	14191	0.007	3	14191	0.009
12:30 - 13:00	3	14191	0.002	3	14191	0.000	3	14191	0.002
13:00 - 13:30	3	14191	0.000	3	14191	0.005	3	14191	0.005
13:30 - 14:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
14:00 - 14:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:30 - 15:00	3	14191	0.002	3	14191	0.009	3	14191	0.011
15:00 - 15:30	3	14191	0.000	3	14191	0.002	3	14191	0.002
15:30 - 16:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:00 - 16:30	3	14191	0.000	3	14191	0.007	3	14191	0.007
16:30 - 17:00	3	14191	0.000	3	14191	0.002	3	14191	0.002
17:00 - 17:30	3	14191	0.002	3	14191	0.009	3	14191	0.011
17:30 - 18:00	3	14191	0.005	3	14191	0.009	3	14191	0.014
18:00 - 18:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:30 - 19:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.062			0.054			0.116	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
07:30 - 08:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:00 - 08:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:30 - 09:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:30 - 11:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:00 - 11:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:30 - 12:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:00 - 12:30	3	14191	0.023	3	14191	0.021	3	14191	0.044
12:30 - 13:00	3	14191	0.009	3	14191	0.014	3	14191	0.023
13:00 - 13:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
13:30 - 14:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:00 - 14:30	3	14191	0.012	3	14191	0.023	3	14191	0.035
14:30 - 15:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:00 - 15:30	3	14191	0.009	3	14191	0.012	3	14191	0.021
15:30 - 16:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:00 - 16:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:30 - 17:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
17:00 - 17:30	3	14191	0.014	3	14191	0.007	3	14191	0.021
17:30 - 18:00	3	14191	0.012	3	14191	0.005	3	14191	0.017
18:00 - 18:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:30 - 19:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.079			0.082			0.161	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)  
 MULTI-MODAL PUBLIC TRANSPORT USERS  
 Calculation factor: 100 sqm  
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.009	3	14191	0.000	3	14191	0.009
07:30 - 08:00	3	14191	0.028	3	14191	0.000	3	14191	0.028
08:00 - 08:30	3	14191	0.040	3	14191	0.000	3	14191	0.040
08:30 - 09:00	3	14191	0.052	3	14191	0.005	3	14191	0.057
09:00 - 09:30	3	14191	0.012	3	14191	0.000	3	14191	0.012
09:30 - 10:00	3	14191	0.002	3	14191	0.002	3	14191	0.004
10:00 - 10:30	3	14191	0.005	3	14191	0.005	3	14191	0.010
10:30 - 11:00	3	14191	0.016	3	14191	0.005	3	14191	0.021
11:00 - 11:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
11:30 - 12:00	3	14191	0.014	3	14191	0.002	3	14191	0.016
12:00 - 12:30	3	14191	0.033	3	14191	0.035	3	14191	0.068
12:30 - 13:00	3	14191	0.031	3	14191	0.026	3	14191	0.057
13:00 - 13:30	3	14191	0.019	3	14191	0.016	3	14191	0.035
13:30 - 14:00	3	14191	0.012	3	14191	0.021	3	14191	0.033
14:00 - 14:30	3	14191	0.016	3	14191	0.033	3	14191	0.049
14:30 - 15:00	3	14191	0.007	3	14191	0.019	3	14191	0.026
15:00 - 15:30	3	14191	0.009	3	14191	0.019	3	14191	0.028
15:30 - 16:00	3	14191	0.002	3	14191	0.012	3	14191	0.014
16:00 - 16:30	3	14191	0.009	3	14191	0.028	3	14191	0.037
16:30 - 17:00	3	14191	0.016	3	14191	0.040	3	14191	0.056
17:00 - 17:30	3	14191	0.026	3	14191	0.059	3	14191	0.085
17:30 - 18:00	3	14191	0.026	3	14191	0.033	3	14191	0.059
18:00 - 18:30	3	14191	0.005	3	14191	0.007	3	14191	0.012
18:30 - 19:00	3	14191	0.000	3	14191	0.007	3	14191	0.007
19:00 - 19:30	1	20400	0.000	1	20400	0.010	1	20400	0.010
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.391			0.384			0.775	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

## MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.45

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.089	3	14191	0.059	3	14191	0.148
07:30 - 08:00	3	14191	0.287	3	14191	0.052	3	14191	0.339
08:00 - 08:30	3	14191	0.242	3	14191	0.056	3	14191	0.298
08:30 - 09:00	3	14191	0.373	3	14191	0.070	3	14191	0.443
09:00 - 09:30	3	14191	0.171	3	14191	0.061	3	14191	0.232
09:30 - 10:00	3	14191	0.108	3	14191	0.078	3	14191	0.186
10:00 - 10:30	3	14191	0.068	3	14191	0.042	3	14191	0.110
10:30 - 11:00	3	14191	0.136	3	14191	0.141	3	14191	0.277
11:00 - 11:30	3	14191	0.087	3	14191	0.120	3	14191	0.207
11:30 - 12:00	3	14191	0.146	3	14191	0.108	3	14191	0.254
12:00 - 12:30	3	14191	0.132	3	14191	0.256	3	14191	0.388
12:30 - 13:00	3	14191	0.186	3	14191	0.157	3	14191	0.343
13:00 - 13:30	3	14191	0.207	3	14191	0.143	3	14191	0.350
13:30 - 14:00	3	14191	0.141	3	14191	0.148	3	14191	0.289
14:00 - 14:30	3	14191	0.139	3	14191	0.129	3	14191	0.268
14:30 - 15:00	3	14191	0.078	3	14191	0.103	3	14191	0.181
15:00 - 15:30	3	14191	0.094	3	14191	0.146	3	14191	0.240
15:30 - 16:00	3	14191	0.089	3	14191	0.108	3	14191	0.197
16:00 - 16:30	3	14191	0.096	3	14191	0.181	3	14191	0.277
16:30 - 17:00	3	14191	0.120	3	14191	0.193	3	14191	0.313
17:00 - 17:30	3	14191	0.099	3	14191	0.324	3	14191	0.423
17:30 - 18:00	3	14191	0.160	3	14191	0.357	3	14191	0.517
18:00 - 18:30	3	14191	0.089	3	14191	0.197	3	14191	0.286
18:30 - 19:00	3	14191	0.117	3	14191	0.122	3	14191	0.239
19:00 - 19:30	1	20400	0.029	1	20400	0.235	1	20400	0.264
19:30 - 20:00	1	20400	0.029	1	20400	0.059	1	20400	0.088
20:00 - 20:30	1	20400	0.010	1	20400	0.044	1	20400	0.054
20:30 - 21:00	1	20400	0.010	1	20400	0.005	1	20400	0.015
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		3.532			3.694			7.226	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.042	3	14191	0.021	3	14191	0.063
07:30 - 08:00	3	14191	0.155	3	14191	0.012	3	14191	0.167
08:00 - 08:30	3	14191	0.134	3	14191	0.023	3	14191	0.157
08:30 - 09:00	3	14191	0.197	3	14191	0.014	3	14191	0.211
09:00 - 09:30	3	14191	0.068	3	14191	0.012	3	14191	0.080
09:30 - 10:00	3	14191	0.038	3	14191	0.019	3	14191	0.057
10:00 - 10:30	3	14191	0.014	3	14191	0.005	3	14191	0.019
10:30 - 11:00	3	14191	0.028	3	14191	0.028	3	14191	0.056
11:00 - 11:30	3	14191	0.014	3	14191	0.040	3	14191	0.054
11:30 - 12:00	3	14191	0.049	3	14191	0.042	3	14191	0.091
12:00 - 12:30	3	14191	0.016	3	14191	0.096	3	14191	0.112
12:30 - 13:00	3	14191	0.054	3	14191	0.047	3	14191	0.101
13:00 - 13:30	3	14191	0.087	3	14191	0.056	3	14191	0.143
13:30 - 14:00	3	14191	0.061	3	14191	0.049	3	14191	0.110
14:00 - 14:30	3	14191	0.052	3	14191	0.042	3	14191	0.094
14:30 - 15:00	3	14191	0.019	3	14191	0.038	3	14191	0.057
15:00 - 15:30	3	14191	0.014	3	14191	0.042	3	14191	0.056
15:30 - 16:00	3	14191	0.026	3	14191	0.026	3	14191	0.052
16:00 - 16:30	3	14191	0.042	3	14191	0.063	3	14191	0.105
16:30 - 17:00	3	14191	0.026	3	14191	0.080	3	14191	0.106
17:00 - 17:30	3	14191	0.021	3	14191	0.150	3	14191	0.171
17:30 - 18:00	3	14191	0.075	3	14191	0.223	3	14191	0.298
18:00 - 18:30	3	14191	0.040	3	14191	0.115	3	14191	0.155
18:30 - 19:00	3	14191	0.066	3	14191	0.070	3	14191	0.136
19:00 - 19:30	1	20400	0.010	1	20400	0.157	1	20400	0.167
19:30 - 20:00	1	20400	0.010	1	20400	0.025	1	20400	0.035
20:00 - 20:30	1	20400	0.000	1	20400	0.020	1	20400	0.020
20:30 - 21:00	1	20400	0.000	1	20400	0.005	1	20400	0.005
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		1.358			1.520				2.878

