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**CWL01 & CWL02 QUINN**

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**TRANSPORT STATEMENT**

- BUILDING INFORMATION MODELLING (BIM)
- CIVIL DESIGN & ENGINEERING
- DUE DILIGENCE
- OFFSHORE & ONSHORE ENGINEERING
- PRE-DEVELOPMENT
- STRUCTURAL ENGINEERING
- TRANSPORTATION & HIGHWAYS

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Revision By	Date	Context
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Pinnacle Engineering Consultants

Outline Construction Traffic Management Plan

Version No – 5

V5	20/10/23	Draft planning issue
V6	24/10/23	Issued for planning

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Outline Construction Traffic Management Plan

Version No – 5



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# 1 INTRODUCTION

## 1.1 Background

Pinnacle Consulting Engineers Ltd have been commissioned to draft a Transport Statement for a proposed data centre development located on the site of the former Quinn Radiator factory Dyffryn Lane, Newport.



**Figure 1 Aerial View of the existing development site (approximate site boundary edged yellow – refer to Architect’s drawings for actual planning boundary)**

## 1.2 Development Proposal

This pre-application request relates to the development of a data centre with ancillary office space together with associated groundworks, utilities, infrastructure, car parking, landscaping, and site access via Dyffryn Lane and Church Lane.

## 1.3 References

In order to complete this report, Pinnacle Consulting Engineering has made reference to the following documents:

- Newport Local Development Plan 2011 -26 (Adopted Plan January 2015)
- Guidelines for traffic impact assessment (TIA) Chartered Institution of Highways and Transportation (CIHT)
- Southeast Wales Transport Alliance Regional Transport Plan SWETA
- Supplementary planning Guidance Parking Standards Newport Council
- Sustainable Travel Supplementary Guidance Standards Newport Council July 2020

## 1.4 Applicable Policies

### 1.4.1 Background

The following section outlines the policies which be applicable for the proposed development.

### 1.4.2 National Policy

#### Planning Policy Wales (February 2021)

Planning Policy Wales (PPW) sets out the land use planning policies of the WAG and is supplemented by a series of Technical Advice Notes.

PPW states that, when determining a planning application for development that has transport implications, Local Planning Authorities should take into account the following issues:

- The impacts of the proposed development on travel demand.
- The level and nature of public transport provision.
- Accessibility by a range of different transport modes.
- The willingness of a developer to promote travel by public transport, walking or cycling, or to provide infrastructure or measures to manage traffic, in order to overcome transport objections to the proposed development (albeit payment for such measures will not justify granting planning permission to a development for which would not otherwise be granted).
- The environmental impact of both transport infrastructure and the traffic generated; and
- The effects on the safety and convenience of other users of the transport network.
- Technical Advice Note 18
- Technical Advice Note 18 (TAN 18) was published in March 2007 to support PPW. The document sets out WAG's objectives on planning, with regards to transport issues.
- TAN 18 states that in order to meet sustainable development policy objectives, Councils should be:
  - Promoting a resource and travel efficient settlement pattern.
  - Ensuring new development is located where there is, or will be, good access by public transport, walking and cycling thereby minimising the need for travel and fostering social inclusion; and
  - Encouraging the location of development near other related uses to encourage multipurpose trips.

#### Llwybr Newydd: the Wales Transport Strategy 2021

The 'Llwybr Newydd: the Wales Transport Strategy 2021' identifies a series of high-level outcomes and sets out the steps to their delivery, including:

- achieving a more effective and efficient transport system.
- achieving greater use of the more sustainable and healthy forms of travel.

- minimising demands on the transport system; and
- reducing the impact of transport on greenhouse gas emissions.

#### Guidelines for Traffic Impact Assessment (1994)

The 'Guidelines for Traffic Impact Assessment' were published by the Institution of Highways and Transportation (IHT) in 1994. They detail the requirements of any Transport Assessment submitted with a planning application for new development.

#### Planning Policy Wales 1024 (PPW 10)

Policy on ultra-low emission vehicles, which requires new non-residential developments to have charging points in at least 10% of the parking spaces available.

### 1.4.3 Regional Policy

#### Southeast Wales Valleys Local Transport Plan - January 2015

The LTP sets down the vision and objectives for transport in the SE Wales Valleys area and provides a short- and long-term programme of interventions to work towards achieving these goals. The short-term programme sets down those schemes that are priorities for the next 5 years up to 2020. The longer-term programme identifies aspirations up to 2030.

### 1.4.4 Local Policy

#### Newport Local Development Plan 2011 -26 (Adopted Plan January 2015)

The Newport Local Development Plan 2011 -26 (Adopted Plan January 2015) provides the local planning policy framework for Newport and was adopted by the Council in January 2015.

The Plan sets out the vision, objectives, strategy, and policies for managing development Newport and contains a number of local planning policies and makes provision for the use of land for the purposes of housing, employment, retailing, recreation, transport, tourism, minerals, waste, and community uses. It also seeks to identify the infrastructure that will be required to meet the growth anticipated in Newport up to 2026 and provides a monitoring framework for assessing the effectiveness of the Plan.

#### SP14 Transport Proposals

Transport proposals will be supported where they:

- Provide for traffic-free walking and cycling facilities and expansion of the network.
- encourage the use of public transport and other modes which reduce energy consumption and pollution.
- improve road safety.
- improve the quality of life of residents.
- assist the local economy.
- assist urban regeneration.
- provide access to new development areas which incorporate sustainable transport modes.
- relieve traffic congestion in the long term.



- result in other environmental improvements, including air quality, noise reduction, sustainable drainage, and enhanced biodiversity.

Transport schemes will be supported that bring benefits to the economy, health, and well-being of the community. The provision of choice of transport modes is important in achieving sustainable development, as is the integration of all modes of transportation. Policy GP5 provides guidance on the obligations on developers of schemes in the Gwent Levels.

As transport is a contributor to atmospheric pollution, it is therefore essential that the use of more energy efficient modes of transport is encouraged. Improvements to public transport will assist in reducing traffic congestion and therefore improving air quality and road safety. Encouraging walking and cycling through the improvement of infrastructure and accessibility will not only have environmental benefits but also promote healthier lifestyles.

Proposals for new road infrastructure will be required to consider the needs of sustainable modes of transport and include walking and cycling facilities where appropriate. Road schemes triggered by urban regeneration proposals will be considered for their economic benefits and should have full regard for sustainable travel, road safety, congestion, and quality of life

#### SP15 Integrated Transport

Integrated transport will be pursued in line with the national and regional transport strategies. Such transport will comprise:

- A co-ordinated pedestrian network, including schemes such as “safe routes in communities”.
- implementation of the cycling strategy.
- innovative forms of public transport such as bus priority, safeguarding and enhancement of rail routes and identification of new stations.
- designation of transport interchanges for park and ride, park and share, and road to rail freight centres.
- a central area parking strategy.
- facilities for public transport, walking and cycling in major new development; vii) interchange between bus, bicycle, and car to enable sustainable use of the countryside. Significant development proposals shall be accompanied by travel plans.

Integrated transport is one of the main principles of the Welsh Government’s National Transport Plan (NTP)<sup>21</sup> and is seen as a major way of encouraging a more effective use of the transport system. Transport schemes will seek to create opportunities for integrated and sustainable transport to apply the objectives of the NTP at a local level.

Newport occupies a strategic location in the region and integration of transport needs to be considered not just in local terms but also in the wider context.

In accordance with Planning Policy and technical advice note 18: transport (March 2007)<sup>22</sup> developments of a significant size should be accompanied by a transport assessment to establish anticipated impacts of development. They also provide an important basis for the preparation of travel plans, which set out proposals for the delivery of more sustainable travel patterns. Developers may be required to submit a travel plan as part of the planning application process.

### T3 Road Hierarchy

In order to facilitate the effective and safe use of the highway network a hierarchy of roads will be established. This road hierarchy will be used to determine the principle of access for new developments, it comprises the following:

- Strategic routes – these consist of the m4 motorway, trunk roads and the a4051 from the m4 to the Woodlands Roundabout, Malpas. These roads carry a substantial element of traffic to and around the city to major centres of population and commerce elsewhere. To facilitate the free movement of through traffic, strategic routes should have a limited number of junctions with parking limited to designated laybys or service areas. Only in exceptional circumstances and having regard to the strategic importance of a development will new direct access be permitted.
- principal routes – these consist of all principal routes which link the major population and employment areas in the sub-region to each other and to the strategic routes. As a general principle, the provision for on-street parking, new frontage access and turning movements will be restricted in the interests of road safety and the efficient movement of traffic.
- Local roads – these provide for the main movements within urban and rural areas, as well as giving access to the strategic and principal road network. Where appropriate, and especially in order to facilitate public transport, parking and turning movements may be restricted and the number of frontage accesses limited in the interests of road safety and the efficient movement of traffic.
- Access routes – these provide access to residential areas, industrial areas, the city centre and small rural communities and businesses. If necessary, and for reasons of safety and amenity, traffic movements and speed will be restricted. Walking, cycling and bus routes will be incorporated into layouts where appropriate. These roads will often give greater priority to pedestrians and cyclists.
- Improvements to the Strategic and Principal Road networks will be encouraged where they assist in reducing traffic congestion, promote road safety and accident reduction and increase accessibility for Public Transport. Particular
- regard will also be paid to the role of strategic and principal routes in supporting the economy.

Large development sites such as Glan Llyn (Llanwern) and Monmouthshire Bank Sidings (Cardiff Road) will be required to provide a hierarchy of roads within their sites and will be subject to master planning to set out facilities for walking, cycling, road users and public transport. Where possible, developments should provide permeable layouts that link in to existing urban areas. Large cul de sac type developments that do not provide adequate permeability and therefore restrict access to public transport, walking and cycling networks will be considered undesirable.

### T4 Parking

Development will be required to provide appropriate levels of parking, within defined parking zones, in accordance with adopted parking standards.

Welsh Government guidance requires that a co-ordinated approach be taken to parking at regional and local levels. The approach to car parking has therefore been developed in the

context of the Regional Transport Plan, prepared by the Southeast Wales Transport Alliance (SEWTA). The approach seeks to manage traffic and reduce car dependency, while ensuring that development, including change of use, is accompanied by sufficient parking space for private cars and service vehicles to avoid the need for vehicles to park on street and thereby cause congestion, danger, and visual intrusion.

A key aspect of this approach is that each Local Authority area is to be divided into zones, so different standards can be applied to different zones, according to accessibility criteria. Thus, in the City Centre where there is a high level of accessibility by public transport, walking and cycling, and where one visit may serve a number of purposes, and where large public car parks are available, there is no requirement for many forms of development to provide dedicated car parking. In a suburban setting there will often be significant parking requirements.

Supplementary Planning Guidance will be used to define the zones and set the relevant standards for each type of development.

On street parking often causes problems by reducing road width, which affects free flow of traffic and causes road safety hazards and reduces amenity for residents, who have to compete for available spaces. Parking for new developments should generally be provided off-street, although purpose built on street parking bays will be acceptable in new residential developments in addition to allocated on plot parking, for example, to provide facilities for visitors. Garages will only be considered as parking spaces where they meet the required minimum dimensions to encourage their use, which will be set out in the SPG.

### T5 Walking and Cycling

A network of safe walking and cycling routes will continue to be developed and protected. They will include.

- National Cycle Route Number 47, Cwmcam to Newport.
- National Cycle Route 4 Caerphilly to Newport and Chepstow
- National Coastal Route 88 Caerleon to Newport and Cardiff.

In line with the Welsh Government Transport Plan (2010) it is essential that Newport citizens and visitors have a healthy alternative to the car for leisure and commuting purposes. Safeguarded routes (existing and proposed) under this Policy are outlined on the Proposals Map. Specific routes are marked indicatively and may change, subject to minor design influences; therefore, the allocations on the Proposals Map are not prescriptive. In addition to existing routes, it is anticipated that further routes will be developed and improved during the Plan Period up to 2026. These have been marked on the Proposals Map in the same manner. Discussions with developers and landowners will be ongoing to facilitate enhancement of the routes. If proposals are in or near internationally sensitive nature conservation sites, they will be subject to Habitats Regulations Assessment (HRA) (in accordance with Policy GP5) and where necessary mitigation will be sought. The walking and cycle network should form part of, and link with, the wider green infrastructure network as promoted through other Policies of the LDP. Utility cycle routes within the urban area will be important in terms of contributing to the WG objectives for encouraging sustainable travel to work.

## 1.5 Scope of the Report

The scope of the transport statement includes for the following:

- Section 2 - describes the existing transport infrastructure and provides background information on: local highway network, personal injury accidents, sustainable access and cycling and walking provision.
- Section 3 - describes the proposed development, whilst undertaking an assessment to determine if the layout of the proposals is appropriate for delivery vehicles.
- Section 4 - describes the anticipated trip generation of the existing site and proposed development proposals and the impact the change on traffic will have on local junctions.
- Section 5 - summarises the content of the Transport Statement and draws a set of conclusions from the Transport Statement.



## 2 EXISTING SITUATION

### 2.1 Introduction

A summary of the sustainable transport options, public transport network, local highway network and highway safety record related to the site is provided below.

### 2.2 Site Description and Location

The application site is situated to the south of the M4 Motorway, southeast of junction 29. The proposed development is located at National Grid Reference (NGR) ST 28267 84090 (Easting 328267, Northing 328267, 184090) at Dyffryn Lane, Imperial Park, Coedkernew, Newport, Wales NP10 8BE.

The site currently consists of a two-storey office building, four portal frame warehouses, one portal frame warehouse with integral office accommodation, an ancillary building, and external concrete yard slabs.

Use Class B2 and B8.

The site has a developable area of approximately 76,800 sq. m.

The site is bound to the south by the Dyffryn Lane, to the west by Church Lane, to the north by industrial units and to the east by Celtic Way.

The site is currently accessed via a roundabout off Church Lane and Dyffryn Lane.

The proposed development will be accessed using the existing access road via Celtic Way or Church Lane.



Figure 2 Aerial View of the existing development site (approximate site boundary edged yellow)

## 2.3 Local Road Network

### Celtic Way

Celtic Way is a high-quality road measuring c.7m on approach to the development site.

No footpaths or cycle paths were noted locally.

There is a posted speed limit of 40mph on approach to the development site.



Figure 3 Celtic Way

### A48

The A48 is a high-quality dual carriageway measuring c.20m wide including central median. It is subject to a speed limit of 40 mph on its approach to Church Lane and Celtic Way.

A footpath is located on both sides of the road with limited crossing points.



Figure 4 A48

## M4

Access to/from the development will be provided via Junction 29 of the M4 Motorway. The M4 motor way runs from west London to southwest Wales.

The M4 provides excellent access to the strategic road network, providing direct access to locations along the M4 corridor, leading to access to the M5 and other road networks, therefore allowing access to Cardiff, Newport, Bristol, Birmingham, Swindon, Reading and London.

## 2.4 Pedestrian and Cycling Accessibility

### 2.4.1 Introduction

Encouraging more people to walk and cycle is increasingly being a vital part of any Local Highways Authorities (LHA) to tackle congestion, improve air quality, promote physical activity, and improve accessibility. A summary of locally pedestrian and cycle infrastructure is outlined below.

