Warehousing / Logistics, Office and Café / Restaurant Development at Calmount Rd / Ballymount Ave, Dublin 12

Traffic and Transport Assessment Report

210175-DBFL-TR-XX-RP-C-0002

TRANSPORTATION

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DBFL CONSULTING ENGINEERS

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1.0 INTRODUCTION

1.1 BACKGROUND

1.1.1 DBFL Consulting Engineers (DBFL) has been commissioned to compile a Traffic and Transport Assessment (TTA) Report in support of the planning application for a mixed-use commercial development on a site located north of Calmount Road and west of Ballymount Avenue, Ballymount Industrial Estate, Dublin 12.

1.1.2 The proposed development consists of the following key elements:

- Construction of 5 no. warehouse / logistics units (Units 1, 2 3, 4 and 6), including ancillary office use and entrance / reception areas over two levels, with maximum heights of c. 17.09 metres and a combined total gross floor area (GFA) of 20,158 sq.m;
- Each warehouse / logistics unit includes car parking to the front, and service yards, including HGV loading bays and bin storage areas, to the rear of each unit. A signage zone is proposed for each unit. A total of 200 no. car parking spaces and 110 no. cycle spaces are provided for the 5 no. warehouse / logistics units;
- Construction of 3 no. 3 storey own-door office buildings (Block 5A, 5B and 5C) with maximum heights of c. 13.35 metres and a combined GFA of 4,194 sq.m. Signage zones are proposed at the entrances to the buildings. A total of 77 no. car parking spaces and 50 no. cycle parking spaces are provided for the proposed office buildings;
- Construction of a café/restaurant unit with a maximum height of c. 5.29m and a GFA of 213 sq.m to be located in the south western section of the site. The proposal includes signage for the unit, associated outdoor seating and a bin store. 14 no. car parking spaces and 10 no. cycle spaces are provided for the café/restaurant unit;
- The proposal includes 5 no. ESB substation buildings;
- The development is to be accessed off Ballymount Avenue and Calmount Road and includes for alterations and upgrades to the public footpaths and road. The

development provides for vehicular and service access points, associated internal access roads, circulation areas and footpaths; and

- The proposal includes landscaping and planting, boundary treatments, lighting, PV panels, green roofs, underground foul and storm water drainage network, including connections to the foul and surface water drainage network on the public roads, attenuation areas and all associated site works and development.

1.1.3 This TTA has been prepared in reference to the requirements of the National Roads Authority (NRA) "Traffic and Transportation Assessment Guidelines" and the "South Dublin County Council Development Plan 2016-2022".

1.1.4 During the development of this report, traffic turning count surveys have been commissioned specifically for this assessment, with the objective of providing background information relating to existing traffic movement patterns across the local road network. This information has been supplemented with data obtained from site audits of the local road network, subsequently enabling the identification of existing local travel characteristics and an appreciation of the local receiving environment from a transportation perspective.

1.2 SCOPE

1.2.1 The objective of this TTA is to quantify the existing transport environment and to detail the results of assessment work undertaken to identify the potential level of any transport impact generated as a result of the proposed warehouse / logistic/office development. The scope of the assessment covers transport and related sustainability issues including means of vehicular access, pedestrian, cyclist, and local public transport connections.

1.3 METHODOLOGY

1.3.1 DBFL's approach to the study accords with policy and guidance both at a national and local level. Accordingly, the adopted methodology responds to best practices, current and emerging guidance, exemplified by a series of publications, all of which advocate this method of analysis. Key publications consulted include;

- *'Traffic and Transport Assessment Guidelines'* (May 2014) National Road Authority;

- *'Traffic Management Guidelines'* Dublin Transportation Office & Department of the Environment and Local Government (May 2003);
- *'Guidelines for Traffic Impact Assessments'* The Institution of Highways and Transportation; and
- South Dublin County Council Development Plan 2016-2022.
- *Design Manual for Urban Roads and Streets* (DMURS)

1.3.2 Our methodology incorporated a number of key inter-related stages, including;

- **Site Audit**: A site audit was undertaken to quantify existing road network issues and identify local infrastructure characteristics, in addition to establishing the level of accessibility to the site in terms of walking, cycling and public transport. An inventory of the local road network was also developed during this stage of the assessment.
- **Developments Policy Context**: Review of the most relevant policy documentation with the objective of establishing local development management standards and the subject sites existing and emerging transportation planning framework.
- **Traffic Counts**: Junction traffic counts in addition to vehicle queue length surveys were undertaken and analysed with the objective of establishing local traffic characteristics in the immediate area of the proposed residential development.
- **Trip Generation**: A trip generation exercise has been carried out based on surveys of similar use donor sites as well as TRICS to establish the potential level of vehicle trips generated by the proposed warehouse/logistic development.
- **Trip Distribution**: Based upon both the existing and future network characteristics, a distribution exercise has been undertaken to assign site generated vehicle trips across the local road network.
- **NTA Model Extract**: Future vehicle volumes extracted from the NTA's Eastern Regional Model (ERM) transportation model have been used to establish future traffic demand scenarios in reference to committed development infrastructural

upgrades (i.e., BusConnects Core Bus Corridor) across the immediate surrounding area.

- **Network Analysis:** Further to quantifying the predicted impact of vehicle movements across the local road network for the adopted site access strategy more detailed computer simulations have been undertaken to assess the operational performance of key junctions in the post development future design year network scenarios.

1.4 REPORT STRUCTURE

1.4.1 As introduced above, this TTA seeks to clarify the potential level of influence generated by the proposed development upon the local road network and subsequently ascertain the existing and future operational performance of the local transport system. The structure of the report responds to the various stages of this exercise including the key tasks summarised below.

1.4.2 **Chapter 2** of this report describes the existing conditions at the proposed development location and surrounding area, whilst **Chapter 3** provides a summary of the relevant transport policies that influence the design and appraisal of the subject development proposal.

1.4.3 A description of the proposed commercial development scheme from a transportation perspective is described in **Chapter 4** whilst **Chapter 5** outlines the trip generation and distribution exercise carried out and the adopted methodology for applying growth factors to establish design year network traffic flows and the predicted scale of impact upon the local road network.

1.4.4 The operational performance of key local junctions is assessed for the 2025 Opening Year and the 2028 (Opening Year +5 years) and the 2043 (Opening Year +15 years) Horizon Years are summarised within **Chapter 6**. The subject impact of the development proposals is outlined in **Chapter 7.**

1.4.5 The main conclusions and recommendations derived from the analysis are summarised in **Chapter 8.**

2.0 RECEIVING ENVIRONMENT

2.1 LAND USE

2.1.1 The subject greenfield site comprises 7.1 hectares in the ownership of the applicant which is zoned *"Objective EE – To provide for enterprise and employment relayed uses"* in the SDCC Development Plan (2016-2022). Figure 2.1 illustrates the location of the proposed development in the context of the local Land use zoning objectives. It is noted that the application site boundary (Red Line boundary) extends to some 7.45 hectares when the external infrastructure works in the control of the local planning authority are considered.

Figure 2.1 Land Use Zoning (Ref.: SDCC Development Plan 2016-2022 Map 5)

2.2 LOCATION

2.2.1 The proposed development site is located north of Calmount Road and west of Ballymount Avenue, within Ballymount Industrial Estate, Dublin 12. **Figure 2.2** below presents the general position of the subject site location in regard to the surrounding road network whilst **Figure 2.3** shows the indicative subject site boundary in reference to the local road network.

2.2.2 The subject site is located approximately 7km southwest of Dublin City Centre and 3.5 km northeast of Tallaght. Junction 10 of the M50 can be accessed approximately 500m

southwest from the proposed development site. The subject site is bound to the east by Ballymount Avenue and to the south by Calmount Road along with existing industrial units accessed along Ballymount Road Lower and Ballymount Road Upper forming the northern and western boundaries respectively.

Figure 2.2: Site Location (Reference: Google Maps)

Figure 2.3 Indicative Site Boundary (Source: Google Maps)

2.3 EXISTING TRANSPORTATION INFRASTRUCTURE

Road Network

2.3.1 The proposed development is located adjacent to Calmount Road to the south and Ballymount Avenue to the east. Travelling approximately 500m southwest along Calmount Road, the R838 can be accessed from junction 10 on the M50 which continues towards both Brookfield and Citywest while travelling eastwards along Calmount Road currently terminates in a cul-de-sac approximately 600m to the east from the site access. The junction between Calmount Road and Ballymount Avenue is currently a roundabout arrangement.

2.3.2 Travelling in a northbound direction along the M50 motorway, Dublin Airport, Dublin Port, and other urban areas such as Blanchardstown are accessible. Additionally, Naas Road (N7) can be accessed via junction 9 on the M50, located c.1.2km northwest of the site providing connections to City West and the M7. Travelling south via Ballymount Avenue leads to the R819/Greenhills Road which further connects to Tallaght and Long Mile Road.

Figure 2.4: Site Location (Reference: Google Maps)

2.3.3 Third party commercial developments exist along Ballymount Road Lower and Ballymount Road Upper and forms the northern and western boundaries of the site respectively.

Figure 2.4 illustrates the surrounding key road network within the near vicinity of the subject site.

Existing Cycling and Pedestrian Facilities

2.3.4 The Calmount Road and Ballymount Avenue Road is subject to a speed limit of 50 kph with street lighting is available on one side of the road carriageway. Calmount Road does not have any existing cycle facilities however, cyclists along the Ballymount Avenue benefits from the provision of cycle tracks on both sides of the carriageway. A pedestrian footpath can be found along the southern edge of Calmount Road, while dedicated pedestrian footpath exists on both sides of Ballymount Avenue. **Figure 2.5** and Figure 2.6 illustrate the existing provision of street lighting, cycle tracks and pedestrian facilities along Calmount Road and Ballymount Avenue Road. The existing junction between Ballymount Avenue and Ballymount Road Lower contains a signalised junction with formal pedestrian crossing facilities and advanced stop line facilities for cyclists as shown in Figure 2.6.