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.007	3	14191	0.005	3	14191	0.012
07:30 - 08:00	3	14191	0.012	3	14191	0.009	3	14191	0.021
08:00 - 08:30	3	14191	0.016	3	14191	0.005	3	14191	0.021
08:30 - 09:00	3	14191	0.021	3	14191	0.016	3	14191	0.037
09:00 - 09:30	3	14191	0.040	3	14191	0.014	3	14191	0.054
09:30 - 10:00	3	14191	0.014	3	14191	0.026	3	14191	0.040
10:00 - 10:30	3	14191	0.023	3	14191	0.016	3	14191	0.039
10:30 - 11:00	3	14191	0.035	3	14191	0.038	3	14191	0.073
11:00 - 11:30	3	14191	0.031	3	14191	0.031	3	14191	0.062
11:30 - 12:00	3	14191	0.035	3	14191	0.038	3	14191	0.073
12:00 - 12:30	3	14191	0.033	3	14191	0.035	3	14191	0.068
12:30 - 13:00	3	14191	0.031	3	14191	0.021	3	14191	0.052
13:00 - 13:30	3	14191	0.019	3	14191	0.019	3	14191	0.038
13:30 - 14:00	3	14191	0.014	3	14191	0.016	3	14191	0.030
14:00 - 14:30	3	14191	0.007	3	14191	0.019	3	14191	0.026
14:30 - 15:00	3	14191	0.014	3	14191	0.019	3	14191	0.033
15:00 - 15:30	3	14191	0.026	3	14191	0.023	3	14191	0.049
15:30 - 16:00	3	14191	0.028	3	14191	0.028	3	14191	0.056
16:00 - 16:30	3	14191	0.009	3	14191	0.021	3	14191	0.030
16:30 - 17:00	3	14191	0.021	3	14191	0.014	3	14191	0.035
17:00 - 17:30	3	14191	0.009	3	14191	0.026	3	14191	0.035
17:30 - 18:00	3	14191	0.019	3	14191	0.007	3	14191	0.026
18:00 - 18:30	3	14191	0.016	3	14191	0.021	3	14191	0.037
18:30 - 19:00	3	14191	0.014	3	14191	0.016	3	14191	0.030
19:00 - 19:30	1	20400	0.000	1	20400	0.010	1	20400	0.010
19:30 - 20:00	1	20400	0.005	1	20400	0.005	1	20400	0.010
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.499			0.498				0.997

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL MOTOR CYCLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
07:30 - 08:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:00 - 08:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:30 - 09:00	3	14191	0.002	3	14191	0.000	3	14191	0.002
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:30 - 11:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:00 - 11:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
11:30 - 12:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:00 - 12:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
12:30 - 13:00	3	14191	0.002	3	14191	0.000	3	14191	0.002
13:00 - 13:30	3	14191	0.000	3	14191	0.002	3	14191	0.002
13:30 - 14:00	3	14191	0.005	3	14191	0.000	3	14191	0.005
14:00 - 14:30	3	14191	0.000	3	14191	0.002	3	14191	0.002
14:30 - 15:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:00 - 15:30	3	14191	0.009	3	14191	0.005	3	14191	0.014
15:30 - 16:00	3	14191	0.000	3	14191	0.002	3	14191	0.002
16:00 - 16:30	3	14191	0.002	3	14191	0.005	3	14191	0.007
16:30 - 17:00	3	14191	0.007	3	14191	0.000	3	14191	0.007
17:00 - 17:30	3	14191	0.002	3	14191	0.005	3	14191	0.007
17:30 - 18:00	3	14191	0.000	3	14191	0.005	3	14191	0.005
18:00 - 18:30	3	14191	0.002	3	14191	0.002	3	14191	0.004
18:30 - 19:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.037			0.030			0.067	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Underground Passengers