### 2.4.2 Pedestrian Accessibility

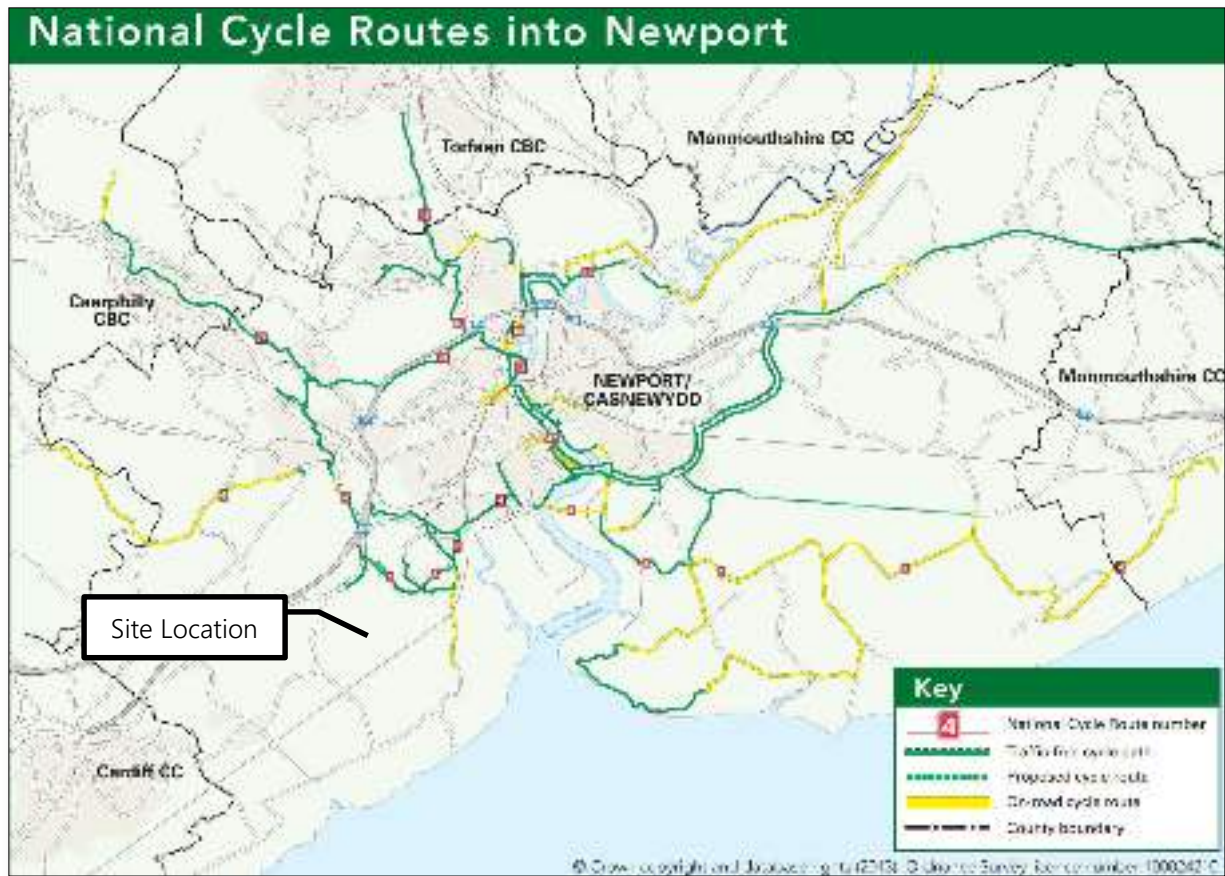
Given the location of the development and local catchment there is limited pedestrian permeability adjacent to the development.

Accordingly, the 15-min walk distance provides limited walking accessibility but does include residential areas such as those located off Pencarn Way.









**Figure 6 Local cycle network**

There is no dedicated local cycle infrastructure. All trips undertaken by bike will be on road sharing road space with general traffic. Areas accessible by bike included:

1. Wales And West Utilities Spooner Close 4 min
2. Holiday Inn Express Lakeside Drive, Coedkernew 5 min
3. Waterloo Hotel 113 Alexandra Road 16 min
4. Best Western St Mellons Hotel Castleton 18 min
5. Sytner Newport MINI The Old Town Dock 20 min
6. Opal 1 Newport Endeavour House 21 min
7. Newport 22 min
8. O2 Shop Newport 169 Commercial Street 22 min
9. Newport Central Library John Frost Square 22 min
10. Blue Banana Newport
11. Commercial St 22 min
12. Newport Market Bus Station 23 min

13. Newport Market Upper Dock St 23 min
14. Newport Railway Station (NWP) High St 23 min
15. Newport Castle 24 min
16. Wales 24 min
17. Neon 25 min
18. Newport Stadium Spytty Rd. 26 min
19. St John Wales Newport Training Centre Lyne Road 27mins

This is illustrated in the figure below.

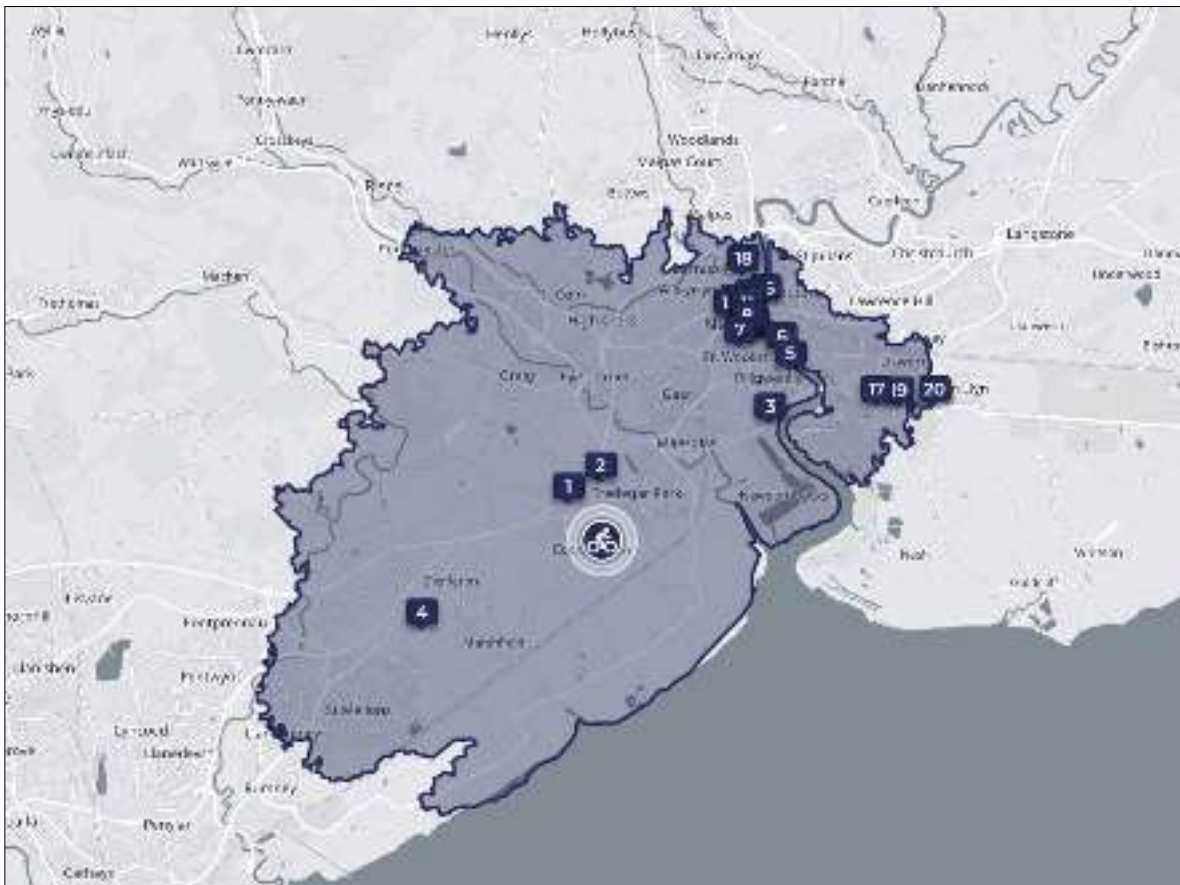


Figure 7 Cycling Accessibility - 30 Min Cycle Time (Source: traveltime.com)

#### 2.4.4 Bus Services

The location of the proposed development is well situated where it benefits from existing bus services as shown in the figure below.

These bus stops are located within Walk 948 m/12 minutes walking distance from the site boundary. There are no footpaths or cycle lane to these stops.

A summary of the available bus services and routes from the bus stops closest to the site entrance are set out in the table below.



Figure 8 Location of bus stops within the proximity of the proposed development

A summary of local bus services are provided below.

Service	Stops	Route	Typical Weekday Services & Frequency		
			First Bus	Last Bus	Peak Frequency
30	Nwpdj dj/ nwpdj dm	Cardiff to Newport	07:15	20:15	30 minutes headway
		Newport to Cardiff	06:30	20:25	30 minutes headway
35	Nwpapmj/ nwpapmg	Friars Walk at Friars Walk 10 - Friars Walk at Friars Walk 10	07:45	18:45	60 minutes headway
36	Nwpapmj/ nwpapmg	Friars Walk at Friars Walk 10 - Friars Walk at Friars Walk 10	07:15	18:13	60 minutes headway
X15	Nwpapmj/ nwpapmg	Brynmawr to Upper Dock Street	05:35	21:10	60 minutes headway
		Upper Dock Street to Brynmawr	06:30	22:40	60 minutes headway

**Table 2.1 Bus timetable for bus stops near the site entrance**

The route from the bus stop to the development has a proportion with no footpath available. The above route is shown for illustrative purposes only.

#### 2.4.5 Summary

In summary, the existing site benefits from limited levels of existing bus services and walking/cycling infrastructure which will mean that initially, and pending investment in local public transport, the development will likely be car dependent.

#### 2.5 Accident Analysis

An analysis of the injury records on the public highway in the vicinity of the site access for the most recent three-year period, or five-year period if the proposed site has been identified as within a high accident area is recommended by the Guidance on Transport Assessment. Accident data has been obtained from the CrashMap website for the five-year period between 2019 and 2021 and is depicted in the figure below.





**Figure 9 Accident data for the five-year period between 2015 and 2020 within the proximity of the proposed development**

It can be seen from the figure above that 4No. accidents were recorded on the approach roads to the development, as summarised below:

1. Incident Details  
Date: 25/04/2019  
Severity: Serious  
Number of Vehicles Involved: 2  
Number of Casualties Involved: 1  
Severity: Serious  
Number of Vehicles Involved: 2  
Number of Casualties Involved: 1
2. Incident Details  
Date: 24/01/2021  
Severity: Serious  
Number of Vehicles Involved: 2  
Number of Casualties Involved: 4
3. Incident Details  
Date: 11/09/2020  
Severity: Slight  
Number of Vehicles Involved: 1  
Number of Casualties Involved: 1

4. Incident Details

Date: 13/01/2017

Severity: Slight

Number of Vehicles Involved: 1

Number of Casualties Involved: 1

Although there are number of accidents of the surrounding local highway networks, it is unlikely that the proposed development will have material impact on the safe operation of the local highway network.

## 3 PROPOSED DEVELOPMENT

### 3.1 Introduction

It is intended to re-purpose Quinn Radiator factory into a data centre campus. The new scheme will be designed to sit well within its context and to maximise the operational and energy efficiency. The expansion project will be developed to maximise IT capacity for the new data centre development whilst ensuring the campus can be extended in a way that ensures safe, uninterrupted operation of the existing adjacent data centre facility which is currently under construction on site.

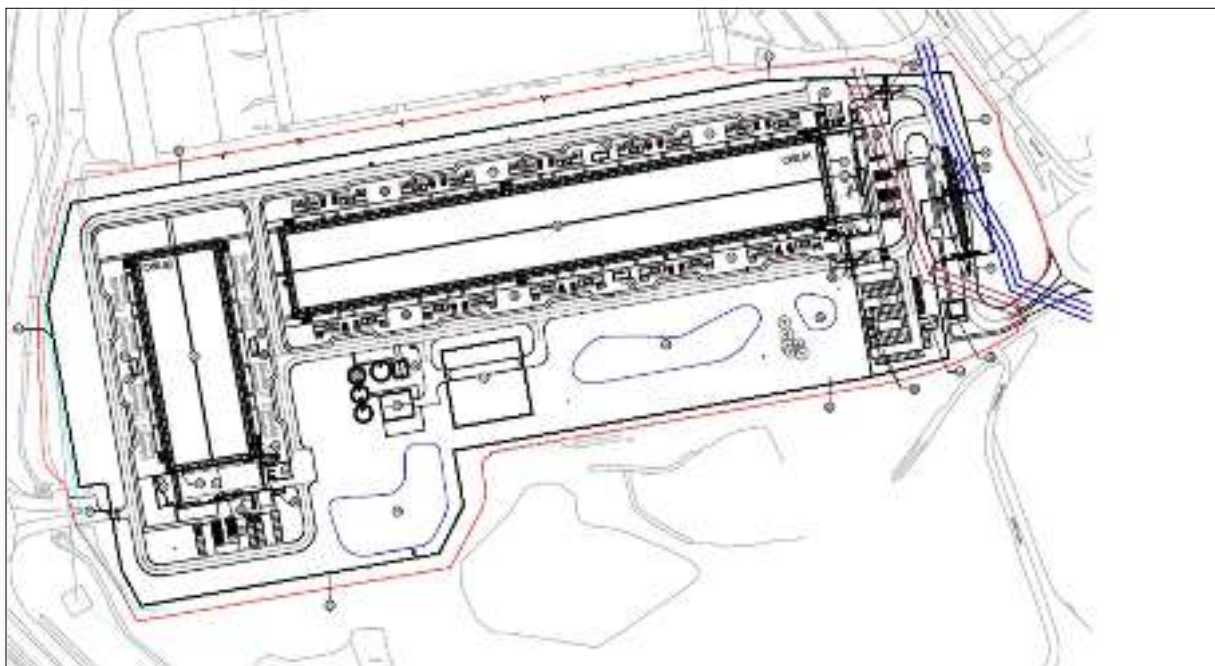


Figure 10 Proposed Layout.

### 3.2 Access Arrangement

It is proposed that vehicles enter and exit the site via the existing accesses on via Dyffryn Lane, Church Lane and Celtic Way. Vehicle entry will be controlled by a new, double line of security gates forming an 'air lock' holding area in which security checks can take place.

Large vehicles will visit site infrequently and will be directed to the relevant loading positions under supervision.

Vehicle swept path analysis using maximum legal permitted articulated truck on UK roads and 7.5 tonne vehicle is provided in appendix C. Normal procedure will be for large vehicles within the compound to exit via the way they came in.

### 3.3 Parking Arrangement

#### 3.3.1 Standards

The development is located adjacent to Parking Zone 5, as illustrated in mapping provided by Supplementary Planning Guidance published Newport City Council.

The parking requirement for B3-B7 land use in Zone 5 is illustrated below.

Type of development Operational Non-operational	Type of development Operational Non-operational	Type of development Operational Non-operational
Small industry (< 100 m2)	1 van space	1 space
Small industry (< 235 m2)	1 van space	2 spaces
Industry	See Note 5	5 1 space per 80 m2
Highly technical industry	See Note 5	1 space per 20 m2
Industrial warehouses	See Note 5	1 space per 140 m2
Storage warehouses	1 space per 500 m2	1 space per 500 m2 Nil
Distribution centres	35% of GFA	1 space per 80 m2
Distribution centres	25% of GFA	1 space per 80 m2

**Table 1 Car Parking Standards**

Based on the Supplementary Planning Guidance published Newport City Council a total of 233 car parking spaces is required at rate of 1 per 140 sq. m based on the Industrial warehouses land use.

It is argued that this rate of car parking provision is unsustainable and will only encourage single car occupancy trips. Reducing the availability of parking is closely linked with reducing vehicle trips, so many of the programs recommended for reducing parking demand are the same ones recommended for trip reduction through Transportation Demand Management. In this instance, TDM is being led by the availability of car parking spaces on site. The availability of spaces can be reduced or repurposed i.e., allocating traditional car parking spaces to other uses such as bike parking, pool car spaces only, ride share spaces only, etc.

Parking restraint measures include pricing and supply controls which make car use more expensive and less convenient, thereby increasing the attractiveness of non-car modes. Parking has a significant influence on people's travel behaviour as has been demonstrated over many years in many cities across the UK.



In this entrance, transport demand management through parking restraint can be targeted at this location locations where accessibility by alternative modes is high thereby encouraging mode shift to public transport, walking and cycling.

The quantum of car parking is based on the expected number of employees and visitors that will access the site. Once completed, it is estimated that there would be 90 employees on site at any one time with an estimated 20 visitors giving a peak parking demand of 110 car parking spaces.

Noting the accompanying Travel Plan, and the Applicant’s desire to encourage sustainable modes of travel to/from the site, a total of 121 car parking spaces will be provided on site.

### 3.4 EV Charing Spaces

Planning Policy Wales 10 (PPW 10) states that the policy on ultra-low emission vehicles, which requires new non-residential developments to have charging points in at least 10% of the parking spaces available.

Based on 121 car parking spaces, A total of 12 EV charring spaces will be provided. All spaces will have the ability to be upgraded in the future.

### 3.5 Cycle Parking

Cycle parking will be provided in accordance with Table 1 of Sustainable Travel Supplementary Planning Guidance July 2020. A summary of the parking requirements is outlined below.

Development Type	Long Stay Requirement (secure and ideally covered)	Short Stay Requirement (obvious, easily accessed, and close to destination)
Business offices	1 space per 4 staff	1 space per 20 staff

Table 2 Cycle Parking Standards

A minimum of 27 cycle parking spaces are required for the site as illustrated below.

Development Type	Long Stay Requirement	Short Stay Requirement
Business offices	22.5	4.5

Table 3 Cycle Parking Provision

Given the reduction in car parking spaces, are suggested in the development plan standards, it is proposed to provide 40 spaces which would help encourage more sustainable commute options to the development.