Figure 2.5: Pedestrian Facilities along Calmount Road

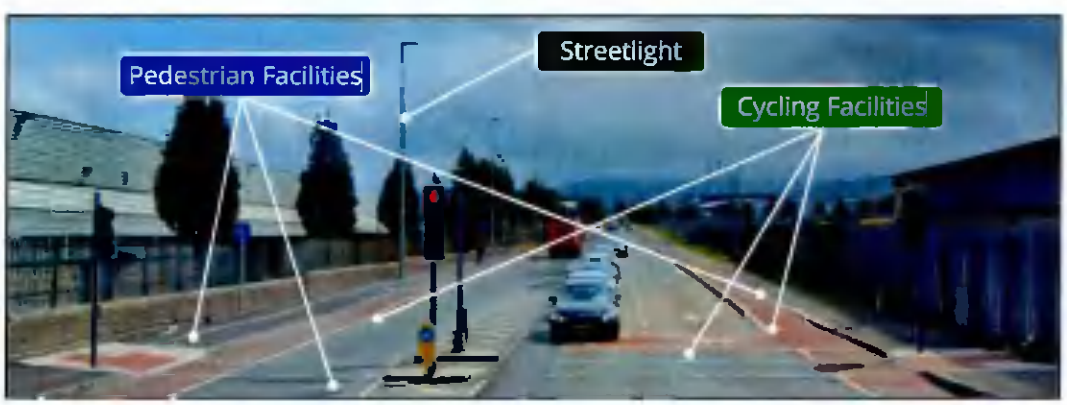


Figure 2.6: Pedestrian & Cycle Facilities on Ballymount Avenue

2.3.5 Both Ballymount Road Upper and Ballymount Road Lower do not currently provide any cycling facilities. However, the two streets benefit from a designated footpath both sides of the carriageway as well as street lighting on as illustrated in **Figure 2.7** and **Figure 2.8**.

2.3.6 In December 2013, the NTA published the report entitled **Greater Dublin Area Cycle Network Plan**. The report summarises the findings of a comprehensive body of work detailing existing and proposed Cycle Network incorporating Urban, Inter-urban and Green-route networks covering the seven local authority areas that together form the defined Greater Dublin Area (GDA). The subject site is located within the GDA cycle Network sector designated as the "Dublin Mid-West". **Figure 2.9** below (extracted from the Existing Cycle Facility Map) illustrate the existing facilities in the near vicinity of the subject site.

Figure 2.7: Pedestrian Facilities on Ballymount Road Upper

Figure 2.8: Pedestrian Facilities on Ballymount Road Lower

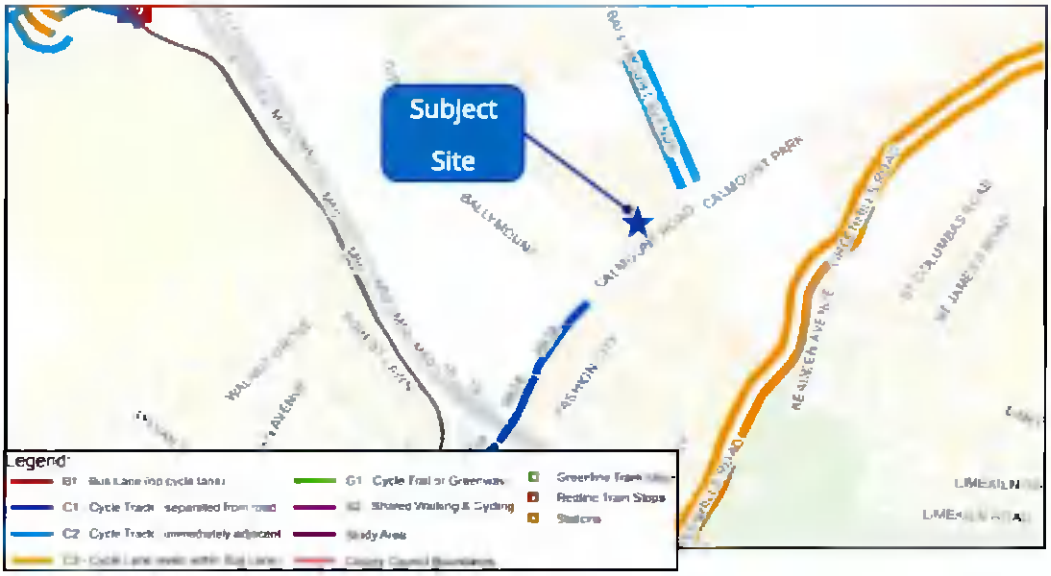


Figure 2.9: Existing Cycle Facilities (Reference: Sheet E5 GDA Cycle Network Plan)

Public Transport – Bus

2.3.7 The subject site benefits from access to public transport services including the Dublin Bus operated routes, that provide connections to Clare Hall, Tallaght, City Centre, Drimnagh, Grand Canal Dock and City West. Details of these existing routes, including the number of services per day per direction (frequency) is presented in **Table 2.1**.

2.3.8 Route 27 and Route 77A are accessible at bus stops located on Greenhills Road while Route 56A can be accessed via both Ballymount Rd upper and Ballymount Rd lower. **Figure 2.12** presents the path each bus route takes near the site, while **Figure 2.130** illustrates the closest bus stops to the site.

Route No.	Route	Mon - Fri	Sat	Sun
27	Clare Hall – Jobstown	100	82	68
	Jobstown – Clare Hall	100	82	68
56A	Ringsend Road – Tallaght	15	15	12
	Tallaght – Ringsend Road	15	15	11
77A	Ringsend Road – City West	52	46	34
	City West – Ringsend Road	57	46	32
77X	Citywest - UCD Belfield	1	-	-

Table 2.1: Dublin Bus Service Frequency (No. of services per day)

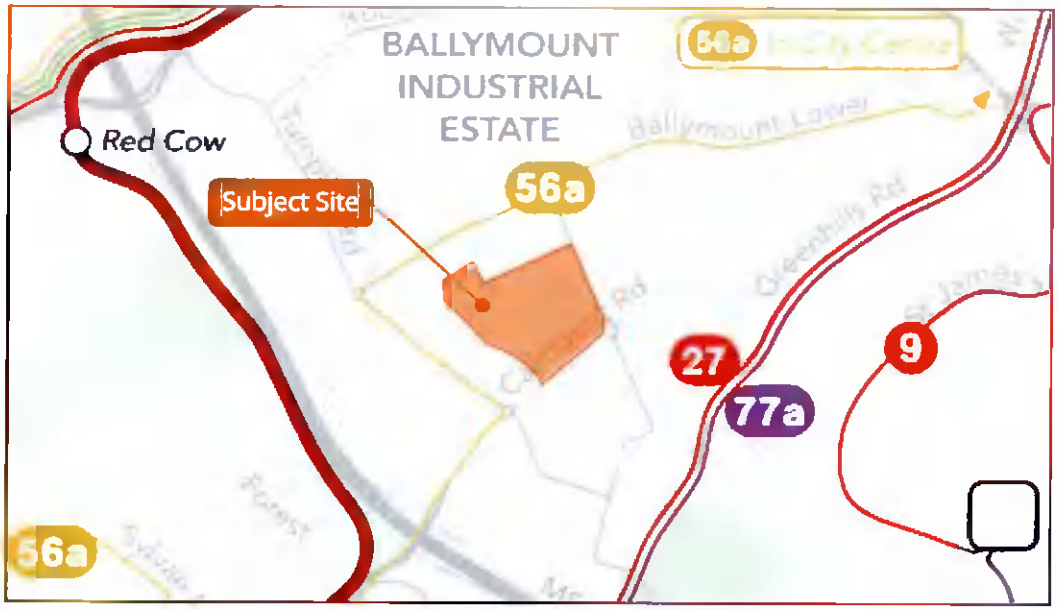


Figure 2.10: Existing Bus Network in the Vicinity of the Site (Reference: BusConnects)

Figure 2.11: Existing Bus interchange serving Subject Site (Reference: Google Maps)

Public Transport – Luas

2.3.9 The proposed development site lies within walking distance of the LUAS Red Line, which provides access to Dublin City Centre to the northeast and both Tallaght and Saggart to

the west. The Kingswood Luas Stop can be found 1.25 km southwest of the subject Calmount Rd site while the Kylemore Luas Stop is criteria 1.9 km to the north.

2.3.10 Travel to and from both stops to the site can easily be completed by walking or cycling. **Table 2.2** summarises the frequency of Luas services at both stops, while **Figure 2.13** illustrates the location of Luas Stops near the site.

Stop	Direction	Mon-Fri	Sat	Sun
Red Cow	Eastbound	4-11	6-11	9-12
	Westbound	4-20	6-11	10-14
Kylemore	Eastbound	4-11	6-11	9-12
	Westbound	4-20	6-11	10-14
Kingswood	Eastbound	4-11	6-11	9-12
	Westbound	4-20	6-11	10-14

Table 2.2 :Luas Red Line Service Frequency (Average Minutes)

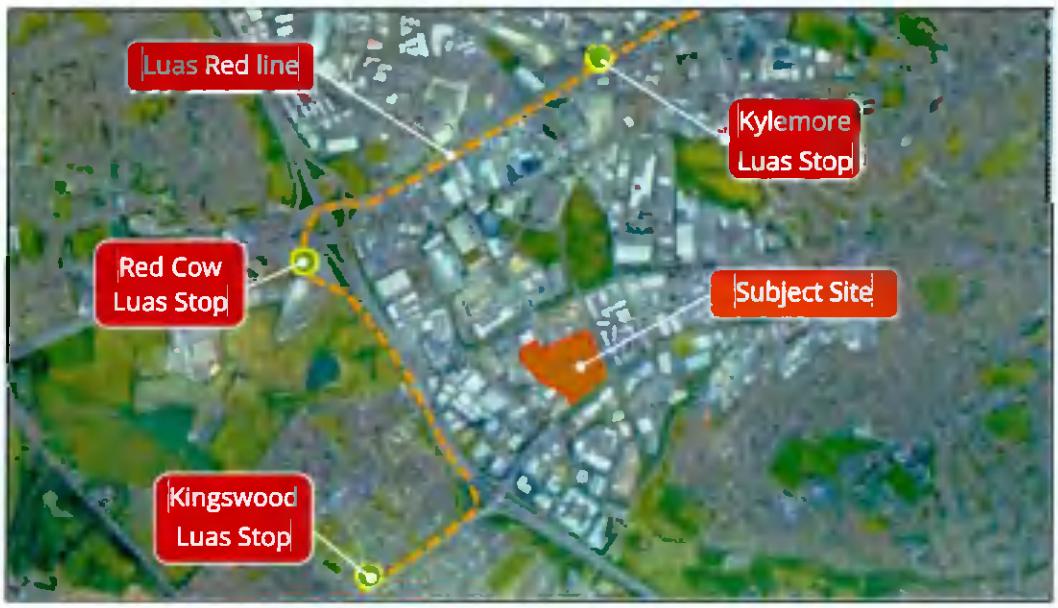


Figure 2.12: Rail & Park & Ride Accessibility

2.4 SITE ACCESSIBILITY

Walking

2.4.1 Figure 2.13 presents the significant extent of pedestrian catchments accessible from the subject Calmount Road for different walking times ranging from 15 minutes to 45 minutes.

2.4.2 Within a 15-minute walking timeframe, pedestrians from the site can reach local retail opportunities, industrial areas, and public transport facilities. Within a 15-minutes walking timeframe bus stops on Greenhills Road can be reached.

2.4.3 Red Cow and Kingswood Luas Stops can be accessed within 30 minutes and 45 minutes of walking distance from the subject site respectively.