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
07:30 - 08:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:00 - 08:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
08:30 - 09:00	3	14191	0.002	3	14191	0.000	3	14191	0.002
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:30 - 11:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:00 - 11:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:30 - 12:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:00 - 12:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:30 - 13:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
13:00 - 13:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
13:30 - 14:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:00 - 14:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:30 - 15:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:00 - 15:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:30 - 16:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:00 - 16:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:30 - 17:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
17:00 - 17:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
17:30 - 18:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:00 - 18:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:30 - 19:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.004			0.000			0.004	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Overground Passengers

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
07:30 - 08:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:00 - 08:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
08:30 - 09:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:30 - 11:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:00 - 11:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:30 - 12:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
12:00 - 12:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
12:30 - 13:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
13:00 - 13:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
13:30 - 14:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:00 - 14:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:30 - 15:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:00 - 15:30	3	14191	0.000	3	14191	0.002	3	14191	0.002
15:30 - 16:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:00 - 16:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:30 - 17:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
17:00 - 17:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
17:30 - 18:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:00 - 18:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:30 - 19:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.002			0.002			0.004	

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL National Rail Passengers

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
07:30 - 08:00	3	14191	0.005	3	14191	0.000	3	14191	0.005
08:00 - 08:30	3	14191	0.005	3	14191	0.000	3	14191	0.005
08:30 - 09:00	3	14191	0.014	3	14191	0.000	3	14191	0.014
09:00 - 09:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
09:30 - 10:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
10:00 - 10:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
10:30 - 11:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
11:00 - 11:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
11:30 - 12:00	3	14191	0.009	3	14191	0.000	3	14191	0.009
12:00 - 12:30	3	14191	0.000	3	14191	0.007	3	14191	0.007
12:30 - 13:00	3	14191	0.002	3	14191	0.000	3	14191	0.002
13:00 - 13:30	3	14191	0.000	3	14191	0.005	3	14191	0.005
13:30 - 14:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
14:00 - 14:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
14:30 - 15:00	3	14191	0.002	3	14191	0.009	3	14191	0.011
15:00 - 15:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
15:30 - 16:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
16:00 - 16:30	3	14191	0.000	3	14191	0.007	3	14191	0.007
16:30 - 17:00	3	14191	0.000	3	14191	0.002	3	14191	0.002
17:00 - 17:30	3	14191	0.002	3	14191	0.009	3	14191	0.011
17:30 - 18:00	3	14191	0.005	3	14191	0.009	3	14191	0.014
18:00 - 18:30	3	14191	0.000	3	14191	0.000	3	14191	0.000
18:30 - 19:00	3	14191	0.000	3	14191	0.000	3	14191	0.000
19:00 - 19:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.056			0.052			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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Bus Passengers

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.009	3	14191	0.000	3	14191	0.009
07:30 - 08:00	3	14191	0.023	3	14191	0.000	3	14191	0.023
08:00 - 08:30	3	14191	0.033	3	14191	0.000	3	14191	0.033
08:30 - 09:00	3	14191	0.035	3	14191	0.005	3	14191	0.040
09:00 - 09:30	3	14191	0.012	3	14191	0.000	3	14191	0.012
09:30 - 10:00	3	14191	0.002	3	14191	0.002	3	14191	0.004
10:00 - 10:30	3	14191	0.002	3	14191	0.005	3	14191	0.007
10:30 - 11:00	3	14191	0.012	3	14191	0.002	3	14191	0.014
11:00 - 11:30	3	14191	0.002	3	14191	0.000	3	14191	0.002
11:30 - 12:00	3	14191	0.005	3	14191	0.002	3	14191	0.007
12:00 - 12:30	3	14191	0.007	3	14191	0.007	3	14191	0.014
12:30 - 13:00	3	14191	0.019	3	14191	0.012	3	14191	0.031
13:00 - 13:30	3	14191	0.019	3	14191	0.012	3	14191	0.031
13:30 - 14:00	3	14191	0.007	3	14191	0.019	3	14191	0.026
14:00 - 14:30	3	14191	0.005	3	14191	0.009	3	14191	0.014
14:30 - 15:00	3	14191	0.005	3	14191	0.009	3	14191	0.014
15:00 - 15:30	3	14191	0.000	3	14191	0.005	3	14191	0.005
15:30 - 16:00	3	14191	0.002	3	14191	0.012	3	14191	0.014
16:00 - 16:30	3	14191	0.009	3	14191	0.021	3	14191	0.030
16:30 - 17:00	3	14191	0.016	3	14191	0.038	3	14191	0.054
17:00 - 17:30	3	14191	0.009	3	14191	0.042	3	14191	0.051
17:30 - 18:00	3	14191	0.009	3	14191	0.019	3	14191	0.028
18:00 - 18:30	3	14191	0.005	3	14191	0.007	3	14191	0.012
18:30 - 19:00	3	14191	0.000	3	14191	0.007	3	14191	0.007
19:00 - 19:30	1	20400	0.000	1	20400	0.010	1	20400	0.010
19:30 - 20:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:00 - 20:30	1	20400	0.000	1	20400	0.000	1	20400	0.000
20:30 - 21:00	1	20400	0.000	1	20400	0.000	1	20400	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		0.247			0.245				0.492