## 4 TRANSPORT IMPACT ASSESSMENT

### 4.1 Introduction

The methodology for assessing the traffic implications of this development involves quantifying the number and nature of trips that would be generated and reviewing these trips in the context of the prevailing conditions, the area of influence and the available infrastructure.

The nature of the development and its relative location to the catchment dictates that the modal choice to and from the site would be primarily by private car based on the current public transportation accessibility.

### 4.2 Traffic generation

The development will generate trips through the day. The number of trips will be a function of the number of gross floor area and/or car parking spaces. Given the lack of locally pedestrian, cycle and public transport infrastructure the development will be initially car dependent.

### 4.3 TRICS

The Trip Rate Information Computer System [TRICS] database has been interrogated to derive trip rates commensurate with developments of the character proposed in this case, notably a data centre with associated facilities.

The use of the TRICS database has also enabled the profile of arrivals and departures throughout the day to be assessed and this has served to confirm the choice of the highest respective peak hours for use in the analyses.

This database is a well-established and constantly updated tool used in the determination of generated traffic for developments since it is a substantial source of validated empirical data on the arrival and departure rates for a range of differing types and sizes of development in a variety of locations.

### 4.4 Construction Phase

#### 4.4.1 Introduction

The likely impact of the construction works will be short-term in nature. The number of staff on site will fluctuate over the implementation of the subject scheme based on the following stages of construction:

- Enabling works
- Ground works
- Demolition Works
- Building works

Nevertheless, based upon the experience of similar projects and estimation has been made on the construction impact.

The construction phase of the project is expected to last up to 4.5 years.

Were possible, construction workers will use shared transport subject to Covid 19 guidelines that are applicable at the time. On-site employees will generally arrive before 07:00, thus avoiding the morning peak hour traffic. These employees will generally depart after 16:00.

It should be noted that the majority of such vehicle movements would be undertaken outside of the traditional peak hours, and it is considered that the level of generated traffic would not result in any long-term operational problems on the local road network.

Care will be taken to ensure existing pedestrian and cycling routes (where applicable) will be suitably maintained or appropriately diverted as necessary during the construction period, and temporary car parking is provided within the site for contractor's vehicles. As currently planned, it is likely that construction will have no impact on external pedestrian and cycle infrastructure.

The envisaged traffic generated during the construction period will depend on the phasing of the construction which will be determined by the Applicant. It is anticipated there will not be any likely significant long-term effects as a result of the construction of the development when compared to the operational traffic volumes.

The majority of traffic generated by delivering materials during the project are envisaged to occur during the following construction elements:

- Site clearance
- Laying of internal road
- Concrete, steel, and other material deliveries to site during the construction of structures

For the construction of the proposed development, it will be necessary to transport the construction materials and equipment. In addition, personnel will travel to and from the work site in cars from their places of residence.

This includes (but is not limited to):

- Establishing the construction site compounds.
- The removal of surplus soil material, suitable surplus excavated material for reuse and unsuitable excavated material, which will be taken offsite to a site permitted for deposition.
- Exportation of demolition waste
- The importation of suitable soil material where required.
- The importation of relevant construction materials and equipment.
- The exportation of construction waste.
- Transportation of workers to and from the site.

Several construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

The main contractor will appoint road marshal to ensure no disruption to traffic or pedestrians when construction traffic uses the public highway.

#### **4.4.2 Procurement**

The procurement process will show an awareness of all vehicles visiting the site. The process will also identify any impacts associated with the servicing and deliveries of the development and

appropriate measures to mitigate them. This will be undertaken by the site main contractor, waste and refuse service provider, etc).

#### **4.4.3 Delivery Schedule**

A Delivery Schedule (DS) will be created for the site and will be used to regulate, control and monitor the servicing and deliveries during the construction phase. The DS provides a detailed plan of all scheduled deliveries by day including waste and refuse servicing movements. The DS will be maintained, and all service providers will agree to it. Scheduled deliveries would be subject to any local highway conditions/ restrictions or logistical considerations.

#### **4.4.4 Routing of Deliveries**

The main contractor will have various requirements for equipment, supplies, etc and are likely to be sourced from manufacturers and suppliers that are not situated within the immediate vicinity of the proposed development.

The use of local roads will be minimised as much as possible, particularly to avoid / minimise the encountering of narrow road widths, poor visibility and unsuitable bearing capacities.

The access route will be designed to ensure deliveries are brought to the site in the shortest route possible while avoiding as many schools as possible (primary, secondary and Third Level).

This will ensure that HGVs and other larger delivery vehicles will spend a minimum amount of time on regional roads and local streets whilst avoiding schools.

#### **4.4.5 Loading / Unloading**

The offloading areas will be managed by the security manager and /or security supervisors. Every delivery that enters the site will have previously issued an offloading procedure for each load.

The offloading procedures will be highlighted in the induction training. Disciplinary action will be taken with any contractor who does not comply with the procedures.

The delivery drivers will be given strict instructions by the logistics manager prior to offloading. The offloading area will be a no-go area for people not trained in the relevant loading/unloading and H&S procedures.

#### **4.4.6 Reducing Servicing and Delivery Trips**

The Applicant operates a just-in time supply chain.

A just-in-time supply chain is one that moves material just before it's needed in the supply chain process.

The technique reduces the need to store excessive levels of materials in a warehouse, and it works best when each operation is closely synchronized with the subsequent operations.

Subject to the flexibility of suppliers, there is scope to employ a 'just in time' approach to deliveries. As well as the positive impact this can have on the local highway network in terms of reduced vehicle activity the use of the 'just in time' system can also have positive impact for businesses in terms of order processing, inventory management and waste management.



This will help reduce the number of deliveries to/from the development as suppliers only attend site when required.

As servicing and supplier contracts are agreed there is the opportunity to consolidate deliveries at source thus minimising the amount of service vehicles serving the site.

Where possible, deliveries will be arranged to avoid peak times. Vehicles for the delivery of inventory will be on a "Just in Time" basis and will be met by a site operative on arrival at the site. Site staff will be on hand to receive the delivery immediately, meaning that no deliveries will be let idle on local approach roads.

#### **4.4.7 Existing No Car Trip Rates (Non – Car)**

It is anticipated that following non-car vehicle classes will require access to the development both during the construction phase and operational phase:

##### LGV (Light Goods Vehicle)

All car type delivery vans and those of the next larger carrying capacity such as transit vans. Included here are small pickups, ambulances which look like vans without windows and milk floats. Most of this group are delivery vans of one type or another and goods vehicles (middle-sized trucks) with single rear wheels. Also includes LGVs towing a trailer or caravan as one 'LGV'. If a vehicle has sideguards fitted between axles, or four wheels on the rear axle it should NOT be included in this category.

##### OGV 1 (Ordinary Goods Vehicle 1)

All larger rigid vehicles with two or three axles including larger ambulances with double rear wheels, tractors (without trailers), road rollers for tarmac pressing, box vans, similar large vans and middle-sized trucks which have double rear wheels (if the rear wheels are single, the vehicle should be classified as LGV).

##### OGV 2 (Ordinary Goods Vehicle 2)

Includes all rigid vehicles with four or more axles and all articulated vehicles. Also included in this class are OGV1 goods vehicles towing a trailer.

The above list is not exhaustive but represents typical access requirements.

The table below illustrates the number of OGV trips produced during normal operating hours for the existing land use.

Time Range	Arrivals	Departures	Totals	Arrivals	Departures	Totals
	Trip Rate	Trip Rate	Trip Rate			
05:00-05:30	0.00	0.00	0.00	1	1	2
05:30-06:00	0.01	0.00	0.01	4	0	4
06:00-06:30	0.00	0.00	0.00	2	2	3
06:30-07:00	0.01	0.00	0.01	4	2	6
07:00-07:30	0.01	0.00	0.01	7	3	10
07:30-08:00	0.01	0.01	0.01	5	6	11
08:00-08:30	0.01	0.01	0.02	8	5	14
08:30-09:00	0.01	0.01	0.02	9	6	15
09:00-09:30	0.02	0.01	0.02	12	7	18
09:30-10:00	0.02	0.01	0.03	13	11	24
10:00-10:30	0.02	0.01	0.03	12	8	21
10:30-11:00	0.02	0.01	0.03	12	7	19
11:00-11:30	0.01	0.01	0.03	9	10	19
11:30-12:00	0.01	0.01	0.02	8	8	15
12:00-12:30	0.02	0.01	0.03	12	9	21
12:30-13:00	0.01	0.01	0.02	7	9	16
13:00-13:30	0.02	0.01	0.03	12	8	20
13:30-14:00	0.01	0.01	0.02	6	5	12
14:00-14:30	0.01	0.01	0.01	5	5	10
14:30-15:00	0.01	0.01	0.01	5	5	9
15:00-15:30	0.01	0.01	0.01	5	5	11
15:30-16:00	0.01	0.01	0.01	4	5	8
16:00-16:30	0.01	0.01	0.02	6	7	13
16:30-17:00	0.00	0.01	0.01	2	4	5
17:00-17:30	0.01	0.00	0.01	5	3	8
17:30-18:00	0.00	0.00	0.00	2	2	3
18:00-18:30	0.00	0.00	0.01	1	3	4
18:30-19:00	0.00	0.00	0.00	1	2	3
19:00-19:30	0.00	0.01	0.01	0	6	6
19:30-20:00	0.00	0.01	0.01	2	6	8
20:00-20:30	0.00	0.01	0.01	0	6	6
20:30-21:00	0.00	0.01	0.01	0	8	8
21:00-21:30	0.00	0.00	0.00	0	0	0
21:30-22:00	0.00	0.00	0.00	0	0	0
<b>Total</b>				<b>178</b>	<b>175</b>	<b>353</b>

**Table 4 Trip Rates – Existing**

The existing land use will produce up to 178 arrivals and 175 departures (353 two-way trips) of OGV trips during normal hours of operations.

The busiest hour is from 10:00-11:00 producing up to 25 arrivals and 15 departures (40 two-way trips) of OGV trips during normal hours of operations.

The table below illustrates the number of LGV trips produced during normal operating hours for the existing land use.

Time Range	Arrivals	Departures	Totals	Arrivals	Departures	Totals
	Trip Rate	Trip Rate	Trip Rate			
05:00-05:30	0.01	0.00	0.01	6	0	6
05:30-06:00	0.01	0.00	0.01	6	0	6
06:00-06:30	0.01	0.00	0.01	7	3	10
06:30-07:00	0.01	0.00	0.01	5	1	6
07:00-07:30	0.01	0.00	0.01	8	2	10
07:30-08:00	0.01	0.00	0.01	5	2	7
08:00-08:30	0.01	0.01	0.01	7	4	11
08:30-09:00	0.01	0.01	0.02	10	8	18
09:00-09:30	0.01	0.01	0.02	10	8	18
09:30-10:00	0.02	0.02	0.03	13	12	25
10:00-10:30	0.02	0.01	0.03	12	9	22
10:30-11:00	0.02	0.02	0.04	17	15	31
11:00-11:30	0.01	0.01	0.03	9	10	19
11:30-12:00	0.01	0.01	0.02	9	9	18
12:00-12:30	0.02	0.01	0.03	12	11	22
12:30-13:00	0.02	0.02	0.03	12	12	24
13:00-13:30	0.01	0.02	0.03	10	13	23
13:30-14:00	0.01	0.01	0.02	8	10	18
14:00-14:30	0.02	0.02	0.03	12	12	24
14:30-15:00	0.02	0.02	0.03	12	14	26
15:00-15:30	0.01	0.02	0.03	10	14	24
15:30-16:00	0.01	0.01	0.02	8	9	18
16:00-16:30	0.01	0.02	0.03	6	17	23
16:30-17:00	0.01	0.01	0.02	5	8	12
17:00-17:30	0.01	0.01	0.01	4	7	11
17:30-18:00	0.00	0.01	0.01	3	5	8
18:00-18:30	0.00	0.00	0.00	2	2	3
18:30-19:00	0.00	0.00	0.00	1	2	2
19:00-19:30	0.00	0.00	0.00	2	0	2
19:30-20:00	0.00	0.00	0.00	0	0	0
20:00-20:30	0.00	0.00	0.01	3	3	6
20:30-21:00	0.00	0.00	0.00	0	3	3
21:00-21:30	0.00	0.00	0.00	0	0	0
21:30-22:00	0.00	0.00	0.00	0	0	0

<b>Total</b>	<b>236</b>	<b>221</b>	<b>457</b>
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**Table 5 LGV Trip Rates – Existing**

The existing land use will produce up to 236 arrivals and 221 departures (4573 two-way trips) of LGV trips during normal hours of operations.

The busies hour is from 10:00-11:00 producing up to 29 arrivals and 24 departures (53 two-way trips) of OGV trips during normal hours of operations.

The busies hour is from 10:00-11:00 producing up to 54 arrivals and 39 departures (93 two-way trips) for both OGV and LGV trips during normal hours of operations. This is summarised in the table below.

Peak Hour Trips			
Trip Generation from TRICS		Peak Hour	
Usage	Units	Arrivals	Departures
Employment/C - Industrial Unit	76,800 sq. m	54	39
<b>Two Way Total</b>		<b>93</b>	

**Table 6 OGV & LGV Trip Rates – Existing**

#### 4.4.8 Construction Trip Rates (Non-Car)

At its peak, job creation likely to be c. 1500 over the demolition, construction a phase of the development.

To complete the development, both CWL 01 and CWL 02 and including fit out of the 'CoLos' all Colo fitouts), it is estimated that the construction phase will last c. 4.5 years with current start on site in September 2024.

The envisaged traffic generated during the construction period will depend on the phasing of the construction which will be determined by the Applicant. Based on the estimated number of construction related trips, the construction phase will not have a significant effect on the local road network as a result of the construction of the development when compared to the existing OGV and LGV trips produced by the existing land use.

The majority of traffic generated by delivering materials during the project are envisaged to occur during the following construction elements:

- Site clearance
- Laying of internal road
- Concrete, steel, and other material deliveries to site during the construction of structures
- For the construction of the proposed development, it will be necessary to transport the construction materials, equipment, and personnel to and from the work sites.
- This includes (but is not limited to):



- Establishing the construction site compounds.
- The removal of surplus soil material, suitable surplus excavated material for reuse and unsuitable excavated material, which will be taken offsite to a site permitted for deposition.
- The importation of suitable soil material where required.
- The importation of relevant construction materials and equipment.
- The exportation of C&D Waste and C&D Waste Demolition.
- Transportation of workers to and from the site.

Several construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

#### Demolition Phase

A Demolition Contractor has been appointed to carry out the demolition of the existing site.

The Demolition Contractor has indicated that there will be a 20-month programme to carry out the following works:

- Mobilise and enabling works – 4 Weeks
- Soft strip of office buildings – 4 Weeks
- Demolition and Drainage Diversion – 18 Months
- Demolition and Drainage Diversion – 1 Week

Based on the above activities, the Demolition Contractor has estimated the number of vehicle movements, as illustrated in the table below.

It is the intention that where possible, demolition materials such as concrete, steel and hard standing will be reused on site. Only materials that can not be processed on site will be taken off site.

Phase/Stage	Duration	<3.5t	3.5t-7.5t	Total	Average/Day (Two Way)	>7.5t	Average/Day (Two Way)
Mobilise and enabling works	4 Weeks	5	4	9	2	30	4
Soft strip of office buildings	4 Weeks	3	3	6	2	49	6
Demolition and Drainage Diversion	18 Months	10	10	20	2	200	2
Demolition and Drainage Diversion	1 Week	2	1	3	2	1	2

**Figure 11 Demolition Stage - Expect Vehicle Movements**

During the demolition phase, the proposed development will generate a maximum of 2 OGV movements and 6 HGV movements during the working day.