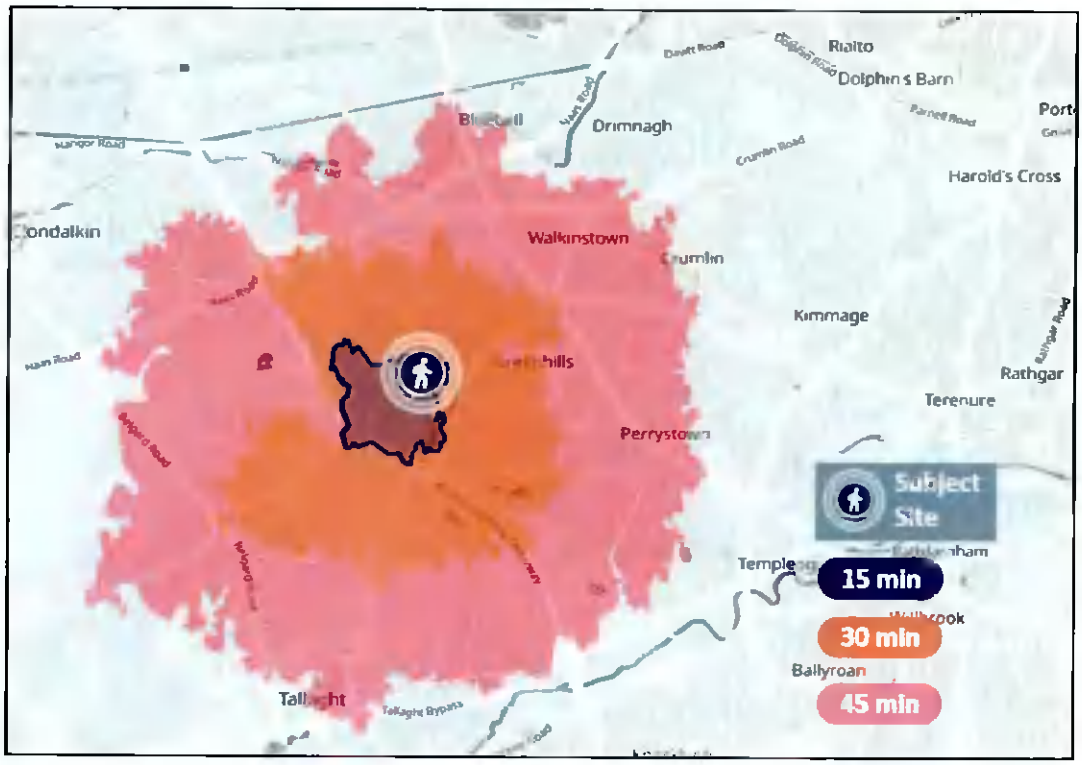


Figure 2.13: Pedestrian Accessibility (Walking from Site) (Reference: Travel Time)

Cycling

2.4.4 Figure 2.14 indicates cycle travel time catchment areas from the greenfield subject site. In 15 minutes of cycling, a significant number of nearby neighbourhood centres and their

employment / educational facilities are accessible. In 30 minutes of cycling areas such as Tallaght, Terrenure, Harold's Cross, Ballyfermot, Clondalkin and Saggart be reached. Cyclists can assess the entire Dublin City Centre including Phibsborough, whilst Castleknock, Lucan and Adamstown to the north west; Rathcoole to the south west; and both Dundrum and Ballinteer to the south east are all within 45 minutes of cycling.

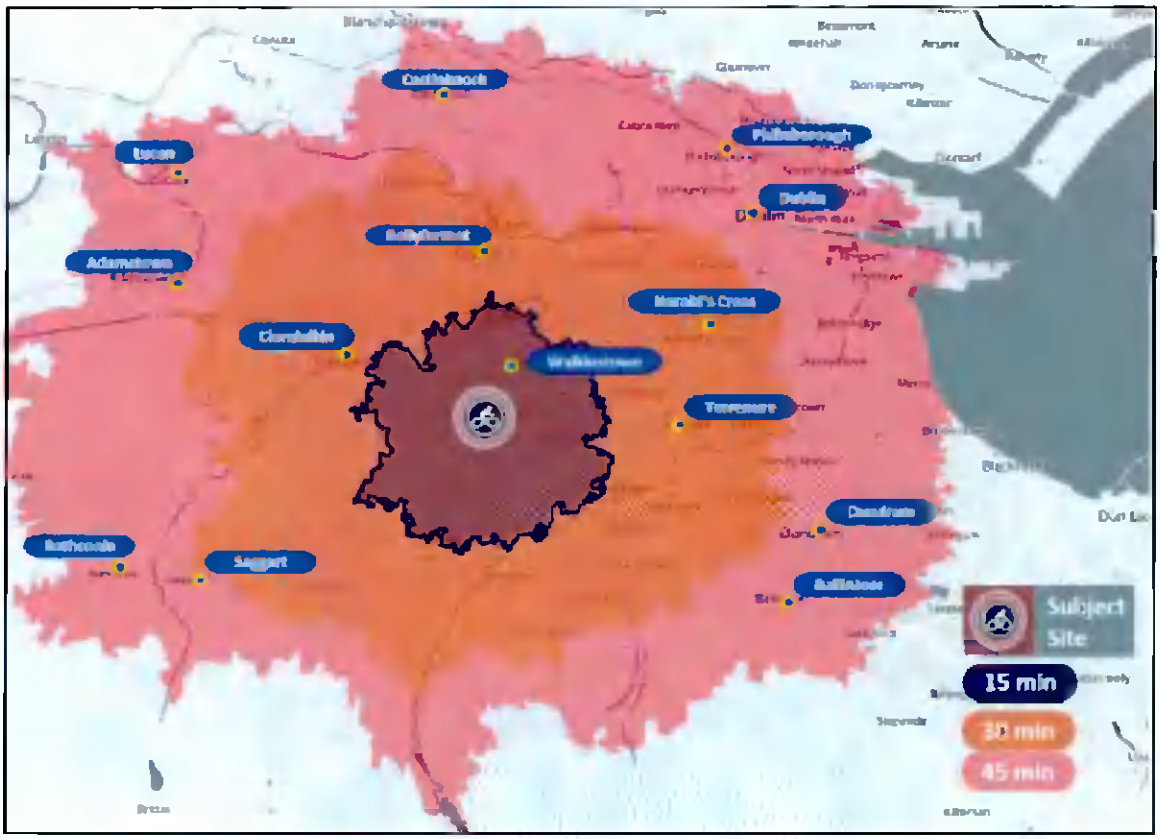


Figure 2.14: Cycling Accessibility (Reference: Travel Time)

Public Transport and Walking

2.4.5 The subject site benefits from a range of existing bus service in close proximity to the site as outlined in the section 2.3.7.

2.4.6 Figure 2.15 indicates public transport travel time catchment areas from the subject site. It is noted that the subject development location benefits from a number of different bus service interchanges being within close proximity. Areas such as Walkinstown, Terenure,

Tallaght, Jobstown, Saggart, Firhouse, Harold's Cross, Dolphin's barn, Kilmainham, Ballyfermot are within 45 minutes of the travel time from the subject site.

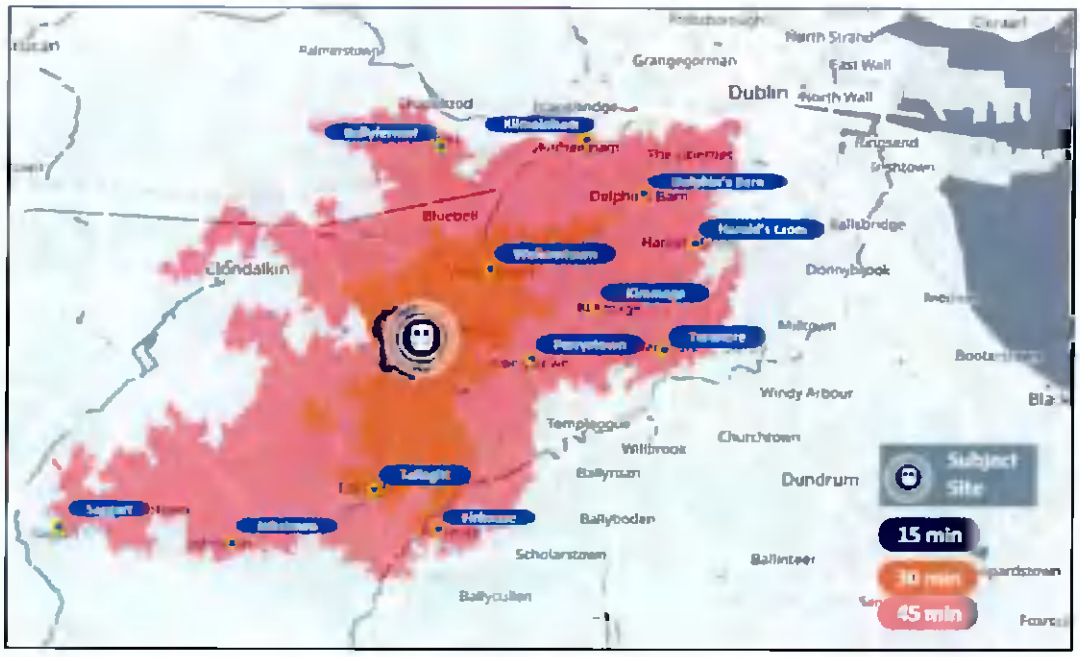


Figure 2.15: Public Transport Accessibility- Travel Time Catchments (Reference: Travel Time)

2.5 PROPOSED TRANSPORT INFRASTRUCTURE

Cycle Network Proposals

2.5.1 The subject site lies within the **"Dublin South West Sector"** as outlined within the Greater Dublin Area Cycle Network Plan (2013). **Figure 2.16** below illustrates the cycle network proposals in the vicinity of the subject site as outlined within the Plan. In the near vicinity of the subject site the plan includes proposals for several secondary routes, feeder routes and a greenway running parallel to the M50 motorway. The routes running closest to the site include:

- **Route 7E:** Cross link from the West sector to the South West sector. It branches off the Naas Road at Kylemore and follows Robinhood Road through the Ballymount Industrial Area to cross the M50 on a new bridge between Junctions 9 and 10 at Ballymount Cross before moving through the areas of Kingswood, Belgard, Cookstown, Fettercairn and Cheeverstown;
- **Route 8A:** Follows Crumlin Road past the Children's Hospital, Bunting Road to Walkinstown, through Ballymount to cross the M50 at Junction 10 and out to Citywest / Fortunestown via Belgard;
- **Western Parkway:** Parallel to the M50 ring motorway through open green spaces to provide a link from the Grand Canal to the River Dodder.