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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Servicing Vehicles

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	3	14191	0.019	3	14191	0.026	3	14191	0.045
07:30 - 08:00	3	14191	0.042	3	14191	0.038	3	14191	0.080
08:00 - 08:30	3	14191	0.021	3	14191	0.021	3	14191	0.042
08:30 - 09:00	3	14191	0.042	3	14191	0.038	3	14191	0.080
09:00 - 09:30	3	14191	0.066	3	14191	0.038	3	14191	0.104
09:30 - 10:00	3	14191	0.035	3	14191	0.047	3	14191	0.082
10:00 - 10:30	3	14191	0.031	3	14191	0.028	3	14191	0.059
10:30 - 11:00	3	14191	0.061	3	14191	0.075	3	14191	0.136
11:00 - 11:30	3	14191	0.045	3	14191	0.054	3	14191	0.099
11:30 - 12:00	3	14191	0.066	3	14191	0.047	3	14191	0.113
12:00 - 12:30	3	14191	0.056	3	14191	0.063	3	14191	0.119
12:30 - 13:00	3	14191	0.052	3	14191	0.045	3	14191	0.097
13:00 - 13:30	3	14191	0.054	3	14191	0.047	3	14191	0.101
13:30 - 14:00	3	14191	0.033	3	14191	0.040	3	14191	0.073
14:00 - 14:30	3	14191	0.038	3	14191	0.038	3	14191	0.076
14:30 - 15:00	3	14191	0.031	3	14191	0.033	3	14191	0.064
15:00 - 15:30	3	14191	0.042	3	14191	0.040	3	14191	0.082
15:30 - 16:00	3	14191	0.049	3	14191	0.047	3	14191	0.096
16:00 - 16:30	3	14191	0.028	3	14191	0.038	3	14191	0.066
16:30 - 17:00	3	14191	0.040	3	14191	0.026	3	14191	0.066
17:00 - 17:30	3	14191	0.026	3	14191	0.045	3	14191	0.071
17:30 - 18:00	3	14191	0.033	3	14191	0.023	3	14191	0.056
18:00 - 18:30	3	14191	0.028	3	14191	0.031	3	14191	0.059
18:30 - 19:00	3	14191	0.026	3	14191	0.026	3	14191	0.052
19:00 - 19:30	1	20400	0.015	1	20400	0.025	1	20400	0.040
19:30 - 20:00	1	20400	0.010	1	20400	0.025	1	20400	0.035
20:00 - 20:30	1	20400	0.010	1	20400	0.005	1	20400	0.015
20:30 - 21:00	1	20400	0.010	1	20400	0.000	1	20400	0.010
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:		1.009			1.009			2.018	

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.

## Contact

### **London**

Network Building,  
97 Tottenham Court Road,  
London W1T 4TP.  
Tel: 020 7580 7373

### **Bristol**

5th Floor, 4 Colston Avenue,  
Bristol BS1 4ST  
Tel: 0117 203 5240

### **Cardiff**

Helmont House, Churchill Way,  
Cardiff CF10 2HE  
Tel: 029 2072 0860

### **Exeter**

6 Victory House,  
Dean Clarke Gardens,  
Exeter EX2 4AA  
Tel: 01392 422 315

### **Birmingham**

Great Charles Street,  
Birmingham B3 3JY  
Tel: 0121 2895 624

### **Manchester**

Oxford Place, 61 Oxford Street,  
Manchester M1 6EQ.  
Tel: 0161 228 1008

### **Leeds**

7 Park Row, Leeds LS1 5HD  
Tel: 0113 512 0293

### **Bonn**

Stockenstrasse 5, 53113,  
Bonn, Germany  
Tel: +49 176 8609 1360  
[www.vectos.eu](http://www.vectos.eu)

### **Registered Office**

**Vectos (South) Limited**  
**Network Building,**  
**97 Tottenham Court Road,**  
**London W1T 4TP**  
**Company no. 7591661**