Trips Comparison	
Trip Generation from TRICS	Two Way
Usage	
Employment/C - Industrial Unit (Peak Hour Trips)	93
Demolition Phase (During the working da)	8
<b>Difference</b>	<b>-85</b>

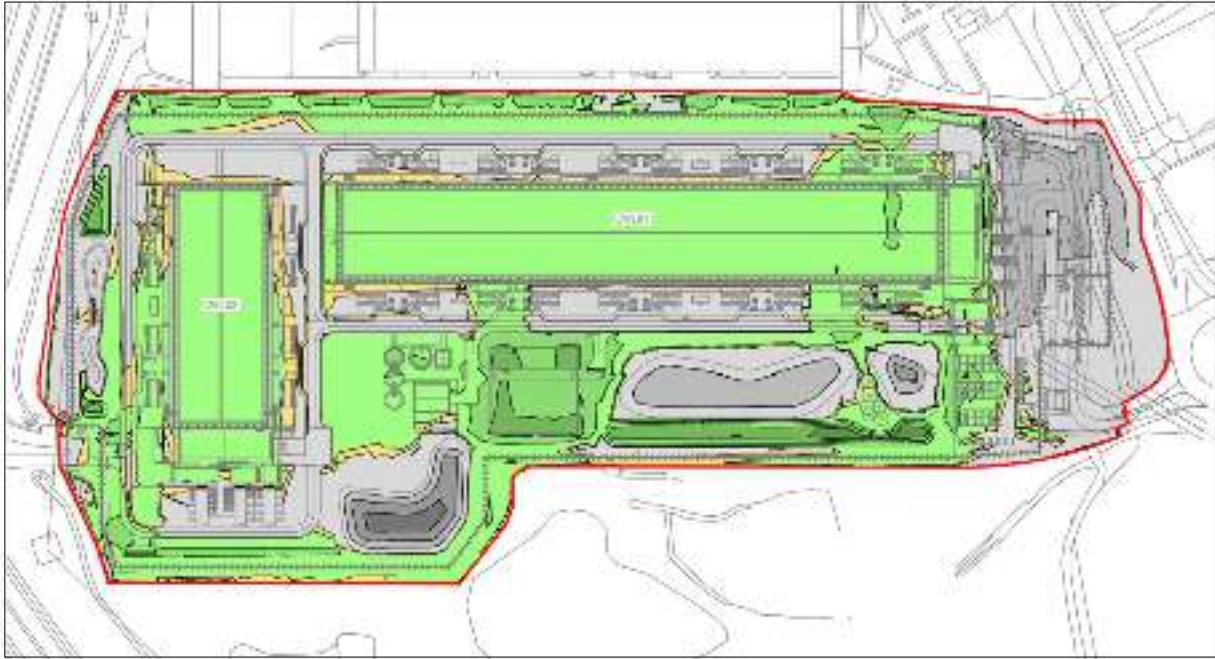
**Table 7 OGV & LGV Trips – Comparison**

Based on the above table, 85 less trips will be produced during the demolition phase compared to the operational phase of the original land use, if all trips were to occur during the peak hour. This is not the case.

The above is based on the worst-case scenario i.e., that all steel can not be recycled and would have to be shipped off site.

### Cut/Fill to Site Formation

An AutoCad Civil 3D Model has been produced with a view to balancing the cut and fill requirements for the formation level. An extract from the cut and fill model is shown below.



**Figure 12 Cut & Fill Model Extract**

The proposed development has a net fill of 23,545 m<sup>3</sup>.

At an assumed 15 cubic metres in volume per HGV and 30 trips per day (60 two-way trips in total), it would take c. 2 months for this volume of soil to be taken. This is assumed that these trips would be spread out throughout the working day.

If these trips were to be carried out during the peak period, this would be less than the 93 two-way peak hour trips associated with the operational phase of the original land use.

Suitable material will be mounded to create a berm and in turn will allow for the material to be deposited onto the HGVs by excavator. The HGVs will manoeuvre to receive the load and leave site. The haulage contractor will be required to organise the HGVs in an efficient manner to prevent the build-up of vehicles waiting outside the curtilage of the site.

### Construction/Fitout Phase

The development will be served by cranes, given the construction method and site confines. Lifting capacities will be predicated on the maximum loading requirements. A material and plant loading schedule will be undertaken to evaluate these needs.

All material scheduling and ordering will be communicated to the necessary personnel on site at the end of every day for the following day. It is imperative that deliveries are timely and executed efficiently to avoid unnecessary waiting.

Whilst it is not possible at this stage to accurately identify the day-to-day traffic movements associated with the construction activities, based on experience of similar sites it is considered that the number of constructions related heavy goods vehicle movements to and from the application site will be approximately 12 arrivals and 12 departures per hour during the peak period of construction This is summarised in the table below.

Peak Hour Trips		
Usage	Peak Hour	
	Arrivals	Departures
Construction Phase – LGV/HGV	12	12
<b>Two Way Total</b>	<b>24</b>	

**Table 8 Construction Peak Hour Trip Rates**

#### 4.4.9 Construction Impact (Non – Car)

At each stage in the construction process (demolition, site clearance, construction/fitout) the number of trips produced through the working day is less that the number of trips that the original land use generated during its peak phase.

On that basis, it is assumed that the construction phase of the proposed development will have less of an impact on the local highway network compared to the operational phase of the original land use.

#### 4.4.10 Construction Impact – Car

Construction activities will commence at 08:00 and finish at 18:00 Monday to Friday, and 08:00 to 13:00 on Saturdays. No deliveries will be scheduled for Sundays or Bank Holidays.

There may be occasions where it is necessary to make certain deliveries outside these times, for example, where large loads are limited to road usage outside peak times.

All access roads used by contractors will be monitored for mud and any construction materials and cleared using a shovel and broom and if required a mechanical road sweeper.

At its peak, there will be up to 1500 operatives working on site. This compares to the 280 staff who worked at Quinn Radiator factory before its closure.

The site operatives will generate non-primary diverted trip i.e., an existing multi-purpose (linked) trip that involves deviating from the normal route (another construction site) in order to visit the new construction site.

It is well recognised that construction workers tend to make greater use of carpooling than traditional '9-5' workers, possibly due to shared accommodation and travelling from further afield/lower levels of car ownership, which results in a greater level of sharing journeys.



Notwithstanding this, it is proposed that within the site offices or on the staff welfare notice board there will be information on car sharing and a contact number for the main contractor welfare officer who will have a list of site operatives and their willingness to share journeys so that opportunities for car sharing can be maximised. In the event that a lift to work or home becomes unavailable a registered member of the scheme will be offered an alternative lift home or failing that a taxi/public transport ticket will be provided.

For staff that chooses to travel to site using cars or other motorised vehicle a vehicle a pooling system will be put in operation by the contractor. Such measures shall be adopted in order to reduce traffic levels on the local road networks.

Car-pooling will only be encouraged/advised where it is in line with Government guidance and/or where all public health measures are adhered.

Parking of construction staff vehicles on the public road network will not be permitted. All construction traffic will access the site via the existing accesses. Car parking will be provided for all workers who travel to site using a car in or adjacent to the site compounds, as determined by the construction program.

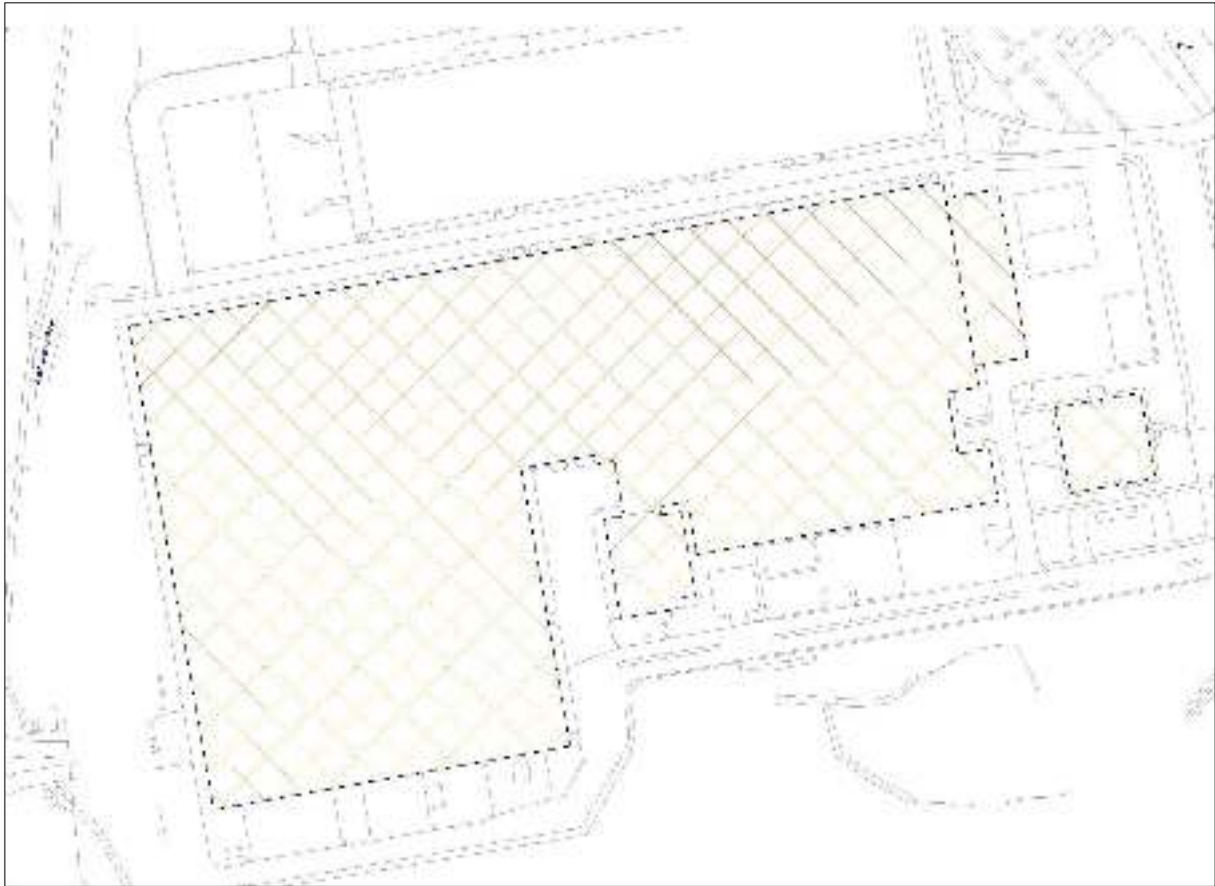
There is existing car parking on site however if required additional car parking can be provided and will be created by laying of a temporary surface for vehicles.

This number of construction vehicle movements is considered to be relatively low compared to the wider road network and operational traffic especially given that these trips already existing on the network but are diverted to the proposed development.

## **4.5 Operational Phase – Gross Floor Area**

### **4.5.1 Existing Trip Generation**

The site currently forms the Quinn Radiator manufacturing plant. The outline of the existing buildings is illustrated below.



**Figure 13 Existing buiklsuing layout**

The chosen trip rates for the existing land use, i.e., the Quinn Radiator factory and are outlined in Table 19 below.

Peak Hour Trip Rates					
Trip Generation from TRICS	Units	Weekday AM 08:00-09:00		Weekday PM 17:00-18:00	
		Arrivals	Departures	Arrivals	Departures
Employment/C - Industrial Unit	Per 100 sq. m	0.384	0.052	0.07	0.348

**Table 9 Existing trip rates**

These trip rates are used in conjunction with the proposed schedule of accommodation to determine the resultant total trips generated by the proposed development.

For the proposed development, these figures can be seen in the table below.

Peak Hour Trips Rates					
Trip Generation from TRICS	Units	Weekday AM 08:00-09:00		Weekday PM 17:00-18:00	
		Arrivals	Departures	Arrivals	Departures
Usage					
Employment/C - Industrial Unit	76,800 sq. m	295	40	54	267
Peak Total		295	40	54	267
Two Way Total		335		321	

**Table 10 Existing peak hour trip rates**

It can be seen from the above that the total vehicle movements generated by the existing land use has the potential to generated 295 arrivals and 40 departures in the AM peak (two-way total of 335). The total number of vehicle movements in the PM peak hour will be 54 arrivals and 267 departures (two-way total of 321).

#### 4.5.2 Proposed Trip Generation

In order to understand the expected trip generation of the data centre assumptions have been made on the level of staff associated with the proposed development, based on information provided by the Applicant from sister sites.

The figure below illustrates the arrivals of staff and visitors to a sister site operated by the Applicant.

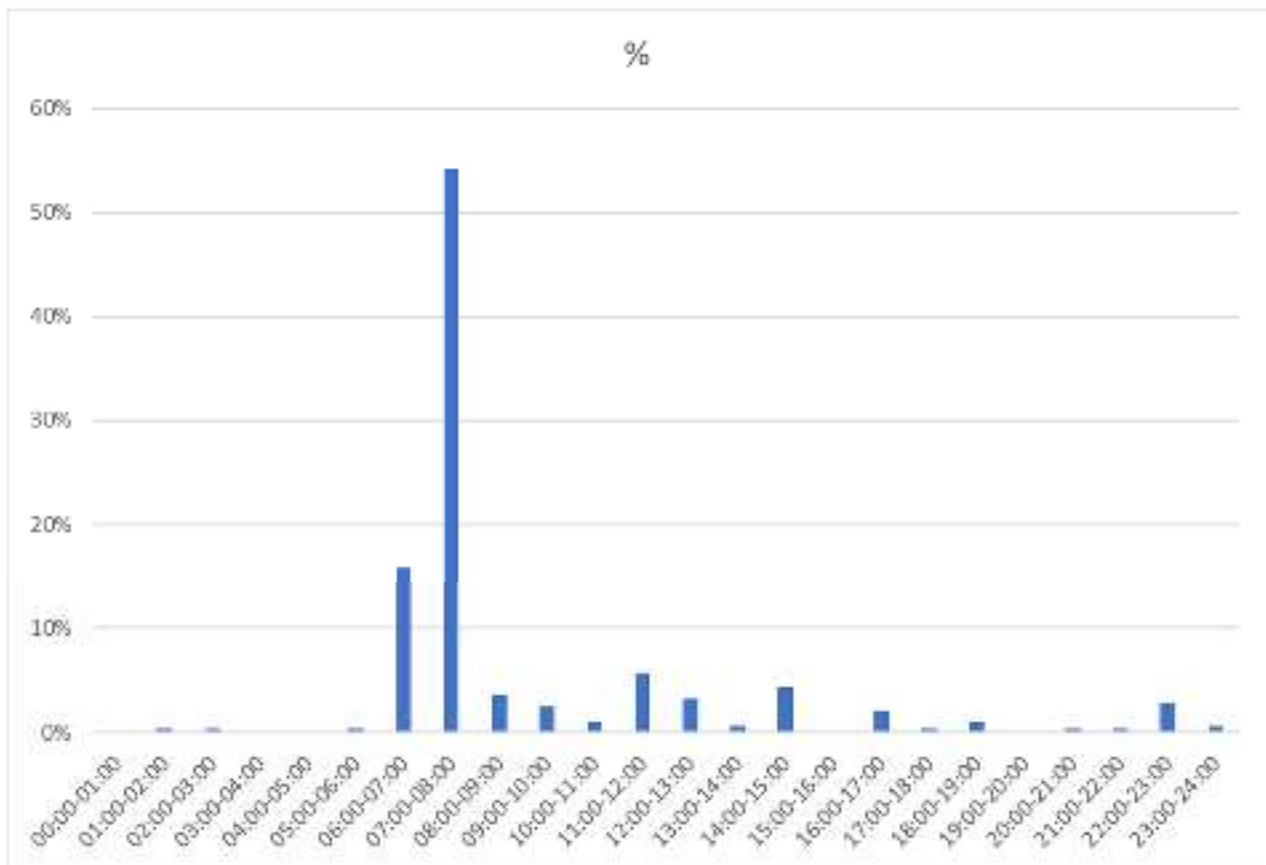


Figure 14 Profile of Arrival to Site

It is assumed that the network peak is 08:00-09:00 in the AM and 17:00-18:00 in the PM. This would suggest that the number of arrivals in the AM and PM would be c. 4% of the total car parking spaces in the AM and 1% in the PM.

In order to offer a conservative assessment, the development peak between 07:00 and 08:00 was used. This would suggest that the number of arrivals would be 56% of the number of car parking spaces.

There is a total of 121 car parking spaces proposed for the development. It is also assumed that the trips are reciprocal i.e., the rate of arrivals is the same as the rate of departures. Therefore, there would be up to 60 arrivals and 60 departures during the AM and PM peaks.

The proposed peak hour trip rates are shown in Table 11 below.

Weekday Trip Generation	AM Peak (08:00 – 09:00)		PM Peak (17:00-18:00)	
	Departures	Arrivals	Departures	Arrivals
Staff	67	67	67	67
<b>Two Way Total</b>	<b>134</b>		<b>134</b>	

**Table 11 Table Predicted Arrivals/Departures**

It can be seen from the above that the total vehicle movements generated by the proposed development will be 6 arrivals and 67 departures in the AM peak (two-way total of 134). The total number of vehicle movements in the PM peak hour will be 67 arrivals and 67 departures (two-way total of 134).