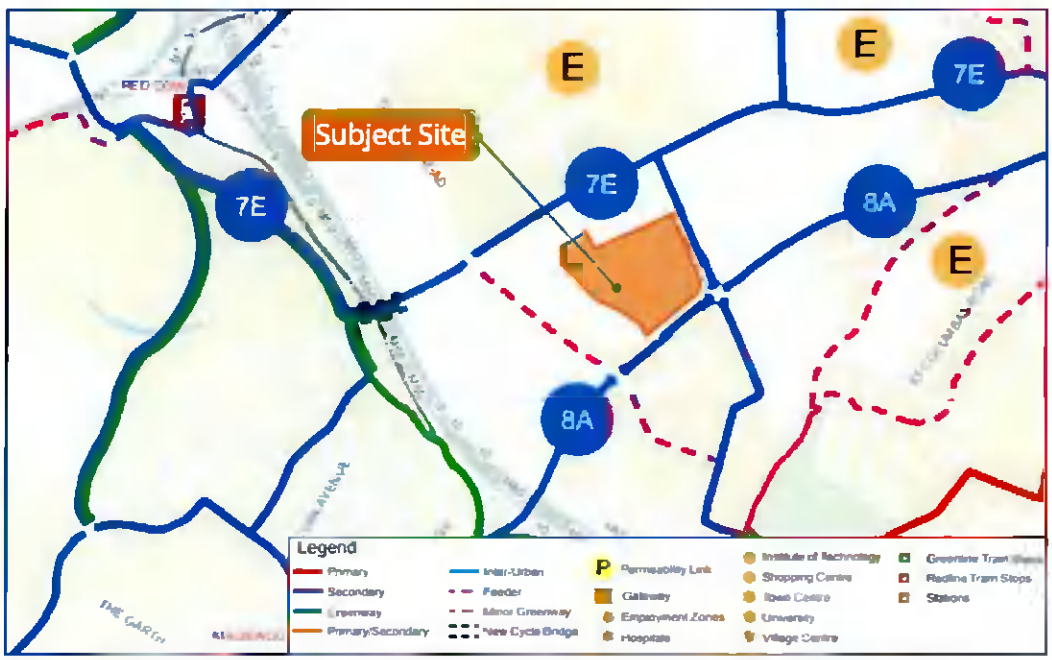


Figure 2.16: GDA Cycle Network Plan Proposals (Reference: Extract of Sheet N6)

Draft 2021 Greater Dublin Area Cycle Network Plan

2.5.2 In 2020 the National Transport Authority (NTA) initiated updated Greater Dublin Area (GDA) Cycle Network Plan 2021 which accompanies the GDA transport strategy. It provides a substantial update and expanse of the 2013 GDA Cycle Network Plan, supported with technical assessment and stakeholder input. The GDA Cycle Network comprises of substantial primary and secondary urban networks, as well as comprehensive Greenways,

interurban and feeder networks.2021 GDA Cycle Network Plan aims to strengthen access and local permeability within Dublin and GDA towns and cycling connectivity between them. The network will grow and improve the safety, efficiency, and directness of cycling for trips under 10km, acknowledging longer distance cycling commutes and recreational trips will also take place.

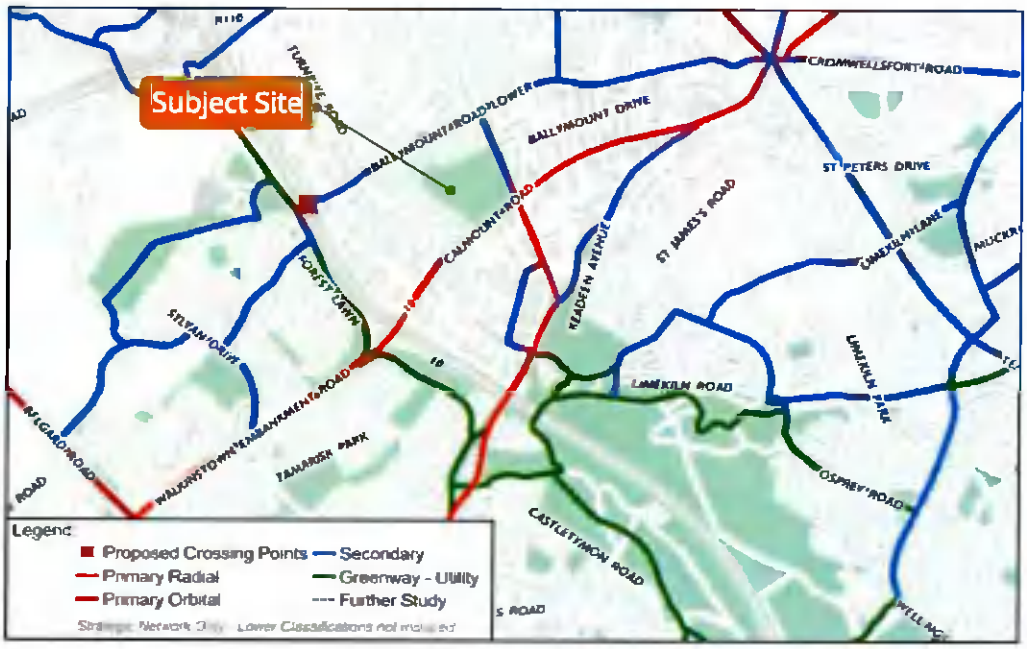


Figure 2.17: Draft GDA Cycle Network -Dublin South West (Reference: NTA Draft GDA network)

Road Infrastructure Proposals

2.5.3 The **South Dublin County Development Plan 2016-2022** proposes a "strategic road network consisting of national and regional routes". The subject site lies in close proximity to a number of road infrastructure proposals as presented in **Figure 2.18** below. These proposals include:

6-Year Proposals:

- The construction of a new road from Ballymount Avenue to Longmile Road via Robinhood;
- The upgrade of Greenhills Road including a new connection to Ballymount Avenue.

Long-term Proposals:

- Improvements to the Ballymount Industrial Estate Street network.
- The construction of a new road through the subject site from Ballymount Road Lower to Calmount Road

Figure 2.18: SDCC Strategic Road Network (Reference: Map 5 SDCC Development Plan 2016-2022)

2.6 PUBLIC TRANSPORT PROPOSALS - BUS

BusConnects

2.6.1 BusConnects is an initiative launched by the National Transport Authority with the aim of overhauling the bus system in the Dublin Region. This initiative includes review of bus services and the definition of a core bus network which comprises radial, orbital, and regional core bus corridors. It also includes enhancements to ticketing and fare systems as well as transition to a new low emission vehicle fleet.

2.6.2 The proposed fundamental changes to the network can be summarised as follows:

- Increasing the overall amount of bus services. Providing new and frequent orbital services connecting more outer parts of the city together;
- Simplifying the bus services on the key radial into "spines" where all buses will operate under a common letter system and buses will run very frequently and be more evenly spaced;
- Increasing the number of routes where buses will come every 15 minutes or less all day;
- The frequent network would become a web-shaped grid, with many interchange opportunities to reach more destinations. Everywhere that two frequent routes cross, a fast interchange is possible; and
- Additional service would be provided at peak hours to limit overcrowding.

2.6.3 The Bus Network Redesign is the first step in a series of transformative changes to Dublin's bus network over the coming years. However, the next steps in this initiative are the improvements to the infrastructure and operation of the proposed bus network which include:

- Building a network of "next generation" bus corridors on the busiest bus lines to make bus journeys faster, predictable, and reliable;
- Developing a state-of-the-art ticketing system using credit and debit cards or mobile phones to link with payment accounts and making payment much more convenient;
- Implementing a cashless payment system to vastly speed up passenger boarding times;
- A simpler fare structure, allowing seamless movement between different bus services without financial penalty;
- New bus stops with better signage and information and increasing the provision of additional bus shelters; and transitioning to a new bus fleet using low-emission vehicle technologies.

2.6.4 In relation to the subject site, following this redesign of the bus network, the proposed development will be located in close proximity to the following new BusConnects routes:

- D2 Clare Hall – City Centre – Citywest
- D4 Swords Road – City Centre – Killinarden
- D5 Edenmore – City Centre – Tallaght
- 71 Tallaght – Ballymount – Warrenmount – East Wall

2.6.5 A summary of the frequencies that can be expected on these routes is shown in **Table 2.3** while **Figure 2.13** displays the location of these routes in relation to the subject site.

Route No.	Route	Mon - Fri	Sat	Sun
D2	Clare Hall – City Centre – Citywest	15	15-20	20-30
D4	Swords Road – City Centre – Killinarden	30	30-40	40-60
D5	Edenmore – City Centre - Tallaght	30	30-40	40-60
71	Tallaght – Ballymount – Warrenmount – East Wall	30	30-60	30-60

Table 2.3: Future Bus Routes with Frequencies (minutes) (Source: BusConnects)

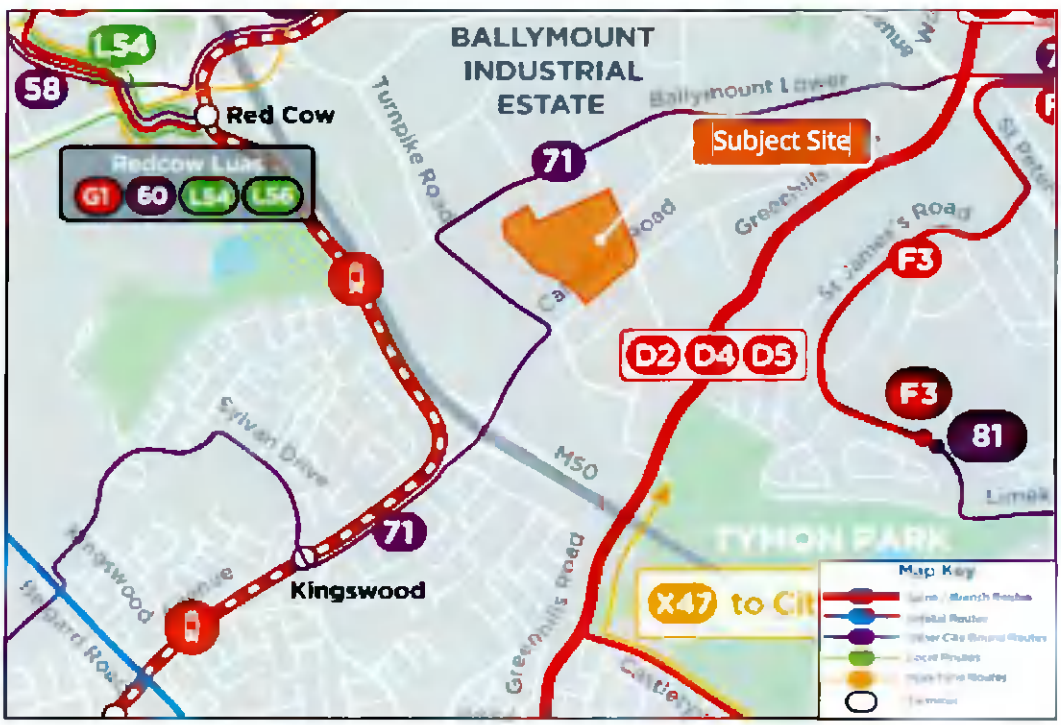


Figure 2.19 : Proposed Future Bus Network in the Vicinity of the Subject Site (Source: BusConnects)

2.6.6 A new bus corridor is proposed as a part of BusConnect programme with the aim to provide enhanced walking, cycling and bus infrastructure on key access corridors in the Dublin region. The preferred route (Route 9) connects the Greenhills to City Centre Core Bus Corridor (CBC) commences on Belgard Square West at the junction with Cookstown Way as shown in **Figure 2.20**. Bus interchanges are be located in this immediate area and will be a focus for the majority of bus routes in the Tallaght area, providing seamless interchange between bus services, Luas, and the Town Centre. From here, the CBC is routed along Belgard Square West and Belgard Square North as far as the junction with Belgard Square East.

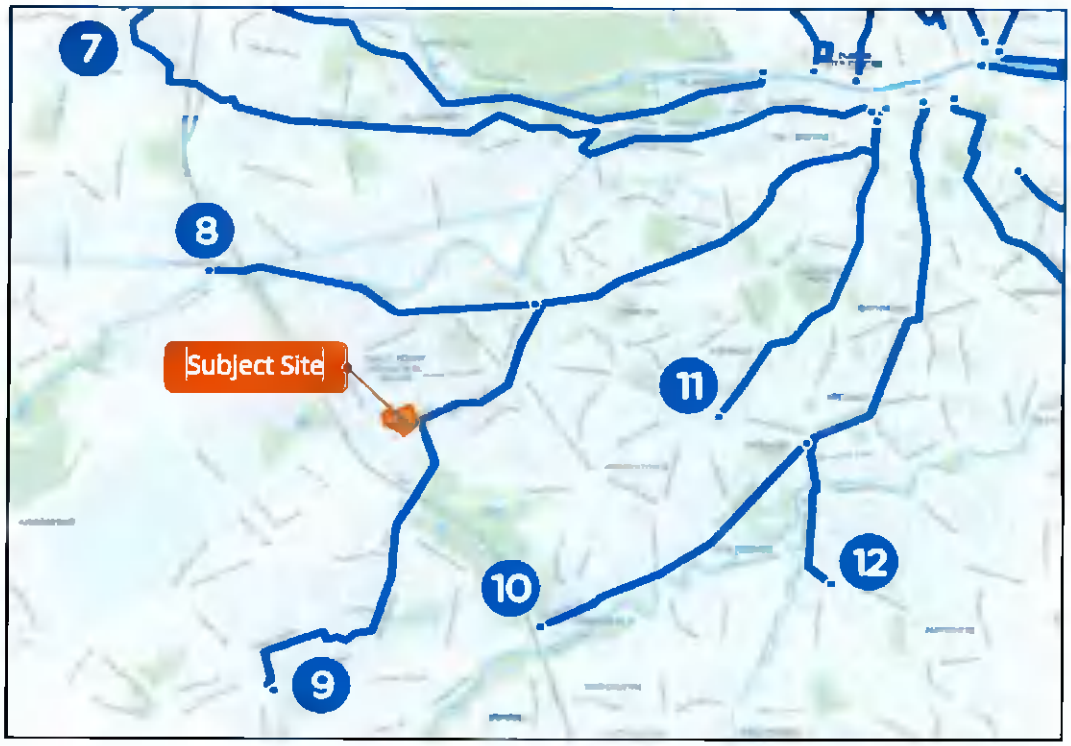


Figure 2.20: Emerging BusConnects Core Bus Corridor near the Proposed Development
(Reference: BusConnects)

2.6.7 As part of the BusConnects proposals the junction with Ballymount Avenue and Calmount Road will have significant junction improvement with the current roundabout arrangement upgraded to a traffic signal-controlled crossroad arrangement, based on the emerging bus corridor proposal. The proposed junction improvements include segregated cycle tracks and controlled crossing facilities for pedestrians and cyclists. Furthermore,

new bus stops are also proposed along the proposed bus corridor in close proximity to the subject site as illustrated in the **Figure 2.21.** As part of BusConnects Greenhills Road is to be closed to through traffic with all Walkinstown traffic redirected via the eastern section of Calmount Road which will be extended and tied into Greenhills Road just south of Walkinstown as illustrated in **Figure 2.20.**

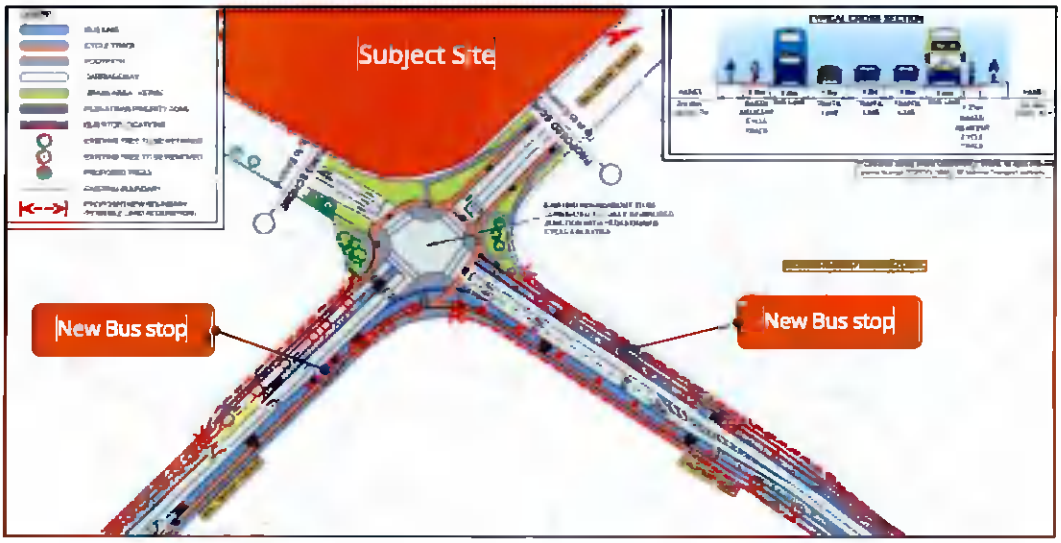


Figure 2.21: Junction Improvement near the Proposed Development

2.7 ROAD SAFETY REVIEW

2.7.1 With the objective of ascertaining the road safety record of the immediate routes leading to/from the subject site, the collision statistics as detailed on the Road Safety Authority's (RSA) website (www.rsa.ie) have been examined. The RSA website includes basic information relating to reported collisions over the most recent 11-year period, from 2005 to 2016 inclusive.

2.7.2 The RSA database records details where collision events have been officially recorded such as the when the Gardaí are present to formally record details of the incident. **Table 2.4** lists all of the collisions on the roads surrounding the site, while **Figure 2.22** presents their location.

Ref	Severity	Year	Vehicle	Circumstances	Day	Time	Casualty
1	Minor	2015	Motorcycle	Other	Wed	1600-1900	1
2	Minor	2007	Car	Other	Fri	1600-1900	1
3	Minor	2012	Car	Head-on, Right Turn	Tues	1000-1600	1
4	Minor	2011	Car	Rear End, straight	Fri	1600-1900	1
5	Minor	2007	Car	Single Vehicle Only	Sat	1000-1600	1
6	Serious	2008	Car	Head-on, Conflict	Sun	1000-1600	4
7	Minor	2007	Goods Vehicle	Pedestrian	Tues	1000-1600	1
8	Minor	2016	Motorcycle	Other	Sat	1600-1900	1
9	Minor	2013	Car	Single Vehicle Only	Fri	1900-2300	1
10	Minor	2009	Car	Other	Fri	1000-1600	1
11	Minor	2007	Goods Vehicle	Unknown	Fri	0300-0700	1
12	Minor	2014	Bicycle	Other	Wed	1000-1600	1
13	Minor	2012	Car	Rear End, straight	Tues	1000-1600	1
14	Minor	2010	Car	Rear End, straight	Fri	0700-1000	1
15	Minor	2014	Bicycle	Other	Tues	0300-0700	1
16	Minor	2005	Motorcycle	Rear End, Right Turn	Tues	0700-1000	NA

Table 2.4: Collision Records (source www.rsa.ie)

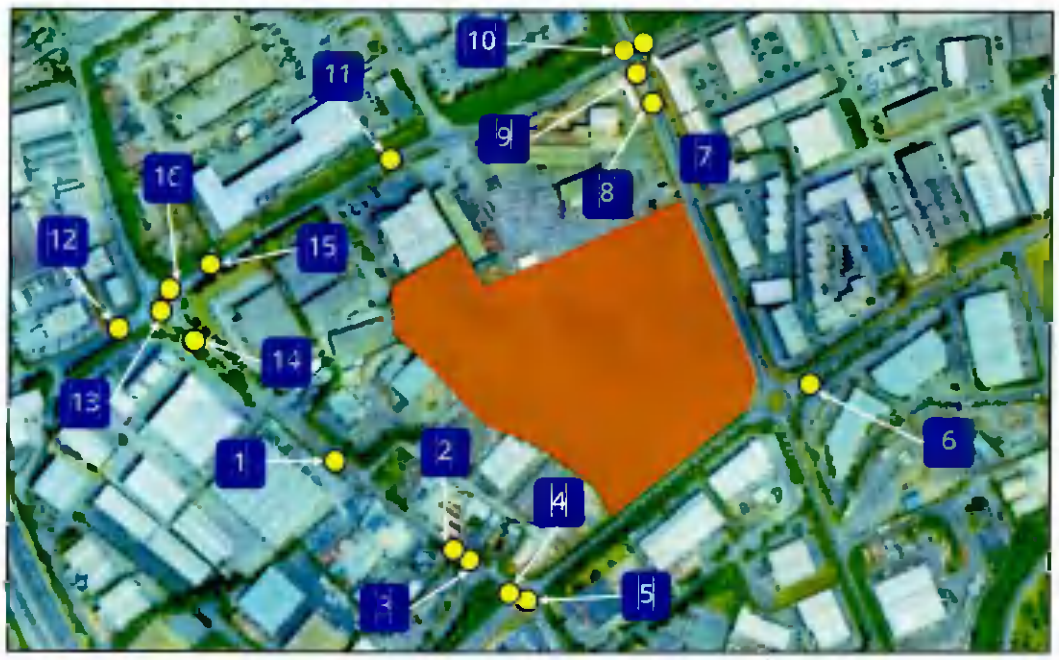


Figure 2.22: Collision Records (source www.rsa.ie)

2.7.3 From **Figure 2.22**, it is apparent that there is a number of small accidents at the junctions to the south west, north west and north east of the subject site. Looking at the details of these accidents, there appears to be no trend in the type of incident.