Given the low volume of traffic produced by the proposed development in its operational phase, it is concluded that the proposed development will have a very minor impact on traffic and further junction analysis is not required.

#### 4.5.3 Trip Generation Comparisons

A comparison of the trips generated by the existing land use, as estimated by TRICS, and the future land use is illustrated in the figure below.

Peak Hour Trips					
Trip Generation from TRICS	Units	Weekday AM 08:00-09:00		Weekday PM 17:00-18:00	
		Arrivals	Departures	Arrivals	Departures
Usage					
Existing Development	76,800 sq. m	316	43	58	286
Proposed Development	121 car parking spaces	67	67	67	67
<b>Difference</b>		<b>-249</b>	<b>24</b>	<b>9</b>	<b>-219</b>
<b>Two Way Difference</b>		<b>-225</b>		<b>-209</b>	

**Table 12 Trip Generation Comparison**

It can be seen from the table above that there will be a reduction of up to 225 trips during the AM peak and a reduction of up to 209 trips in the PM peak if the site is redeveloped compared to the existing land use.



#### 4.5.4 Operational Phase – Car Parking Spaces

The existing development has the benefit of c. 590 car parking spaces. As a result of the redevelopment of the site a total of 121 car parking spaces will be provided.

There is a direct correlation between the number of car parking spaces provided on site and the number of trips generated by the site. Reducing the number of car parking spaces by 85% will have a similar impact on the number of trips generated by the site.

It is therefore logical to concluded that the development will have a positive impact on the local road network by reducing the number of vehicles that will use local junctions. This would result in a reduction in congestions and delays locally.

#### 4.6 Summary

It has been demonstrated in Section 4.5 and 4.6 of this report that the re-development of the site will result a fewer number of trips generated by the site. It is therefore logical to concluded that the development will have a positive impact on the local road network by reducing the number of vehicles that will use local junctions. This would result in a reduction in congestions and delays locally.

## 5 CONCLUSION

### 5.1 Summary

This Traffic and Transport Assessment has been prepared by Pinnacle Consulting Engineers in support of a planning application for a data centre at Dyffryn Lane, Imperial Park, Coedkernew, Newport, Wales NP10 8BE.

The application site is situated to the south of the M4 Motorway, southeast of junction 29. The proposed development is located at National Grid Reference (NGR) ST 28267 84090 (Easting 328267, Northing 328267, 184090) at Dyffryn Lane, Imperial Park, Coedkernew, Newport, Wales NP10 8BE.

The site is a brownfield site with existing building with a developable area of approximately 76,800 sq. m.

The site is bound to the south by the Dyffryn Lane, to the west by Church Lane, to the north by industrial units and to the east by Celtic Way.

The site is currently accessed via a roundabout off Church Lane and Dyffryn Lane.

The Proposed Development will be accessed using the existing access road via Celtic Way or Church Lane.

### 5.2 Development Proposals

The intention of the project is to establish a campus for Hyperscale Data Centres on the site of the former Quinn Radiator Factory,

The proposed end-user is a global data centre operator, who is intending to establish a new regional centre in Wales. For this operator, a regional centre consists of a cluster of independent data centre locations; the operator is intending to invest in multiple locations in and around greater Cardiff.

### 5.3 Development Access

Access to the development will be provided via the M4, R48 and Dyffryn Lane.

### 5.4 Parking

A total of 121 car park spaces will be provided. Once completed, it is estimated that there would be 120 employees on site at any one time with an estimated 20 visitors giving a peak parking demand of 140 car parking spaces.

A total of 40 cycle parking spaces will be provided for the development.

### 5.5 Servicing

The proposed development has been designed such that service vehicles, including fire tenders and refuse vehicles, can circulate internally throughout the development.

## 5.6 Construction Impact

Based on a comparison between the number of OGV and HGV trips using TRICS data for the existing land use and estimated peak construction movements there will be no impact during the construction phase on local road networks.

At each stage in the construction process (demolition, site clearance, construction/fitout) the number of trips produced through the working day is less than the number of trips that the original land use generated during its peak phase.

For site operatives who travel to/from the development in cars, this number of construction vehicle movements is considered to be relatively low compared to the wider road network and operational traffic especially given that these trips are already existing on the network but are diverted to the proposed development.

On that basis, it is assumed that the construction phase of the proposed development will have less of an impact on the local highway network compared to the operational phase of the original land use.

## 5.7 Operational Impact

There will be a reduction of up to 225 trips during the AM peak and a reduction of up to 209 trips in the PM peak if the site is redeveloped compared to the existing land use.

As a result, it is concluded that the proposed development will have a very minor impact on traffic and further junction analysis is not required.

It is therefore logical to conclude that the development will have a positive impact on the local road network by reducing the number of vehicles that will use local junctions. This would result in a reduction in congestions and delays locally.

Therefore, the proposed development will have a very minor impact on traffic and further junction analysis is not required.

## 5.8 Conclusion

This impact assessment has confirmed that the proposed access arrangements would adequately accommodate anticipated levels of traffic visitation and that as such the traffic generated by the development would have no material adverse impact on the operation of all junctions modelled.

It has been shown by the application of recognised assessment techniques that there is a marginal uplift in traffic levels arising from the development and the distribution of resultant flows around the adjacent road network. The resulting flows and movements can be accommodated by the neighbouring junctions with marginal congestion and delays expected at these junctions.

The movements and improvements to the junction will ensure there are minimal traffic impacts as a result of the development.

Accordingly, there are no reasons in relation to traffic and transportation aspects why this scheme should not be granted planning permission, and with this in mind the Planning Authority is respectfully requested to recommend a grant of planning permission.

## Appendix A – TRICS Data

Calculation Reference: AUDIT-800401-220728-0748

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	BD BEDFORDSHIRE	1 days
	HC HAMPSHIRE	2 days
	WS WEST SUSSEX	2 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	1 days
	GS GLOUCESTERSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	2 days
08	NORTH WEST	
	CH CHESHIRE	3 days
	LC LANCASHIRE	3 days
09	NORTH	
	CB CUMBRIA	2 days
	TV TEES VALLEY	1 days
10	WALES	
	CF CARDIFF	1 days
	VG VALE OF GLAMORGAN	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: 150 to 67459 (units: sqm)  
Range Selected by User: 150 to 67459 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 22/11/21

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

Selected survey days:

Monday	3 days
Tuesday	5 days
Wednesday	5 days
Thursday	11 days
Friday	4 days

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

Selected survey types:

Manual count	28 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)	10
Edge of Town	14
Neighbourhood Centre (PPS6 Local Centre)	3
Free Standing (PPS6 Out of Town)	1

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

Selected Location Sub Categories:

Industrial Zone	23
Development Zone	1
Village	3
Out of Town	1

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

Secondary Filtering selection:

Use Class:

Not Known 28 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	3 days
5,001 to 10,000	5 days
10,001 to 15,000	6 days
15,001 to 20,000	1 days
20,001 to 25,000	4 days
25,001 to 50,000	7 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	3 days
75,001 to 100,000	4 days
100,001 to 125,000	2 days
125,001 to 250,000	11 days
250,001 to 500,000	4 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	13 days
1.1 to 1.5	13 days
1.6 to 2.0	2 days

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

Travel Plan:

Yes	2 days
No	26 days

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

PTAL Rating:

No PTAL Present	28 days
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This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	BD-02-C-01	PUMPS, MOTORS & FANS	BEDFORDSHIRE
	POSTLEY ROAD		
	BEDFORD		
	KEMPSTON		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1045 sqm	
	Survey date: THURSDAY	15/10/20	Survey Type: MANUAL
2	BR-02-C-02	STAINLESS FITTINGS	BRISTOL CITY
	SOUTH LIBERTY LANE		
	BRISTOL		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1475 sqm	
	Survey date: TUESDAY	22/09/15	Survey Type: MANUAL
3	CB-02-C-01	DOMINO'S PIZZA	CUMBRIA
	COWPER ROAD		
	PENRITH		
	GILWILLY IND. ESTATE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2950 sqm	
	Survey date: TUESDAY	10/06/14	Survey Type: MANUAL
4	CB-02-C-02	STEEL FABRI CATION	CUMBRIA
	BLACKDYKE ROAD		
	CARLISLE		
	KINGSTOWN IND. ESTATE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	715 sqm	
	Survey date: FRIDAY	15/10/21	Survey Type: MANUAL
5	CF-02-C-02	BAKERY	CARDIFF
	MAES-Y-COED ROAD		
	CARDIFF		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	14125 sqm	
	Survey date: THURSDAY	06/10/16	Survey Type: MANUAL
6	CH-02-C-02	INDUSTRIAL MATERIALS	CHESHIRE
	JUPITER DRIVE		
	CHESTER		
	CHESTER W. EMP. PARK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	8100 sqm	
	Survey date: WEDNESDAY	19/11/14	Survey Type: MANUAL
7	CH-02-C-03	OFFICE FURNITURE	CHESHIRE
	BRUNEL ROAD		
	MACCLESFIELD		
	LYME GREEN BUS. PARK		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	6658 sqm	
	Survey date: MONDAY	19/09/16	Survey Type: MANUAL
8	CH-02-C-04	FABRICS MANUFACTURE	CHESHIRE
	CHARTER WAY		
	MACCLESFIELD		
	HURDSFIELD		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	3200 sqm	
	Survey date: FRIDAY	07/05/21	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	DS-02-C-02 PONTEFRACT STREET DERBY	ENGINEERED PRODUCTS	DERBYSHIRE
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	2600 sqm	
	Survey date: THURSDAY	25/06/15	Survey Type: MANUAL
10	DV-02-C-02 GRACE ROAD SOUTH EXETER	ENERGY RECOVERY FACILITY	DEVON
	MARSH BARTON TRAD. EST. Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	3513 sqm	
	Survey date: THURSDAY	06/07/17	Survey Type: MANUAL
11	GS-02-C-02 DAVY WAY GLOUCESTER HARDWICKE	MARINE ENGINE PRODUCTION	GLOUCESTERSHIRE
	Edge of Town Industrial Zone		
	Total Gross floor area:	1630 sqm	
	Survey date: FRIDAY	23/04/21	Survey Type: MANUAL
12	HC-02-C-01 JAYS CLOSE BASINGSTOKE	ENGINEERING COMPANY	HAMPSHIRE
	Edge of Town Industrial Zone		
	Total Gross floor area:	3000 sqm	
	Survey date: THURSDAY	16/06/16	Survey Type: MANUAL
13	HC-02-C-02 LONDON ROAD LAVERSTOKE	GIN DISTILLERY	HAMPSHIRE
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total Gross floor area:	8000 sqm	
	Survey date: WEDNESDAY	09/05/18	Survey Type: MANUAL
14	LC-02-C-03 GOLDEN HILL LANE LEYLAND	TIMBER SUPPLIES	LANCASHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone		
	Total Gross floor area:	150 sqm	
	Survey date: TUESDAY	06/11/18	Survey Type: MANUAL
15	LC-02-C-04 CHORLEY ROAD BLACKPOOL LITTLE CARLETON	POWDER COATINGS	LANCASHIRE
	Edge of Town Industrial Zone		
	Total Gross floor area:	1010 sqm	
	Survey date: THURSDAY	20/06/19	Survey Type: MANUAL
16	LC-02-C-05 FURNES DRIVE POULTON-LE-FYLDE	NUTRITION MANUFACTURE	LANCASHIRE
	Edge of Town Industrial Zone		
	Total Gross floor area:	775 sqm	
	Survey date: WEDNESDAY	30/06/21	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17	NF-02-C-03	SHEET METAL CONTRACTOR	NORFOLK
	ELVIN WAY NORWICH HELLESDON Edge of Town Industrial Zone Total Gross floor area: 260 sqm Survey date: THURSDAY 07/11/19 Survey Type: MANUAL		
18	NF-02-C-04	EXHIBITION DESIGN & MANUF.	NORFOLK
	FLETCHER WAY NORWICH UPPER HELLESDON Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 690 sqm Survey date: THURSDAY 14/11/19 Survey Type: MANUAL		
19	NR-02-C-02	RENEWABLE ENGINEERING	NORTHAMPTONSHIRE
	TREVITHICK ROAD CORBY  Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 702 sqm Survey date: THURSDAY 22/10/20 Survey Type: MANUAL		
20	TV-02-C-02	FLUID ENGINEERING	TEES VALLEY
	PARKVIEW ROAD WEST HARTLEPOOL  Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 1050 sqm Survey date: FRIDAY 04/09/20 Survey Type: MANUAL		
21	VG-02-C-01	ALCOHOL ANALYSIS PRODUCTS	VALE OF GLAMORGAN
	VERLON CLOSE BARRY  Edge of Town Industrial Zone Total Gross floor area: 1500 sqm Survey date: THURSDAY 06/05/21 Survey Type: MANUAL		
22	WK-02-C-01	MACHINE ENGINEERING	WARWICKSHIRE
	CASTLE MOUND WAY RUGBY  Edge of Town Industrial Zone Total Gross floor area: 9216 sqm Survey date: WEDNESDAY 10/11/21 Survey Type: MANUAL		
23	WM-02-C-04	FOUNDRY	WEST MIDLANDS
	STOURVALE ROAD STOURBRIDGE LYE Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 4324 sqm Survey date: TUESDAY 21/11/17 Survey Type: MANUAL		
24	WM-02-C-05	INDIAN CATERING	WEST MIDLANDS
	ICKNIELD STREET BIRMINGHAM HOCKLEY Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 256 sqm Survey date: MONDAY 22/11/21 Survey Type: MANUAL		



LIST OF SITES relevant to selection parameters (Cont.)

25	WS-02-C-02 AVIATION COMPANY MAYDWELL AVENUE NEAR HORSHAM SLINFOLD Free Standing (PPS6 Out of Town) Out of Town Total Gross floor area: 11375 sqm Survey date: THURSDAY 23/01/14	WEST SUSSEX          Survey Type: MANUAL WEST SUSSEX
26	WS-02-C-03 ROLLS ROYCE HQ & PLANT STANE STREET NEAR CHICHESTER WESTHAMPNETT Neighbourhood Centre (PPS6 Local Centre) Village Total Gross floor area: 67459 sqm Survey date: TUESDAY 24/09/19	WEST SUSSEX          Survey Type: MANUAL WEST SUSSEX
27	WY-02-C-02 FLUID SYSTEMS BROWN LANE WEST LEEDS HOLBECK Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 13350 sqm Survey date: MONDAY 19/10/15	WEST YORKSHIRE          Survey Type: MANUAL WEST YORKSHIRE
28	WY-02-C-03 COMPUTER MANUFACTURER INMOOR ROAD NEAR BRADFORD BIRKENS HAW Neighbourhood Centre (PPS6 Local Centre) Village Total Gross floor area: 1890 sqm Survey date: WEDNESDAY 10/10/18	WEST YORKSHIRE          Survey Type: MANUAL

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

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

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	7	12296	0.170	7	12296	0.001	7	12296	0.171
05:30 - 06:00	7	12296	0.264	7	12296	0.003	7	12296	0.267
06:00 - 06:30	10	11243	0.076	10	11243	0.034	10	11243	0.110
06:30 - 07:00	10	11243	0.215	10	11243	0.020	10	11243	0.235
07:00 - 07:30	26	6495	0.175	26	6495	0.016	26	6495	0.191
07:30 - 08:00	26	6495	0.162	26	6495	0.026	26	6495	0.188
08:00 - 08:30	27	6325	0.242	27	6325	0.023	27	6325	0.265
08:30 - 09:00	27	6325	0.142	27	6325	0.029	27	6325	0.171
09:00 - 09:30	28	6108	0.083	28	6108	0.033	28	6108	0.116
09:30 - 10:00	28	6108	0.085	28	6108	0.062	28	6108	0.147
10:00 - 10:30	28	6108	0.070	28	6108	0.044	28	6108	0.114
10:30 - 11:00	28	6108	0.073	28	6108	0.053	28	6108	0.126
11:00 - 11:30	28	6108	0.046	28	6108	0.053	28	6108	0.099
11:30 - 12:00	28	6108	0.042	28	6108	0.041	28	6108	0.083
12:00 - 12:30	28	6108	0.060	28	6108	0.067	28	6108	0.127
12:30 - 13:00	28	6108	0.066	28	6108	0.075	28	6108	0.141
13:00 - 13:30	28	6108	0.082	28	6108	0.081	28	6108	0.163
13:30 - 14:00	28	6108	0.105	28	6108	0.065	28	6108	0.170
14:00 - 14:30	28	6108	0.120	28	6108	0.061	28	6108	0.181
14:30 - 15:00	28	6108	0.141	28	6108	0.229	28	6108	0.370
15:00 - 15:30	28	6108	0.038	28	6108	0.109	28	6108	0.147
15:30 - 16:00	28	6108	0.034	28	6108	0.139	28	6108	0.173
16:00 - 16:30	28	6108	0.040	28	6108	0.184	28	6108	0.224
16:30 - 17:00	28	6108	0.029	28	6108	0.132	28	6108	0.161
17:00 - 17:30	28	6108	0.030	28	6108	0.176	28	6108	0.206
17:30 - 18:00	28	6108	0.040	28	6108	0.172	28	6108	0.212
18:00 - 18:30	28	6108	0.025	28	6108	0.120	28	6108	0.145
18:30 - 19:00	28	6108	0.012	28	6108	0.048	28	6108	0.060
19:00 - 19:30	9	4249	0.029	9	4249	0.026	9	4249	0.055
19:30 - 20:00	9	4249	0.010	9	4249	0.042	9	4249	0.052
20:00 - 20:30	7	3802	0.008	7	3802	0.053	7	3802	0.061
20:30 - 21:00	7	3802	0.008	7	3802	0.023	7	3802	0.031
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			2.722			2.240			4.962