2.7.4 With regard to safe access to the site, there is no record of any serious incidents occurring along either the Calmount Road or Ballymount Avenue site frontages where two new site access junctions are being proposed as part of subject application.

3.0 POLICY FRAMEWORK

3.1 TRANSPORT STRATEGY FOR THE GREATER DUBLIN AREA 2016-2035

3.1.1 The *Transport Strategy for the Greater Dublin Area 2016-2035* is a document compiled by the National Transport Authority (NTA) which sets out the Strategic Transport Plan for the Greater Dublin Area for the period up to 2035.

3.1.2 This document will influence transport planning across the region until 2035 and replaces *'A Platform for Change – An Integrated Transportation Strategy for the Greater Dublin Area 2000 to 2016'.* It thereby underpins all transportation strategies, traffic management schemes and development plans prepared by Dublin City Council during this timeframe.

3.1.3 The Strategy sets out a clear hierarchy of transport users, commencing with the sustainable modes of travel such as walking, cycling and public transport users at the very top of the hierarchy. The Strategy adopts the general principle that these users should have their safety and convenience needs considered first and that the hierarchy is applied where a large share of travel is (or could be) made by walking, cycling and public transport.

3.1.4 In addition to guiding the development of specific Strategy measures, the NTA encourages that the *"transport user hierarchy should guide engineers, planners and urban designers on the order in which the needs of transport users should be considered in designing new developments or traffic schemes in the Greater Dublin Area."*

3.2 DRAFT GREATER DUBLIN AREA TRANSPORT STRATEGY 2022-2028

3.2.1 The Draft Greater Dublin Area Transport Strategy 2022-2028 has arisen from a review of the original 2016 strategy. The updated document *"sets out the framework for investment in transport infrastructure and services over the next two years".*

1.1.1. The overall aim of the Transport Strategy is "To provide a sustainable, accessible and effective transport system for the Greater Dublin Area which meets the region's climate

change requirements, serves the needs of urban and rural communities, and supports economic growth".

3.2.2 Four primary objectives have been identified as part of the Draft Greater Dublin Area Transport Strategy 2022-2028. These are:

- **An Enhanced Natural and Built Environment** - To Create a better environment and meet our environmental obligations by transitioning to a clean, low emission transport system, reducing car dependency, and increasing walking, cycling and public transport use.
- **Connected Communities and a Better Quality of Life** – To enhance the health and quality of life of our society by improving connectivity between people and places, delivering safe and integrated transport options, and increasing opportunities for walking and cycling.
- **A Strong Sustainable Economy** – To support economic activity and growth by improving the opportunity for people to travel for work or business where and when they need to and facilitating the efficient movement of goods.
- **An Inclusive Transport System** – To deliver a high quality, equitable and accessible transport system, which caters for the needs of all members of society.

3.2.3 The current draft of the Transport Strategy is currently out for public consultation until 17th December 2021.

3.3 SMARTER TRAVEL – A SUSTAINABLE TRANSPORT FUTURE

3.3.1 Smarter Travel was published in 2009 by the Department of Transport which represents the national policy documentation outlining a broad vision for the future and establishes objectives and targets for transport. The document examines past trends in population and economic growth and transport concluding that these trends are unsustainable into the future.

3.3.2 In order to address the unsustainable nature of current travel behaviour, Smarter Travel sets down a number of key goals and targets for 2020 - including:

- Total vehicle km travelled by car will not significantly increase;
- Work-related commuting by car will be reduced from 65% to 45%;
- 10% of all trips will be by cycling;
- The efficiency of the transport system will be significantly improved.

3.3.3 The document recognises that these are ambitious targets, and outlines a suite of 49 actions required to achieve these targets – summarised under the following four main headings:

- Actions aimed at reducing distances travelled by car and the use of fiscal measures to discourage use of the car;
- Actions aimed at ensuring that alternatives to the car are more widely available;
- Actions aimed at improving fuel efficiency of motorised travel; and
- Actions aimed at strengthening institutional arrangements to deliver the targets.

3.4 SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2016-2022

3.4.1 The South Dublin County Development Plan 2016-2022 sets the broad development framework for the county and the development areas within its administrative boundary. In the context of the subject proposals, the following are the relevant transport and development objectives set out in the plan: -

Economic Objectives

- **ET1 Objective 2:** To promote enterprise and employment development at locations that are proximate to or integrated with transportation and other urban land uses, to promote compact urban development and sustainable transport.
- **ET1 Objective 4:** To support the renewal of underutilised industrial areas to the east of the M50 and in proximity to Tallaght and Clondalkin Town Centres.
- **ET3 Objective 4:** To direct light industry and logistics uses to enterprise and employment zones that are proximate to the strategic and national road network.
- **ET3 Objective 6:** To ensure that business parks and industrial areas are designed to promote walking, cycling and public transport.

Transport & Mobility Objectives

- **TM1 Objective 2:** To spatially arrange activities around, and improve access to, existing and planned public transport infrastructure and services.
- **TM1 Objective 3:** To focus on improvements to the local road and street network that will better utilise existing road space and encourage a transition towards more sustainable modes of transport, while also ensuring sufficient road capacity exists for the residual proportion of the trips which will continue to be taken by private vehicle.
- **TM1 Objective 5:** To balance the needs of road users and the local community with the need to support the development of a sustainable transportation network.
- **TM3 Objective 3:** To ensure that all streets and street networks are designed to prioritise the movement of pedestrians and cyclists within a safe and comfortable environment for a wide range of ages, abilities, and journey types.
- **TM3 Objective 4:** To prioritise the upgrade of footpaths, public lighting & public realm maintenance and supporting signage on public roads/paths where a demonstrated need exists for busy routes used by runners & walkers.
- **TM4 Objective 1:** To secure the implementation of major road projects as identified within the relevant strategies and plans for the Greater Dublin Area.

- **TM4 Objective 2:** To increase competitiveness by ensuring the efficient movement of people and goods between enterprise and employment areas and the national road network.

3.5 DEVELOPMENT CONTROL

Car Parking Standards

3.5.1 Reference has been made to Table 11.23 of the South Dublin County Council Development Plan (2016-2022) which outlines the maximum car parking spaces for non-residential developments (Zone 1) in the county. The quantum of car parking for the various land uses within the proposed development is outlined in Error! Reference source not found..

Land Use	SDCC Standards	Area (sqm)	SDCC Maximum allowable Car Parking Spaces
Warehouse	1 space / 100 sqm GFA(Zone 1)	20,158	202
Office	1 per 50 sqm GFA (Zone 1)	4,194	84
Coffee Shop	1 per 15 sqm GFA (Zone 1)	213	14
		Total	300

Table 3.1: Maximum Car Parking Standards

Disabled Car Parking

3.5.2 In reference to section 1.1.5 of the Building Regulations 2010 Part M, at least 5% of the total number of car parking spaces provided at a development should be designated as disabled car parking spaces.

Electrical Vehicles

3.5.3 In reference to section 11.4.3 of the South Dublin County Council Development Plan (2016-2022), 10% of all car parking spaces provided at a development need to be equipped with EV chargers. All other car parking spaces must be designed such that EV chargers may be installed at a later date if necessary.

Bicycle Parking

3.5.4 Reference has been made to Table 11.22 of the South Dublin County Council Development Plan (2016-2022) which outlines the minimum cycle parking provision sought for new developments within the county. The required quantum of bicycle parking for the proposed development is as outlined in Error! Reference source not found..

Land Use	SDCC Standards	
	Long Term	Short Stay
Warehouse	1 per 200 sqm	-
Office	1 per 200 sqm GFA	1 per 200 sqm GFA
Café	1 per 5 staff	1 per 10 seats

Table 3.2: SDCC Bicycle Parking Standards

3.6 CITY EDGE PROJECT

3.6.1 As part of a national strategy to rejuvenate cities and large towns with new housing and employment in existing urban areas, South Dublin County Council (SDCC) and Dublin City Council (DCC) have come together in a joint urban regeneration effort known as the City Edge Project.

3.6.2 It is reported that the City Edge Project represents the most significant housing and economic opportunity ever undertaken in the Dublin Region and has the potential to be one of the largest and most transformational regeneration projects in Europe.

3.6.3 The Study Area is located in the Naas Road, Ballymount and Park West areas of the city. Located across the Naas Road, Ballymount and Park West areas of Dublin, this 700 hectare area of land is currently well served by public transport and located in close proximity to Dublin City Centre. The area is currently home to an employment base with 1,500 businesses and some 25,500 employees, along with 5,000 residents living in well-established communities.

Over time this area could be more intensely used with the potential to provide a new urban quarter accommodating up to 40,000 homes and 75,000 jobs.

3.6.4 The City Edge Project consists of three stages, with Stage 1 ongoing, Stage 2- Plan Making expected to commence later this year and Stage 3- Implementation being a longer-term process of 20+ years given the scale of the area which the project relates to.

3.6.5 The emerging objectives of the city edge project includes the following

i. Liveable city with 10-minute city principles
ii. Economic scope of 65,000-75,000 jobs
iii. Housing for 75,000-85,000 people
iv. Development of active and public transport
v. Knit into existing neighbourhoods
vi. Sustainability
vii. Deliverable and credibility

3.6.6 The Study Area of the city edge project lies a short distance to the west of the City Centre and with the right level and type of public transport, there is huge opportunity for creating a Liveable City based on the principles of walking, cycling and public transport. The Study Area is currently well served by public transport like the Luas, the Kildare Railway Line and frequent bus services as well as regional and national roads. There is however scope to significantly improve active and public transport infrastructure including new Luas's interchanges, new bus routes and cycle connections to support the existing and future population.

3.6.7 The current Development Plan does not preclude development at the subject site pending the preparation of a framework or LAP, and the statutory framework for the City Edge Project has not yet been established. There is currently no specific stated time frame or mechanism in place for the completion of the Strategic Framework and subsequently the 'plan making' stage for the City Edge Project area, and the current proposals are considered to have sufficient regard to any emerging proposals for the area in respect to traffic and transport matters, as discussed in this report.