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

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

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#### Parameter summary

Trip rate parameter range selected:	150 - 67459 (units: sqm)
Survey date range:	01/01/14 - 22/11/21
Number of weekdays (Monday-Friday):	28
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT  
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	7	12296	0.000	7	12296	0.000	7	12296	0.000
05:30 - 06:00	7	12296	0.001	7	12296	0.001	7	12296	0.002
06:00 - 06:30	10	11243	0.000	10	11243	0.000	10	11243	0.000
06:30 - 07:00	10	11243	0.000	10	11243	0.000	10	11243	0.000
07:00 - 07:30	26	6495	0.000	26	6495	0.000	26	6495	0.000
07:30 - 08:00	26	6495	0.000	26	6495	0.000	26	6495	0.000
08:00 - 08:30	27	6325	0.000	27	6325	0.000	27	6325	0.000
08:30 - 09:00	27	6325	0.000	27	6325	0.000	27	6325	0.000
09:00 - 09:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
09:30 - 10:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
10:00 - 10:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
10:30 - 11:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
11:00 - 11:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
11:30 - 12:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
12:00 - 12:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
12:30 - 13:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
13:00 - 13:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
13:30 - 14:00	28	6108	0.000	28	6108	0.000	28	6108	0.000
14:00 - 14:30	28	6108	0.002	28	6108	0.002	28	6108	0.004
14:30 - 15:00	28	6108	0.000	28	6108	0.000	28	6108	0.000
15:00 - 15:30	28	6108	0.003	28	6108	0.003	28	6108	0.006
15:30 - 16:00	28	6108	0.000	28	6108	0.000	28	6108	0.000
16:00 - 16:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
16:30 - 17:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
17:00 - 17:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
17:30 - 18:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
18:00 - 18:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
18:30 - 19:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
19:00 - 19:30	9	4249	0.000	9	4249	0.000	9	4249	0.000
19:30 - 20:00	9	4249	0.000	9	4249	0.000	9	4249	0.000
20:00 - 20:30	7	3802	0.000	7	3802	0.000	7	3802	0.000
20:30 - 21:00	7	3802	0.000	7	3802	0.000	7	3802	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.019			0.019			0.038

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/C - INDUSTRIAL UNIT

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	7	12296	0.001	7	12296	0.001	7	12296	0.002
05:30 - 06:00	7	12296	0.005	7	12296	0.000	7	12296	0.005
06:00 - 06:30	10	11243	0.002	10	11243	0.002	10	11243	0.004
06:30 - 07:00	10	11243	0.005	10	11243	0.003	10	11243	0.008
07:00 - 07:30	26	6495	0.009	26	6495	0.004	26	6495	0.013
07:30 - 08:00	26	6495	0.006	26	6495	0.008	26	6495	0.014
08:00 - 08:30	27	6325	0.011	27	6325	0.007	27	6325	0.018
08:30 - 09:00	27	6325	0.012	27	6325	0.008	27	6325	0.020
09:00 - 09:30	28	6108	0.015	28	6108	0.009	28	6108	0.024
09:30 - 10:00	28	6108	0.017	28	6108	0.014	28	6108	0.031
10:00 - 10:30	28	6108	0.016	28	6108	0.011	28	6108	0.027
10:30 - 11:00	28	6108	0.016	28	6108	0.009	28	6108	0.025
11:00 - 11:30	28	6108	0.012	28	6108	0.013	28	6108	0.025
11:30 - 12:00	28	6108	0.010	28	6108	0.010	28	6108	0.020
12:00 - 12:30	28	6108	0.015	28	6108	0.012	28	6108	0.027
12:30 - 13:00	28	6108	0.009	28	6108	0.012	28	6108	0.021
13:00 - 13:30	28	6108	0.015	28	6108	0.011	28	6108	0.026
13:30 - 14:00	28	6108	0.008	28	6108	0.007	28	6108	0.015
14:00 - 14:30	28	6108	0.007	28	6108	0.006	28	6108	0.013
14:30 - 15:00	28	6108	0.006	28	6108	0.006	28	6108	0.012
15:00 - 15:30	28	6108	0.007	28	6108	0.007	28	6108	0.014
15:30 - 16:00	28	6108	0.005	28	6108	0.006	28	6108	0.011
16:00 - 16:30	28	6108	0.008	28	6108	0.009	28	6108	0.017
16:30 - 17:00	28	6108	0.002	28	6108	0.005	28	6108	0.007
17:00 - 17:30	28	6108	0.006	28	6108	0.004	28	6108	0.010
17:30 - 18:00	28	6108	0.002	28	6108	0.002	28	6108	0.004
18:00 - 18:30	28	6108	0.001	28	6108	0.004	28	6108	0.005
18:30 - 19:00	28	6108	0.001	28	6108	0.003	28	6108	0.004
19:00 - 19:30	9	4249	0.000	9	4249	0.008	9	4249	0.008
19:30 - 20:00	9	4249	0.003	9	4249	0.008	9	4249	0.011
20:00 - 20:30	7	3802	0.000	7	3802	0.008	7	3802	0.008
20:30 - 21:00	7	3802	0.000	7	3802	0.011	7	3802	0.011
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.232			0.228			0.460

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/C - INDUSTRIAL UNIT

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	7	12296	0.000	7	12296	0.000	7	12296	0.000
05:30 - 06:00	7	12296	0.002	7	12296	0.002	7	12296	0.004
06:00 - 06:30	10	11243	0.001	10	11243	0.001	10	11243	0.002
06:30 - 07:00	10	11243	0.001	10	11243	0.001	10	11243	0.002
07:00 - 07:30	26	6495	0.001	26	6495	0.001	26	6495	0.002
07:30 - 08:00	26	6495	0.001	26	6495	0.001	26	6495	0.002
08:00 - 08:30	27	6325	0.001	27	6325	0.001	27	6325	0.002
08:30 - 09:00	27	6325	0.001	27	6325	0.001	27	6325	0.002
09:00 - 09:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
09:30 - 10:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
10:00 - 10:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
10:30 - 11:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
11:00 - 11:30	28	6108	0.000	28	6108	0.001	28	6108	0.001
11:30 - 12:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
12:00 - 12:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
12:30 - 13:00	28	6108	0.002	28	6108	0.002	28	6108	0.004
13:00 - 13:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
13:30 - 14:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
14:00 - 14:30	28	6108	0.001	28	6108	0.002	28	6108	0.003
14:30 - 15:00	28	6108	0.000	28	6108	0.000	28	6108	0.000
15:00 - 15:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
15:30 - 16:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
16:00 - 16:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
16:30 - 17:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
17:00 - 17:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
17:30 - 18:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
18:00 - 18:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
18:30 - 19:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
19:00 - 19:30	9	4249	0.000	9	4249	0.000	9	4249	0.000
19:30 - 20:00	9	4249	0.000	9	4249	0.000	9	4249	0.000
20:00 - 20:30	7	3802	0.000	7	3802	0.000	7	3802	0.000
20:30 - 21:00	7	3802	0.000	7	3802	0.000	7	3802	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.023			0.025			0.048

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/C - INDUSTRIAL UNIT  
 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	7	12296	0.003	7	12296	0.000	7	12296	0.003
05:30 - 06:00	7	12296	0.010	7	12296	0.000	7	12296	0.010
06:00 - 06:30	10	11243	0.006	10	11243	0.003	10	11243	0.009
06:30 - 07:00	10	11243	0.011	10	11243	0.000	10	11243	0.011
07:00 - 07:30	26	6495	0.008	26	6495	0.001	26	6495	0.009
07:30 - 08:00	26	6495	0.006	26	6495	0.000	26	6495	0.006
08:00 - 08:30	27	6325	0.005	27	6325	0.000	27	6325	0.005
08:30 - 09:00	27	6325	0.002	27	6325	0.000	27	6325	0.002
09:00 - 09:30	28	6108	0.002	28	6108	0.000	28	6108	0.002
09:30 - 10:00	28	6108	0.000	28	6108	0.000	28	6108	0.000
10:00 - 10:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
10:30 - 11:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
11:00 - 11:30	28	6108	0.001	28	6108	0.000	28	6108	0.001
11:30 - 12:00	28	6108	0.000	28	6108	0.000	28	6108	0.000
12:00 - 12:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
12:30 - 13:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
13:00 - 13:30	28	6108	0.003	28	6108	0.002	28	6108	0.005
13:30 - 14:00	28	6108	0.003	28	6108	0.000	28	6108	0.003
14:00 - 14:30	28	6108	0.005	28	6108	0.002	28	6108	0.007
14:30 - 15:00	28	6108	0.006	28	6108	0.008	28	6108	0.014
15:00 - 15:30	28	6108	0.000	28	6108	0.004	28	6108	0.004
15:30 - 16:00	28	6108	0.000	28	6108	0.001	28	6108	0.001
16:00 - 16:30	28	6108	0.001	28	6108	0.005	28	6108	0.006
16:30 - 17:00	28	6108	0.000	28	6108	0.009	28	6108	0.009
17:00 - 17:30	28	6108	0.003	28	6108	0.008	28	6108	0.011
17:30 - 18:00	28	6108	0.003	28	6108	0.001	28	6108	0.004
18:00 - 18:30	28	6108	0.001	28	6108	0.005	28	6108	0.006
18:30 - 19:00	28	6108	0.000	28	6108	0.001	28	6108	0.001
19:00 - 19:30	9	4249	0.000	9	4249	0.000	9	4249	0.000
19:30 - 20:00	9	4249	0.000	9	4249	0.000	9	4249	0.000
20:00 - 20:30	7	3802	0.000	7	3802	0.000	7	3802	0.000
20:30 - 21:00	7	3802	0.000	7	3802	0.000	7	3802	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.081			0.052			0.133

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/C - INDUSTRIAL UNIT  
**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	7	12296	0.158	7	12296	0.000	7	12296	0.158
05:30 - 06:00	7	12296	0.236	7	12296	0.000	7	12296	0.236
06:00 - 06:30	10	11243	0.061	10	11243	0.028	10	11243	0.089
06:30 - 07:00	10	11243	0.201	10	11243	0.015	10	11243	0.216
07:00 - 07:30	26	6495	0.153	26	6495	0.009	26	6495	0.162
07:30 - 08:00	26	6495	0.145	26	6495	0.015	26	6495	0.160
08:00 - 08:30	27	6325	0.221	27	6325	0.011	27	6325	0.232
08:30 - 09:00	27	6325	0.115	27	6325	0.009	27	6325	0.124
09:00 - 09:30	28	6108	0.054	28	6108	0.013	28	6108	0.067
09:30 - 10:00	28	6108	0.049	28	6108	0.030	28	6108	0.079
10:00 - 10:30	28	6108	0.036	28	6108	0.021	28	6108	0.057
10:30 - 11:00	28	6108	0.032	28	6108	0.022	28	6108	0.054
11:00 - 11:30	28	6108	0.021	28	6108	0.026	28	6108	0.047
11:30 - 12:00	28	6108	0.018	28	6108	0.018	28	6108	0.036
12:00 - 12:30	28	6108	0.030	28	6108	0.040	28	6108	0.070
12:30 - 13:00	28	6108	0.037	28	6108	0.046	28	6108	0.083
13:00 - 13:30	28	6108	0.053	28	6108	0.052	28	6108	0.105
13:30 - 14:00	28	6108	0.082	28	6108	0.044	28	6108	0.126
14:00 - 14:30	28	6108	0.091	28	6108	0.034	28	6108	0.125
14:30 - 15:00	28	6108	0.115	28	6108	0.201	28	6108	0.316
15:00 - 15:30	28	6108	0.014	28	6108	0.078	28	6108	0.092
15:30 - 16:00	28	6108	0.016	28	6108	0.119	28	6108	0.135
16:00 - 16:30	28	6108	0.023	28	6108	0.150	28	6108	0.173
16:30 - 17:00	28	6108	0.018	28	6108	0.115	28	6108	0.133
17:00 - 17:30	28	6108	0.018	28	6108	0.161	28	6108	0.179
17:30 - 18:00	28	6108	0.033	28	6108	0.161	28	6108	0.194
18:00 - 18:30	28	6108	0.020	28	6108	0.112	28	6108	0.132
18:30 - 19:00	28	6108	0.009	28	6108	0.040	28	6108	0.049
19:00 - 19:30	9	4249	0.026	9	4249	0.018	9	4249	0.044
19:30 - 20:00	9	4249	0.008	9	4249	0.031	9	4249	0.039
20:00 - 20:30	7	3802	0.004	7	3802	0.041	7	3802	0.045
20:30 - 21:00	7	3802	0.008	7	3802	0.008	7	3802	0.016
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			2.105			1.668			3.773

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/C - INDUSTRIAL UNIT

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	7	12296	0.008	7	12296	0.000	7	12296	0.008
05:30 - 06:00	7	12296	0.008	7	12296	0.000	7	12296	0.008
06:00 - 06:30	10	11243	0.009	10	11243	0.004	10	11243	0.013
06:30 - 07:00	10	11243	0.007	10	11243	0.001	10	11243	0.008
07:00 - 07:30	26	6495	0.011	26	6495	0.002	26	6495	0.013
07:30 - 08:00	26	6495	0.007	26	6495	0.002	26	6495	0.009
08:00 - 08:30	27	6325	0.009	27	6325	0.005	27	6325	0.014
08:30 - 09:00	27	6325	0.013	27	6325	0.011	27	6325	0.024
09:00 - 09:30	28	6108	0.013	28	6108	0.011	28	6108	0.024
09:30 - 10:00	28	6108	0.017	28	6108	0.015	28	6108	0.032
10:00 - 10:30	28	6108	0.016	28	6108	0.012	28	6108	0.028
10:30 - 11:00	28	6108	0.022	28	6108	0.019	28	6108	0.041
11:00 - 11:30	28	6108	0.012	28	6108	0.013	28	6108	0.025
11:30 - 12:00	28	6108	0.012	28	6108	0.012	28	6108	0.024
12:00 - 12:30	28	6108	0.015	28	6108	0.014	28	6108	0.029
12:30 - 13:00	28	6108	0.016	28	6108	0.015	28	6108	0.031
13:00 - 13:30	28	6108	0.013	28	6108	0.017	28	6108	0.030
13:30 - 14:00	28	6108	0.010	28	6108	0.013	28	6108	0.023
14:00 - 14:30	28	6108	0.016	28	6108	0.015	28	6108	0.031
14:30 - 15:00	28	6108	0.016	28	6108	0.018	28	6108	0.034
15:00 - 15:30	28	6108	0.013	28	6108	0.018	28	6108	0.031
15:30 - 16:00	28	6108	0.011	28	6108	0.012	28	6108	0.023
16:00 - 16:30	28	6108	0.008	28	6108	0.022	28	6108	0.030
16:30 - 17:00	28	6108	0.006	28	6108	0.010	28	6108	0.016
17:00 - 17:30	28	6108	0.005	28	6108	0.009	28	6108	0.014
17:30 - 18:00	28	6108	0.004	28	6108	0.006	28	6108	0.010
18:00 - 18:30	28	6108	0.002	28	6108	0.002	28	6108	0.004
18:30 - 19:00	28	6108	0.001	28	6108	0.002	28	6108	0.003
19:00 - 19:30	9	4249	0.003	9	4249	0.000	9	4249	0.003
19:30 - 20:00	9	4249	0.000	9	4249	0.000	9	4249	0.000
20:00 - 20:30	7	3802	0.004	7	3802	0.004	7	3802	0.008
20:30 - 21:00	7	3802	0.000	7	3802	0.004	7	3802	0.004
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.307			0.288			0.595

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/C - INDUSTRIAL UNIT

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	7	12296	0.002	7	12296	0.000	7	12296	0.002
05:30 - 06:00	7	12296	0.012	7	12296	0.000	7	12296	0.012
06:00 - 06:30	10	11243	0.003	10	11243	0.000	10	11243	0.003
06:30 - 07:00	10	11243	0.001	10	11243	0.000	10	11243	0.001
07:00 - 07:30	26	6495	0.001	26	6495	0.000	26	6495	0.001
07:30 - 08:00	26	6495	0.003	26	6495	0.000	26	6495	0.003
08:00 - 08:30	27	6325	0.001	27	6325	0.000	27	6325	0.001
08:30 - 09:00	27	6325	0.001	27	6325	0.001	27	6325	0.002
09:00 - 09:30	28	6108	0.001	28	6108	0.000	28	6108	0.001
09:30 - 10:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
10:00 - 10:30	28	6108	0.001	28	6108	0.001	28	6108	0.002
10:30 - 11:00	28	6108	0.000	28	6108	0.000	28	6108	0.000
11:00 - 11:30	28	6108	0.000	28	6108	0.000	28	6108	0.000
11:30 - 12:00	28	6108	0.001	28	6108	0.000	28	6108	0.001
12:00 - 12:30	28	6108	0.000	28	6108	0.001	28	6108	0.001
12:30 - 13:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
13:00 - 13:30	28	6108	0.000	28	6108	0.001	28	6108	0.001
13:30 - 14:00	28	6108	0.003	28	6108	0.001	28	6108	0.004
14:00 - 14:30	28	6108	0.002	28	6108	0.003	28	6108	0.005
14:30 - 15:00	28	6108	0.004	28	6108	0.004	28	6108	0.008
15:00 - 15:30	28	6108	0.000	28	6108	0.002	28	6108	0.002
15:30 - 16:00	28	6108	0.001	28	6108	0.001	28	6108	0.002
16:00 - 16:30	28	6108	0.000	28	6108	0.002	28	6108	0.002
16:30 - 17:00	28	6108	0.000	28	6108	0.001	28	6108	0.001
17:00 - 17:30	28	6108	0.000	28	6108	0.002	28	6108	0.002
17:30 - 18:00	28	6108	0.000	28	6108	0.001	28	6108	0.001
18:00 - 18:30	28	6108	0.000	28	6108	0.001	28	6108	0.001
18:30 - 19:00	28	6108	0.000	28	6108	0.001	28	6108	0.001
19:00 - 19:30	9	4249	0.000	9	4249	0.000	9	4249	0.000
19:30 - 20:00	9	4249	0.000	9	4249	0.003	9	4249	0.003
20:00 - 20:30	7	3802	0.000	7	3802	0.000	7	3802	0.000
20:30 - 21:00	7	3802	0.000	7	3802	0.000	7	3802	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.039			0.028			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.

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Calculation Reference: AUDIT-800401-220826-0804

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	BD BEDFORDSHIRE	1 days
	HC HAMPSHIRE	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	1 days
	GS GLOUCESTERSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	3 days
	LC LANCASHIRE	3 days
09	NORTH	
	CB CUMBRIA	2 days
	TV TEES VALLEY	1 days
10	WALES	
	CF CARDIFF	1 days
	VG VALE OF GLAMORGAN	1 days

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

Primary Filtering selection:

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

Parameter: No of Employees  
 Actual Range: 2 to 372 (units: )  
 Range Selected by User: 0 to 2225 (units: )

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 22/11/21

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

Selected survey days:

Monday	3 days
Tuesday	4 days
Wednesday	3 days
Thursday	11 days
Friday	4 days

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

Selected survey types:

Manual count	25 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)	10
Edge of Town	14
Free Standing (PPS6 Out of Town)	1

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

Selected Location Sub Categories:

Industrial Zone	23
Development Zone	1
Out of Town	1

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

Secondary Filtering selection:

Use Class:

Not Known	25 days
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This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included



Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	4 days
10,001 to 15,000	6 days
15,001 to 20,000	1 days
20,001 to 25,000	4 days
25,001 to 50,000	7 days

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

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	3 days
75,001 to 100,000	3 days
100,001 to 125,000	2 days
125,001 to 250,000	10 days
250,001 to 500,000	4 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	12 days
1.1 to 1.5	12 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	1 days
No	24 days

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

PTAL Rating:

No PTAL Present	25 days
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This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	BD-02-C-01 POSTLEY ROAD BEDFORD KEMPSTON Edge of Town Industrial Zone Total No of Employees: 37 Survey date: THURSDAY 15/10/20	PUMPS, MOTORS & FANS	BEDFORDSHIRE	Survey Type: MANUAL
2	BR-02-C-02 SOUTH LIBERTY LANE BRISTOL  Edge of Town Industrial Zone Total No of Employees: 16 Survey date: TUESDAY 22/09/15	STAINLESS FITTINGS	BRISTOL CITY	Survey Type: MANUAL
3	CB-02-C-01 COWPER ROAD PENRITH GILWILLY IND. ESTATE Edge of Town Industrial Zone Total No of Employees: 70 Survey date: TUESDAY 10/06/14	DOMINO'S PIZZA	CUMBRIA	Survey Type: MANUAL
4	CB-02-C-02 BLACKDYKE ROAD CARLISLE KINGSTOWN IND. ESTATE Edge of Town Industrial Zone Total No of Employees: 9 Survey date: FRIDAY 15/10/21	STEEL FABRI CATION	CUMBRIA	Survey Type: MANUAL
5	CF-02-C-02 MAES-Y-COED ROAD CARDIFF  Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 225 Survey date: THURSDAY 06/10/16	BAKERY	CARDIFF	Survey Type: MANUAL
6	CH-02-C-02 JUPITER DRIVE CHESTER CHESTER W. EMP. PARK Edge of Town Industrial Zone Total No of Employees: 100 Survey date: WEDNESDAY 19/11/14	INDUSTRIAL MATERIALS	CHESHIRE	Survey Type: MANUAL
7	CH-02-C-03 BRUNEL ROAD MACCLESFIELD LYME GREEN BUS. PARK Edge of Town Development Zone Total No of Employees: 122 Survey date: MONDAY 19/09/16	OFFICE FURNITURE	CHESHIRE	Survey Type: MANUAL
8	CH-02-C-04 CHARTER WAY MACCLESFIELD HURDSFIELD Edge of Town Industrial Zone Total No of Employees: 28 Survey date: FRIDAY 07/05/21	FABRICS MANUFACTURE	CHESHIRE	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	DS-02-C-02 PONTEFRAC T STREET DERBY	ENGINEERED PRODUCTS	DERBYSHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 12 Survey date: THURSDAY 25/06/15		
	Survey Type: MANUAL		
10	DV-02-C-02 GRACE ROAD SOUTH EXETER	ENERGY RECOVERY FACILITY	DEVON
	MARSH BARTON TRAD. EST. Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 17 Survey date: THURSDAY 06/07/17		
	Survey Type: MANUAL		
11	GS-02-C-02 DAVY WAY GLOUCESTER HARDWICKE	MARINE ENGINE PRODUCTION	GLOUCESTERSHIRE
	Edge of Town Industrial Zone Total No of Employees: 43 Survey date: FRIDAY 23/04/21		
	Survey Type: MANUAL		
12	HC-02-C-01 JAYS CLOSE BASINGSTOKE	ENGINEERING COMPANY	HAMPSHIRE
	Edge of Town Industrial Zone Total No of Employees: 110 Survey date: THURSDAY 16/06/16		
	Survey Type: MANUAL		
13	LC-02-C-03 GOLDEN HILL LANE LEYLAND	TIMBER SUPPLIES	LANCASHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 2 Survey date: TUESDAY 06/11/18		
	Survey Type: MANUAL		
14	LC-02-C-04 CHORLEY ROAD BLACKPOOL LITTLE CARLETON	POWDER COATINGS	LANCASHIRE
	Edge of Town Industrial Zone Total No of Employees: 5 Survey date: THURSDAY 20/06/19		
	Survey Type: MANUAL		
15	LC-02-C-05 FURNESS DRIVE POULTON-LE-FYLDE	NUTRITION MANUFACTURE	LANCASHIRE
	Edge of Town Industrial Zone Total No of Employees: 8 Survey date: WEDNESDAY 30/06/21		
	Survey Type: MANUAL		
16	NF-02-C-03 ELVIN WAY NORWICH HELLESDON	SHEET METAL CONTRACTOR	NORFOLK
	Edge of Town Industrial Zone Total No of Employees: 8 Survey date: THURSDAY 07/11/19		
	Survey Type: MANUAL		

LIST OF SITES relevant to selection parameters (Cont.)

17	NF-02-C-04 FLETCHER WAY NORWICH UPPER HELLESDON Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 9 Survey date: THURSDAY 14/11/19	EXHIBITION DESIGN & MANUF.	NORFOLK	Survey Type: MANUAL
18	NR-02-C-02 TREVITHICK ROAD CORBY  Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 22 Survey date: THURSDAY 22/10/20	RENEWABLE ENGINEERING	NORTHAMPTONSHIRE	Survey Type: MANUAL
19	TV-02-C-02 PARKVIEW ROAD WEST HARTLEPOOL  Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 9 Survey date: FRIDAY 04/09/20	FLUID ENGINEERING	TEES VALLEY	Survey Type: MANUAL
20	VG-02-C-01 VERLON CLOSE BARRY  Edge of Town Industrial Zone Total No of Employees: 63 Survey date: THURSDAY 06/05/21	ALCOHOL ANALYSIS PRODUCTS	VALE OF GLAMORGAN	Survey Type: MANUAL
21	WK-02-C-01 CASTLE MOUND WAY RUGBY  Edge of Town Industrial Zone Total No of Employees: 133 Survey date: WEDNESDAY 10/11/21	MACHINE ENGINEERING	WARWICKSHIRE	Survey Type: MANUAL
22	WM-02-C-04 STOURVALE ROAD STOURBRIDGE LYE Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 30 Survey date: TUESDAY 21/11/17	FOUNDRY	WEST MIDLANDS	Survey Type: MANUAL
23	WM-02-C-05 ICKNIELD STREET BIRMINGHAM HOCKLEY Suburban Area (PPS6 Out of Centre) Industrial Zone Total No of Employees: 4 Survey date: MONDAY 22/11/21	INDIAN CATERING	WEST MIDLANDS	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

24	WS-02-C-02	AVIATION COMPANY	WEST SUSSEX
	MAYDWELL AVENUE		
	NEAR HORSHAM		
	SLINFOLD		
	Free Standing (PPS6 Out of Town)		
	Out of Town		
	Total No of Employees:	372	
	Survey date: THURSDAY	23/01/14	Survey Type: MANUAL
25	WY-02-C-02	FLUID SYSTEMS	WEST YORKSHIRE
	BROWN LANE WEST		
	LEEDS		
	HOLBECK		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total No of Employees:	170	
	Survey date: MONDAY	19/10/15	Survey Type: MANUAL

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

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

TOTAL VEHICLES

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	6	59	0.003	6	59	0.000	6	59	0.003
05:30 - 06:00	6	59	0.037	6	59	0.000	6	59	0.037
06:00 - 06:30	9	104	0.037	9	104	0.003	9	104	0.040
06:30 - 07:00	9	104	0.063	9	104	0.006	9	104	0.069
07:00 - 07:30	24	68	0.081	24	68	0.009	24	68	0.090
07:30 - 08:00	24	68	0.108	24	68	0.015	24	68	0.123
08:00 - 08:30	24	68	0.185	24	68	0.014	24	68	0.199
08:30 - 09:00	24	68	0.099	24	68	0.019	24	68	0.118
09:00 - 09:30	25	65	0.057	25	65	0.023	25	65	0.080
09:30 - 10:00	25	65	0.049	25	65	0.041	25	65	0.090
10:00 - 10:30	25	65	0.045	25	65	0.032	25	65	0.077
10:30 - 11:00	25	65	0.047	25	65	0.036	25	65	0.083
11:00 - 11:30	25	65	0.032	25	65	0.039	25	65	0.071
11:30 - 12:00	25	65	0.022	25	65	0.030	25	65	0.052
12:00 - 12:30	25	65	0.042	25	65	0.051	25	65	0.093
12:30 - 13:00	25	65	0.043	25	65	0.055	25	65	0.098
13:00 - 13:30	25	65	0.054	25	65	0.055	25	65	0.109
13:30 - 14:00	25	65	0.026	25	65	0.033	25	65	0.059
14:00 - 14:30	25	65	0.035	25	65	0.031	25	65	0.066
14:30 - 15:00	25	65	0.025	25	65	0.036	25	65	0.061
15:00 - 15:30	25	65	0.023	25	65	0.057	25	65	0.080
15:30 - 16:00	25	65	0.020	25	65	0.048	25	65	0.068
16:00 - 16:30	25	65	0.022	25	65	0.110	25	65	0.132
16:30 - 17:00	25	65	0.011	25	65	0.074	25	65	0.085
17:00 - 17:30	25	65	0.017	25	65	0.098	25	65	0.115
17:30 - 18:00	25	65	0.020	25	65	0.111	25	65	0.131
18:00 - 18:30	25	65	0.017	25	65	0.068	25	65	0.085
18:30 - 19:00	25	65	0.007	25	65	0.023	25	65	0.030
19:00 - 19:30	8	91	0.015	8	91	0.014	8	91	0.029
19:30 - 20:00	8	91	0.003	8	91	0.021	8	91	0.024
20:00 - 20:30	6	59	0.003	6	59	0.006	6	59	0.009
20:30 - 21:00	6	59	0.006	6	59	0.011	6	59	0.017
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			1.254			1.169			2.423

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

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



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#### Parameter summary

Trip rate parameter range selected:	2 - 372 (units: )
Survey date range:	01/01/14 - 22/11/21
Number of weekdays (Monday-Friday):	25
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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

TAXIS

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	6	59	0.000	6	59	0.000	6	59	0.000
05:30 - 06:00	6	59	0.000	6	59	0.000	6	59	0.000
06:00 - 06:30	9	104	0.000	9	104	0.000	9	104	0.000
06:30 - 07:00	9	104	0.000	9	104	0.000	9	104	0.000
07:00 - 07:30	24	68	0.000	24	68	0.000	24	68	0.000
07:30 - 08:00	24	68	0.000	24	68	0.000	24	68	0.000
08:00 - 08:30	24	68	0.000	24	68	0.000	24	68	0.000
08:30 - 09:00	24	68	0.000	24	68	0.000	24	68	0.000
09:00 - 09:30	25	65	0.001	25	65	0.001	25	65	0.002
09:30 - 10:00	25	65	0.000	25	65	0.000	25	65	0.000
10:00 - 10:30	25	65	0.000	25	65	0.000	25	65	0.000
10:30 - 11:00	25	65	0.001	25	65	0.001	25	65	0.002
11:00 - 11:30	25	65	0.001	25	65	0.001	25	65	0.002
11:30 - 12:00	25	65	0.001	25	65	0.001	25	65	0.002
12:00 - 12:30	25	65	0.000	25	65	0.000	25	65	0.000
12:30 - 13:00	25	65	0.001	25	65	0.001	25	65	0.002
13:00 - 13:30	25	65	0.000	25	65	0.000	25	65	0.000
13:30 - 14:00	25	65	0.000	25	65	0.000	25	65	0.000
14:00 - 14:30	25	65	0.001	25	65	0.001	25	65	0.002
14:30 - 15:00	25	65	0.000	25	65	0.000	25	65	0.000
15:00 - 15:30	25	65	0.001	25	65	0.001	25	65	0.002
15:30 - 16:00	25	65	0.000	25	65	0.000	25	65	0.000
16:00 - 16:30	25	65	0.001	25	65	0.001	25	65	0.002
16:30 - 17:00	25	65	0.001	25	65	0.001	25	65	0.002
17:00 - 17:30	25	65	0.000	25	65	0.000	25	65	0.000
17:30 - 18:00	25	65	0.000	25	65	0.000	25	65	0.000
18:00 - 18:30	25	65	0.000	25	65	0.000	25	65	0.000
18:30 - 19:00	25	65	0.001	25	65	0.001	25	65	0.002
19:00 - 19:30	8	91	0.000	8	91	0.000	8	91	0.000
19:30 - 20:00	8	91	0.000	8	91	0.000	8	91	0.000
20:00 - 20:30	6	59	0.000	6	59	0.000	6	59	0.000
20:30 - 21:00	6	59	0.000	6	59	0.000	6	59	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									
<b>Total Rates:</b>			0.010			0.010			0.020