4.0 CHARACTERISTICS OF PROPOSALS

4.1 OVERVIEW

4.1.1 The proposed mixed-use development consists of the following key elements:

- Construction of 5 no. warehouse / logistics units (Units 1, 2 3, 4 and 6), including ancillary office use and entrance / reception areas over two levels, with maximum heights of c. 17.09 metres and a combined total gross floor area (GFA) of 20,158 sq.m;
- Each warehouse / logistics unit includes car parking to the front, and service yards, including HGV loading bays and bin storage areas, to the rear of each unit. A total of 200 no. car parking spaces and 110 no. cycle spaces are provided for the 5 no. warehouse / logistics units;
- Construction of 3 no. 3 storey own-door office buildings (Block 5A, 5B and 5C) with maximum heights of c. 13.35 metres and a combined GFA of 4,194 sq.m. A total of 77 no. car parking spaces and 50 no. cycle parking spaces are provided for the proposed office buildings;
- Construction of a café/restaurant unit with a maximum height of 5.29m and a GFA of 213 sq.m to be located in the south western section of the site. The proposal includes signage for the unit, associated outdoor seating and a bin store. 14 no. car parking spaces and 10 no. cycle spaces are provided for the café/restaurant unit;
- The proposal includes 5 no. ESB substation buildings;
- The development is to be accessed off Ballymount Avenue and Calmount Road and includes for alterations and upgrades to the public footpaths and road. The development provides for vehicular and service access points, associated internal access roads, circulation areas and footpaths; and
- The proposal includes landscaping and planting, boundary treatments, lighting, PV panels, green roofs, underground foul and storm water drainage network, including connections to the foul and surface water drainage network on the public roads, attenuation areas and all associated site works and development.

4.1.2 With reference to TOT Architects scheme drawings and supplementary information, the development schedule is summarised in **Table 4.1** below. Further details of the development proposals including the site layout and transport network arrangements are illustrated in the architects' scheme drawings as submitted with this planning application.

Allocation	Ground Floor area (m^2)	First Floor area (m^2)	Second Floor area (m^2)	Sub Total (m^2)	Total (sqm)
Unit 1	2786	239.5	0	3,026	20,158
Unit 2	5667	361.2	0	6,028	
Unit 3	3268	252	0	3,520	
Unit 4	3560	267	0	3,827	
Unit 6	3463	294	0	3,757	
Office Block 5A	466	466	466	1,398	4,194
Office Block 5B	466	466	466	1,398	
Office Block 5C	466	466	466	1,398	
Coffee Shop	213	0	0	213	213
Total	-	-	-	24,565	24,565

Table 4.1: Area Schedule for the Proposed Development

4.2 PARKING PROVISION

Car Parking

4.2.1 The car parking for the development is provided in reference to the SDCC Standards detailed previously in **section 3.6**. The total provision of 291 no. car parking spaces complies with the guidelines as set out within the SDCC Development Plan (2016-2022), recommending that a maximum of up to 300 no. car parking spaces can be provided for the subject development.

4.2.2 The assignment of car parking spaces per unit / plot / land use is as tabulated in **Table 4.2.**

Allocation	Warehouse / Logistics Units					Office	Coffee Shop	Total
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 6	Unit 5		
Gross Floor Area (m^2)	3,026	6,028	3,520	3,827	3,757	4,194	213	24,565
Max. no. of Car Parking Spaces Permitted	30	60	35	38	38	84	14	300
Min. no of Disabled Parking Spaces Required	1.5	3.0	1.8	1.9	1.9	4.2	0.7	15
Total No. of Car Parking Spaces Provided	30	60	35	38	37	77	14	291
No. of *Disabled* Car Parking Spaces Provided	2	3	3	3	2	4	2	19
No. of EV Parking spaces	3	3	3	3	2	4	2	20
Car Parking proposed	**30**	**60**	**35**	**38**	**37**	**77**	**14**	**291**
Car Parking per land use	**200**					**77**	**14**	**291**

Table 4.2 Car Parking schedule for the proposed development

Disabled Parking

4.2.3 The Development Plan requires the provision of mobility impaired car parking at a rate of 5% of the total car parking spaces which equates to 15 no. spaces. The subject proposals include for a total of 19 no. mobility impaired car parking spaces and is therefore considered compliant with the Development Plan standards as per section 1.1.5 of the Building Regulations 2010.

Electric Vehicle Parking

4.2.4 In line with best practice, the subject proposals include for a total of 20 no. electric vehicle parking spaces which equates to 7% of all onsite car parking spaces. In addition to this, ducting will be provided so that electric charger facilities can be easily retrofitted at all car parking spaces at a later date, as and when demand requires.

Bicycle parking

4.2.5 Reference has been made to Table 11.22 of the South Dublin County Council Development Plan (2016-2022) which outlines the minimum cycle parking provision sought for new developments.

4.2.6 As introduced in **Error! Reference source not found.**, warehousing units requires a minimum of 1 bicycle parking space for every 200 sqm GFA whilst office element requires

a minimum of 1 space per 200 sqm GFA for both Long Term and Short-Term requirement. The café requires 1 space per 10 seats for customers and 1 space per 5 staff.

4.2.7 The requirements and the level of bicycle parking being provided for the proposed development is outlined in Table 4.3.

Land Use	Area (sqm)	SDCC Requirement		Proposed		Sub Total
		Long Stay	Short Stay	Long Stay	Short Stay	
Unit 1 (Warehouse)	3,026	15	-	20	-	
Unit 2 (Warehouse)	6,028	30	-	30	-	
Unit 3 (Warehouse)	3,520	18	-	20	-	110
Unit 4 (Warehouse)	3,827	19	-	20	-	
Unit 6 (Warehouse)	3,757	19	-	20	-	
Office	4,194	21	21	28	22	50
Coffee shop	213	1	3	4	6	10
Total						170

Table 4.3: Proposed Bicycle Parking

4.3 SITE ACCESS

4.3.1 At present, there is one private gated vehicle access point to the subject site which is located in the northeast corner of the site directly onto Ballymount Avenue as illustrated in Figure 4.1.

Figure 4.1: Existing Site Access on Ballymount Avenue Corridor (Source: Google Maps)

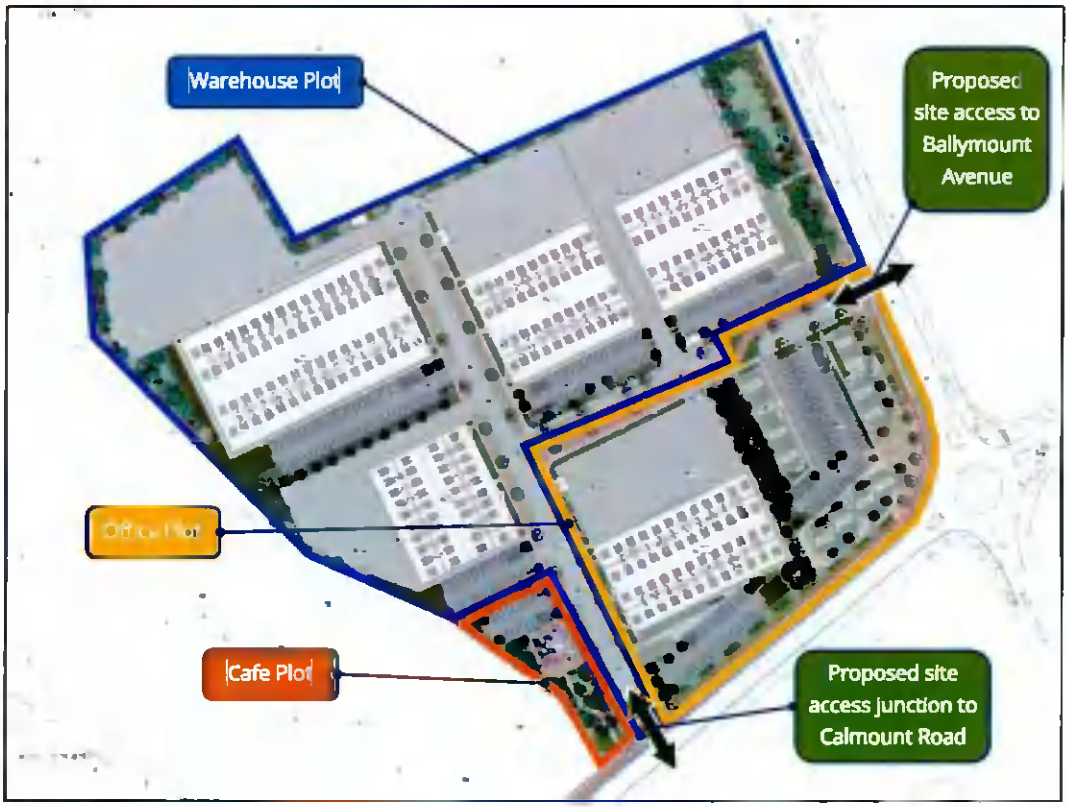


Figure 4.2: Proposed Site Layout with Proposed and Future Vehicle Access Points

4.3.2 As illustrated in **Figure 4.2** the existing site access on Ballymount Avenue will be removed and replaced with two new site access junction. The first site access incorporating a three arm 'simple' priority junction layout will be provided directly onto Calmount Road and will serve as the access/egress point for the 5 No warehouse units and café unit within the proposed development.

4.3.3 The second new site access also incorporating a 'simple' three arm priority junction layout is to be located on Ballymount Avenue and will serve as the main vehicle access/egress for the proposed office buildings.

Pedestrians and Cyclists

Figure 4.3: Proposed Pedestrian Site Access Points

4.3.4 Pedestrians and cyclist will benefit from a total of three site access/egress points. Active travel modes are to share the two proposed vehicular accesses on Calmount Road and Ballymount Avenue whilst a dedicated pedestrian/cycle connection is provided in the southeast corner adjoining the Calmount Rd/Ballymount Avenue junction.

4.3.5 Whilst vehicle movements between the warehouse/logistics plot and the adjoining office plots will not be accommodated by the scheme design, a dedicated pedestrian / cycle connection is to be provided between both plots with the objective of maximising permeability,

4.3.6 As detailed on the scheme drawings (reference DBFL drawing 210175-DBFL-TR-DR-C-1001) the main north / south internal road link through the site will benefit from the provision of segregated footpath facilities and one-way cycle tracks along both sides of the carriageway,

whilst a two-way cycle track and parallel footpath is provided east-west between Ballymount Avenue and the main internal north/south road link as presented in **Figure 4.3** and DBFL drawing 210175-DBFL-TR-DR-C-1001.

4.3.7 The implementation by the applicant of new pedestrian footpath and two-way segregated cycle track as illustrated in **Figure 4.4** and located externally along the development's entire southern boundary with Calmount Road is included as part of the scheme proposals. These works include the implementation of an informal pedestrian crossing faciality on Calmount Road in order to provide a continuous connection with the existing external pedestrian network as located to the southeast of the corridor as illustrated in **Figure 4.5**.