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/C - INDUSTRIAL UNIT

OGVS

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	6	59	0.000	6	59	0.000	6	59	0.000
05:30 - 06:00	6	59	0.000	6	59	0.000	6	59	0.000
06:00 - 06:30	9	104	0.001	9	104	0.000	9	104	0.001
06:30 - 07:00	9	104	0.001	9	104	0.000	9	104	0.001
07:00 - 07:30	24	68	0.006	24	68	0.002	24	68	0.008
07:30 - 08:00	24	68	0.004	24	68	0.006	24	68	0.010
08:00 - 08:30	24	68	0.008	24	68	0.005	24	68	0.013
08:30 - 09:00	24	68	0.010	24	68	0.006	24	68	0.016
09:00 - 09:30	25	65	0.012	25	65	0.007	25	65	0.019
09:30 - 10:00	25	65	0.015	25	65	0.010	25	65	0.025
10:00 - 10:30	25	65	0.014	25	65	0.008	25	65	0.022
10:30 - 11:00	25	65	0.013	25	65	0.007	25	65	0.020
11:00 - 11:30	25	65	0.010	25	65	0.011	25	65	0.021
11:30 - 12:00	25	65	0.007	25	65	0.007	25	65	0.014
12:00 - 12:30	25	65	0.015	25	65	0.011	25	65	0.026
12:30 - 13:00	25	65	0.006	25	65	0.009	25	65	0.015
13:00 - 13:30	25	65	0.012	25	65	0.008	25	65	0.020
13:30 - 14:00	25	65	0.007	25	65	0.006	25	65	0.013
14:00 - 14:30	25	65	0.005	25	65	0.005	25	65	0.010
14:30 - 15:00	25	65	0.005	25	65	0.004	25	65	0.009
15:00 - 15:30	25	65	0.004	25	65	0.006	25	65	0.010
15:30 - 16:00	25	65	0.004	25	65	0.004	25	65	0.008
16:00 - 16:30	25	65	0.007	25	65	0.006	25	65	0.013
16:30 - 17:00	25	65	0.001	25	65	0.004	25	65	0.005
17:00 - 17:30	25	65	0.001	25	65	0.001	25	65	0.002
17:30 - 18:00	25	65	0.001	25	65	0.001	25	65	0.002
18:00 - 18:30	25	65	0.000	25	65	0.000	25	65	0.000
18:30 - 19:00	25	65	0.000	25	65	0.001	25	65	0.001
19:00 - 19:30	8	91	0.000	8	91	0.004	8	91	0.004
19:30 - 20:00	8	91	0.000	8	91	0.004	8	91	0.004
20:00 - 20:30	6	59	0.000	6	59	0.003	6	59	0.003
20:30 - 21:00	6	59	0.000	6	59	0.008	6	59	0.008
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.169			0.154			0.323

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/C - INDUSTRIAL UNIT  
 PSVS

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	6	59	0.000	6	59	0.000	6	59	0.000
05:30 - 06:00	6	59	0.000	6	59	0.000	6	59	0.000
06:00 - 06:30	9	104	0.000	9	104	0.000	9	104	0.000
06:30 - 07:00	9	104	0.000	9	104	0.000	9	104	0.000
07:00 - 07:30	24	68	0.000	24	68	0.000	24	68	0.000
07:30 - 08:00	24	68	0.000	24	68	0.000	24	68	0.000
08:00 - 08:30	24	68	0.000	24	68	0.000	24	68	0.000
08:30 - 09:00	24	68	0.000	24	68	0.000	24	68	0.000
09:00 - 09:30	25	65	0.000	25	65	0.000	25	65	0.000
09:30 - 10:00	25	65	0.001	25	65	0.001	25	65	0.002
10:00 - 10:30	25	65	0.000	25	65	0.000	25	65	0.000
10:30 - 11:00	25	65	0.001	25	65	0.000	25	65	0.001
11:00 - 11:30	25	65	0.000	25	65	0.001	25	65	0.001
11:30 - 12:00	25	65	0.000	25	65	0.000	25	65	0.000
12:00 - 12:30	25	65	0.000	25	65	0.000	25	65	0.000
12:30 - 13:00	25	65	0.001	25	65	0.001	25	65	0.002
13:00 - 13:30	25	65	0.000	25	65	0.000	25	65	0.000
13:30 - 14:00	25	65	0.000	25	65	0.000	25	65	0.000
14:00 - 14:30	25	65	0.000	25	65	0.000	25	65	0.000
14:30 - 15:00	25	65	0.000	25	65	0.000	25	65	0.000
15:00 - 15:30	25	65	0.000	25	65	0.000	25	65	0.000
15:30 - 16:00	25	65	0.000	25	65	0.000	25	65	0.000
16:00 - 16:30	25	65	0.000	25	65	0.000	25	65	0.000
16:30 - 17:00	25	65	0.000	25	65	0.000	25	65	0.000
17:00 - 17:30	25	65	0.000	25	65	0.000	25	65	0.000
17:30 - 18:00	25	65	0.000	25	65	0.000	25	65	0.000
18:00 - 18:30	25	65	0.000	25	65	0.000	25	65	0.000
18:30 - 19:00	25	65	0.000	25	65	0.000	25	65	0.000
19:00 - 19:30	8	91	0.000	8	91	0.000	8	91	0.000
19:30 - 20:00	8	91	0.000	8	91	0.000	8	91	0.000
20:00 - 20:30	6	59	0.000	6	59	0.000	6	59	0.000
20:30 - 21:00	6	59	0.000	6	59	0.000	6	59	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									
<b>Total Rates:</b>			0.003			0.003			0.006

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/C - INDUSTRIAL UNIT  
 CYCLISTS

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	6	59	0.000	6	59	0.000	6	59	0.000
05:30 - 06:00	6	59	0.000	6	59	0.000	6	59	0.000
06:00 - 06:30	9	104	0.001	9	104	0.000	9	104	0.001
06:30 - 07:00	9	104	0.003	9	104	0.000	9	104	0.003
07:00 - 07:30	24	68	0.003	24	68	0.001	24	68	0.004
07:30 - 08:00	24	68	0.004	24	68	0.000	24	68	0.004
08:00 - 08:30	24	68	0.005	24	68	0.000	24	68	0.005
08:30 - 09:00	24	68	0.001	24	68	0.000	24	68	0.001
09:00 - 09:30	25	65	0.001	25	65	0.000	25	65	0.001
09:30 - 10:00	25	65	0.000	25	65	0.000	25	65	0.000
10:00 - 10:30	25	65	0.000	25	65	0.000	25	65	0.000
10:30 - 11:00	25	65	0.000	25	65	0.001	25	65	0.001
11:00 - 11:30	25	65	0.001	25	65	0.000	25	65	0.001
11:30 - 12:00	25	65	0.000	25	65	0.000	25	65	0.000
12:00 - 12:30	25	65	0.000	25	65	0.000	25	65	0.000
12:30 - 13:00	25	65	0.000	25	65	0.001	25	65	0.001
13:00 - 13:30	25	65	0.003	25	65	0.002	25	65	0.005
13:30 - 14:00	25	65	0.001	25	65	0.000	25	65	0.001
14:00 - 14:30	25	65	0.000	25	65	0.002	25	65	0.002
14:30 - 15:00	25	65	0.000	25	65	0.002	25	65	0.002
15:00 - 15:30	25	65	0.000	25	65	0.002	25	65	0.002
15:30 - 16:00	25	65	0.000	25	65	0.001	25	65	0.001
16:00 - 16:30	25	65	0.001	25	65	0.002	25	65	0.003
16:30 - 17:00	25	65	0.000	25	65	0.005	25	65	0.005
17:00 - 17:30	25	65	0.003	25	65	0.007	25	65	0.010
17:30 - 18:00	25	65	0.001	25	65	0.001	25	65	0.002
18:00 - 18:30	25	65	0.000	25	65	0.002	25	65	0.002
18:30 - 19:00	25	65	0.000	25	65	0.001	25	65	0.001
19:00 - 19:30	8	91	0.000	8	91	0.000	8	91	0.000
19:30 - 20:00	8	91	0.000	8	91	0.000	8	91	0.000
20:00 - 20:30	6	59	0.000	6	59	0.000	6	59	0.000
20:30 - 21:00	6	59	0.000	6	59	0.000	6	59	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									
<b>Total Rates:</b>			0.028			0.030			0.058

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/C - INDUSTRIAL UNIT  
 CARS

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	6	59	0.003	6	59	0.000	6	59	0.003
05:30 - 06:00	6	59	0.034	6	59	0.000	6	59	0.034
06:00 - 06:30	9	104	0.029	9	104	0.000	9	104	0.029
06:30 - 07:00	9	104	0.054	9	104	0.006	9	104	0.060
07:00 - 07:30	24	68	0.065	24	68	0.006	24	68	0.071
07:30 - 08:00	24	68	0.095	24	68	0.007	24	68	0.102
08:00 - 08:30	24	68	0.171	24	68	0.006	24	68	0.177
08:30 - 09:00	24	68	0.075	24	68	0.006	24	68	0.081
09:00 - 09:30	25	65	0.034	25	65	0.009	25	65	0.043
09:30 - 10:00	25	65	0.023	25	65	0.020	25	65	0.043
10:00 - 10:30	25	65	0.018	25	65	0.014	25	65	0.032
10:30 - 11:00	25	65	0.015	25	65	0.013	25	65	0.028
11:00 - 11:30	25	65	0.010	25	65	0.018	25	65	0.028
11:30 - 12:00	25	65	0.007	25	65	0.013	25	65	0.020
12:00 - 12:30	25	65	0.014	25	65	0.028	25	65	0.042
12:30 - 13:00	25	65	0.023	25	65	0.033	25	65	0.056
13:00 - 13:30	25	65	0.031	25	65	0.034	25	65	0.065
13:30 - 14:00	25	65	0.015	25	65	0.020	25	65	0.035
14:00 - 14:30	25	65	0.018	25	65	0.015	25	65	0.033
14:30 - 15:00	25	65	0.008	25	65	0.020	25	65	0.028
15:00 - 15:30	25	65	0.009	25	65	0.036	25	65	0.045
15:30 - 16:00	25	65	0.006	25	65	0.033	25	65	0.039
16:00 - 16:30	25	65	0.008	25	65	0.082	25	65	0.090
16:30 - 17:00	25	65	0.004	25	65	0.062	25	65	0.066
17:00 - 17:30	25	65	0.013	25	65	0.087	25	65	0.100
17:30 - 18:00	25	65	0.018	25	65	0.107	25	65	0.125
18:00 - 18:30	25	65	0.015	25	65	0.067	25	65	0.082
18:30 - 19:00	25	65	0.006	25	65	0.021	25	65	0.027
19:00 - 19:30	8	91	0.014	8	91	0.010	8	91	0.024
19:30 - 20:00	8	91	0.003	8	91	0.015	8	91	0.018
20:00 - 20:30	6	59	0.003	6	59	0.003	6	59	0.006
20:30 - 21:00	6	59	0.006	6	59	0.000	6	59	0.006
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.847			0.791			1.638

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/C - INDUSTRIAL UNIT

LGVS

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	6	59	0.000	6	59	0.000	6	59	0.000
05:30 - 06:00	6	59	0.000	6	59	0.000	6	59	0.000
06:00 - 06:30	9	104	0.007	9	104	0.003	9	104	0.010
06:30 - 07:00	9	104	0.006	9	104	0.000	9	104	0.006
07:00 - 07:30	24	68	0.009	24	68	0.002	24	68	0.011
07:30 - 08:00	24	68	0.006	24	68	0.002	24	68	0.008
08:00 - 08:30	24	68	0.005	24	68	0.003	24	68	0.008
08:30 - 09:00	24	68	0.012	24	68	0.007	24	68	0.019
09:00 - 09:30	25	65	0.010	25	65	0.007	25	65	0.017
09:30 - 10:00	25	65	0.010	25	65	0.010	25	65	0.020
10:00 - 10:30	25	65	0.012	25	65	0.010	25	65	0.022
10:30 - 11:00	25	65	0.018	25	65	0.015	25	65	0.033
11:00 - 11:30	25	65	0.010	25	65	0.009	25	65	0.019
11:30 - 12:00	25	65	0.007	25	65	0.009	25	65	0.016
12:00 - 12:30	25	65	0.014	25	65	0.012	25	65	0.026
12:30 - 13:00	25	65	0.013	25	65	0.012	25	65	0.025
13:00 - 13:30	25	65	0.010	25	65	0.013	25	65	0.023
13:30 - 14:00	25	65	0.004	25	65	0.007	25	65	0.011
14:00 - 14:30	25	65	0.011	25	65	0.010	25	65	0.021
14:30 - 15:00	25	65	0.012	25	65	0.011	25	65	0.023
15:00 - 15:30	25	65	0.009	25	65	0.012	25	65	0.021
15:30 - 16:00	25	65	0.010	25	65	0.010	25	65	0.020
16:00 - 16:30	25	65	0.007	25	65	0.020	25	65	0.027
16:30 - 17:00	25	65	0.006	25	65	0.007	25	65	0.013
17:00 - 17:30	25	65	0.003	25	65	0.008	25	65	0.011
17:30 - 18:00	25	65	0.001	25	65	0.003	25	65	0.004
18:00 - 18:30	25	65	0.002	25	65	0.001	25	65	0.003
18:30 - 19:00	25	65	0.000	25	65	0.001	25	65	0.001
19:00 - 19:30	8	91	0.001	8	91	0.000	8	91	0.001
19:30 - 20:00	8	91	0.000	8	91	0.000	8	91	0.000
20:00 - 20:30	6	59	0.000	6	59	0.000	6	59	0.000
20:30 - 21:00	6	59	0.000	6	59	0.003	6	59	0.003
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			0.215			0.207			0.422

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/C - INDUSTRIAL UNIT  
 MOTOR CYCLES  
 Calculation factor: 1 EMPLOY  
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	6	59	0.000	6	59	0.000	6	59	0.000
05:30 - 06:00	6	59	0.003	6	59	0.000	6	59	0.003
06:00 - 06:30	9	104	0.000	9	104	0.000	9	104	0.000
06:30 - 07:00	9	104	0.001	9	104	0.000	9	104	0.001
07:00 - 07:30	24	68	0.001	24	68	0.000	24	68	0.001
07:30 - 08:00	24	68	0.002	24	68	0.000	24	68	0.002
08:00 - 08:30	24	68	0.001	24	68	0.000	24	68	0.001
08:30 - 09:00	24	68	0.001	24	68	0.001	24	68	0.002
09:00 - 09:30	25	65	0.001	25	65	0.000	25	65	0.001
09:30 - 10:00	25	65	0.001	25	65	0.001	25	65	0.002
10:00 - 10:30	25	65	0.001	25	65	0.001	25	65	0.002
10:30 - 11:00	25	65	0.000	25	65	0.000	25	65	0.000
11:00 - 11:30	25	65	0.000	25	65	0.000	25	65	0.000
11:30 - 12:00	25	65	0.000	25	65	0.000	25	65	0.000
12:00 - 12:30	25	65	0.000	25	65	0.000	25	65	0.000
12:30 - 13:00	25	65	0.001	25	65	0.001	25	65	0.002
13:00 - 13:30	25	65	0.000	25	65	0.001	25	65	0.001
13:30 - 14:00	25	65	0.001	25	65	0.000	25	65	0.001
14:00 - 14:30	25	65	0.000	25	65	0.000	25	65	0.000
14:30 - 15:00	25	65	0.000	25	65	0.000	25	65	0.000
15:00 - 15:30	25	65	0.000	25	65	0.002	25	65	0.002
15:30 - 16:00	25	65	0.001	25	65	0.001	25	65	0.002
16:00 - 16:30	25	65	0.000	25	65	0.002	25	65	0.002
16:30 - 17:00	25	65	0.000	25	65	0.001	25	65	0.001
17:00 - 17:30	25	65	0.000	25	65	0.002	25	65	0.002
17:30 - 18:00	25	65	0.000	25	65	0.001	25	65	0.001
18:00 - 18:30	25	65	0.000	25	65	0.000	25	65	0.000
18:30 - 19:00	25	65	0.000	25	65	0.001	25	65	0.001
19:00 - 19:30	8	91	0.000	8	91	0.000	8	91	0.000
19:30 - 20:00	8	91	0.000	8	91	0.001	8	91	0.001
20:00 - 20:30	6	59	0.000	6	59	0.000	6	59	0.000
20:30 - 21:00	6	59	0.000	6	59	0.000	6	59	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									
<b>Total Rates:</b>			0.015			0.016			0.031

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

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



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