Figure 4.4: Proposed External Pedestrian – Cycle Infrastructure along Calmount Road

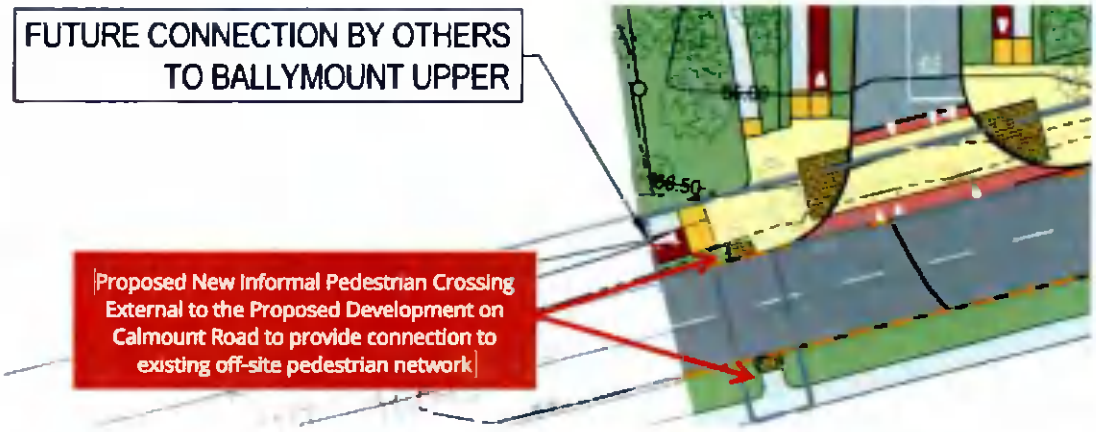


Figure 4.5: Proposed External Pedestrian Crossing Position On Calmount Road

Emergency Vehicle Access Arrangements

4.3.8 The proposed developments designs accommodate the access/egress and manoeuvring requirements of an emergency vehicle (i.e., ambulance/fire tender) without obstructing the public road or obstruct the proposed development site access.

Servicing and Deliveries

4.3.9 The ability for service vehicles such as a waste collection lorry to safely gain access/egress to the subject development has been accommodated in the scheme design. With the objective of ensuring that all such servicing requirements are facilitated on-site within the development and off the public road specific design considerations have been adopted that will enable a waste collection vehicle to pull off the road carriageway and utilise the on-site 'drop-off' /collection facility, whilst loading the vehicle.

4.4 Transport Infrastructure Design Approach

4.4.1 In accordance with DMURS the scheme proposals presented to the planning authority are the outcome of an integrated design approach from a multidisciplinary design team that seeks to deliver the proposed commercial development with connected well-designed streets that offer safe, secure, convenient, and attractive networks in addition to facilitating and subsequently promoting the uptake of sustainable forms of travel including walking, cycling and public transport.

4.4.2 DMURS seeks to balance the needs of all users, creating well-designed streets at the heart of sustainable communities. It states that:

"Well designed streets can create connected physical, social and transport networks that promote real alternatives to car journeys, namely walking, cycling or public transport"

4.4.3 DMURS also seeks to create streets which are attractive places and encourage designs appropriate to context, character and location that can be used safely and enjoyably by the public. The recommended approach includes the adoption of a more integrated model

of street design, where barriers (physical and perceived) are removed to promote more equitable interaction between users in a safe and traffic calmed urban environment

4.4.4 This integrated approach incorporates elements of urban design and landscaping that contribute to positively influence behaviour thereby reducing the necessity for conventional measures (e.g. physical barriers and road geometry) along to manage travel behaviour. The recommended approach creates environments where:

- Street Networks are similar in structure (more eligible) with higher levels of connectivity (more permeability) thus reducing travel distances.
- Higher quality street environments attract pedestrians and cyclists, promoting the use of sustainable modes of transport.
- Self-regulating streets proactively manage vehicle driver behaviour and calm traffic, promoting safer streets.
- Street and junctions are more compact, providing better value for money.

4.4.5 DMURS set outs a clear user hierarchy for scheme designers which prioritises sustainable forms of transport. Walking is the most sustainable form of transport with all journeys beginning / ending on foot. By prioritising design for pedestrians, the number of short journeys taken by car can be reduced, public transport made more accessible and the delivery of walkable communities addresses issues of social equity. DMURS reveals that cyclists must be afforded a high priority as trips by bicycle have the potential to replace motor vehicles as an alternative means of transport for short to medium range trips.

4.4.6 At the heart of DMURS is a place-based, integrated approach to road and street design with the following four overarching design principals to be applied to the design of all urban roads and streets.

- Design Principle 1: To support the creation of integrated street networks which promote higher levels of permeability and legibility for all users, and in particular more sustainable forms of transport
- Design Principle 2: The promotion of multi-functional, place-based streets that balance the needs of all users within a self-regulating environment
- Design Principle 3: The quality of the street is measured by the quality of the pedestrian environment
- Design Principle 4: Greater communication and co-operation between design professionals through the promotion of a plan-led, multidisciplinary approach to design

4.4.7 A number of the key DMURS design features incoirporated into the proposed commericla development on Calmount Road include;

- Permeability - The development strategy adopts an open network model with elements of a filtered permeability network, maximising connectivity between key local destinations through (i) the provision of a high degree of permeability and legibility for active modes of travel, (ii) safeguarding the opportunity for future connections to the north via third party lands as per SDCC objectives.
- Street Trees - A comprehensive landscape masterplan for the proposed development has been prepared by Landscape Architects. The masterplan reinforces a sense of street enclosure through the addition of street trees with appropriate canopy spreads.
- Junction Corner Radi - In response to DMURS recommendations the maximum radii of 9m has been applied to all junctions and access / egress (to/from individual plots) for which lorries are to be accommodated. In comparison, the access / egress (to/from individual plots) for where lorries will not be frequent and which the private motor car will dominate have been design with a smaller corner radii of 4.5m.
- Cycling Facilities - DMURS references the National Cycle Manual (NCM) in terms of the provision of appropriate cycling facilities. Segregated two-way cycle track

facilities are provided (i) along the entire southern site boundary on Calmount Road, and (ii) parallel to the development internal east-west aligned local street. Along the main internal north-south road carriageway, set back behind landscape verges, 1.75m wide one-way cycle tracks are provided on both sides of the street in accordance with DMURS.

- Active Street Edges - On-street activity is promoted within the internal and external streetscapes with the design ensuring that the proposed offices facilities (including those associated with the warehouse units) all directly overlook the adjoining streets with the objective of maximising passive security levels.

5.0 TRIP GENERATION AND DISTRIBUTION

5.1 INTRODUCTION

5.1.1 The following paragraphs present the process by which the potential level of person trips and associated vehicle trips, generated by the subject development have been quantified and subsequently assigned across the local road network.

5.1.2 In order to assess the operation of the proposed road network and its future capacity, a traffic model of the existing network and proposed links was created. Existing traffic levels were obtained from counts carried out at four donor sites, based in the vicinity of existing warehouse / logistic developments within surrounding Area in December 2021.

5.2 TRAFFIC SURVEYS

Junction Surveys

5.2.1 With the objective of quantifying the existing baseline, traffic movements travelling across the local road network classified junction turning counts were undertaken at key local junctions surrounding the development site on Thursday, 9th December 2021. The following local junctions as illustrated in **Figure 5.1** have been surveyed.

1) Turnpike Rd / Ballymount Rd Upper.
2) Ballymount Rd Lower / Ballymount Ave.
3) Calmount Rd / Ballymount Ave.
4) Calmount Rd / Ballymount Rd Upper
5) M50 (J10) / Calmount Rd
6) M50 (J10) / R838

5.2.2 The traffic survey established that the local networks AM, and PM peak hours occur between 0800-0900 and 1600-1700, respectively. However, in reference to the NTA Eastern Regional Traffic Model, following the introduction of the emerging BusConnects works (as discussed in **section 2.6.6**), the AM and PM peak hours are predicted to occur between 0800-0900 and 1700-1800.Accordingly, the same NTA peak hour periods have been analysed within the network analysis modelling exercise detailed in Chapter 7 of this TTA.

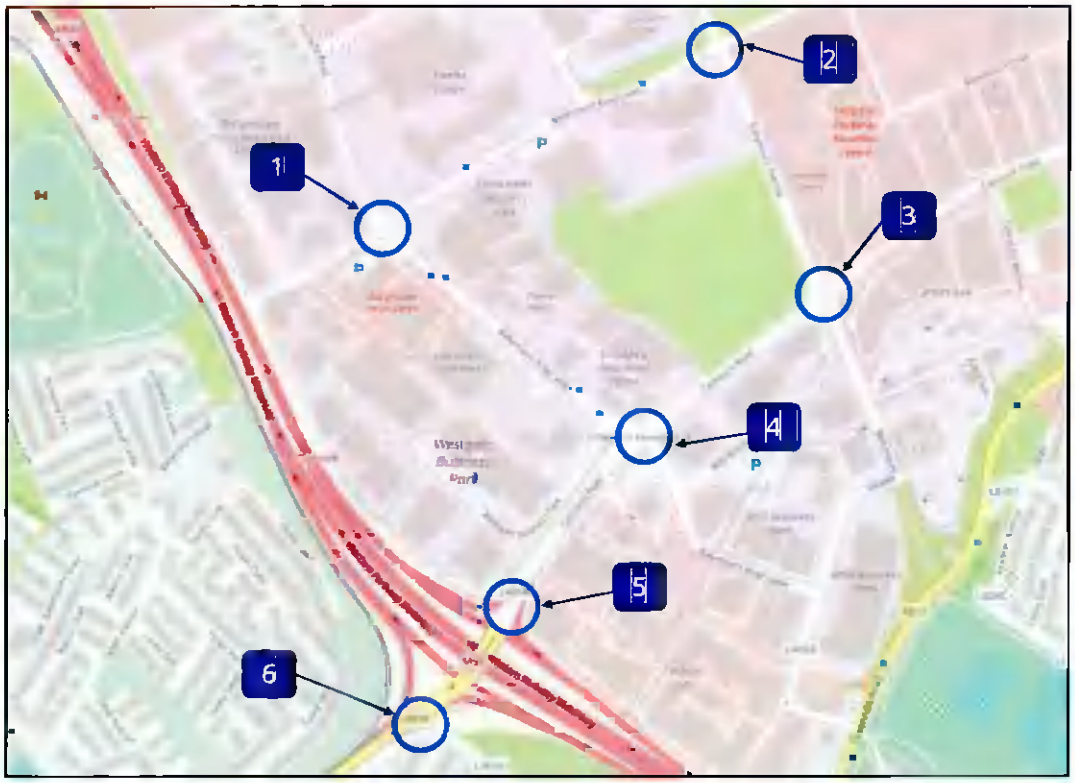


Figure 5.1: Network Traffic Survey Locations for Junction Counts

Warehouse/Logistics Donor Sites

5.2.3 With the objective of quantifying the traffic characteristics at similar type of developments, a number of existing warehouse / logistic developments across the Dublin area were surveyed. The surveys were commissioned to cover a 12-hour period between 07:00 – 19:00 on 9th December 2021 at the entrance/egress points leading to/from the following four adopted donor sites as illustrated in Figure 5.2;

- Site 1: DB Schenker, Blanchardstown, Northwest Business Park.
- Site 2: Baldonnel Business Park, Dublin
- Site 3: Homestore and More, Baldonnel Road, Dublin
- Site 4: Harvey Norman, Ballymount Avenue Road Upper

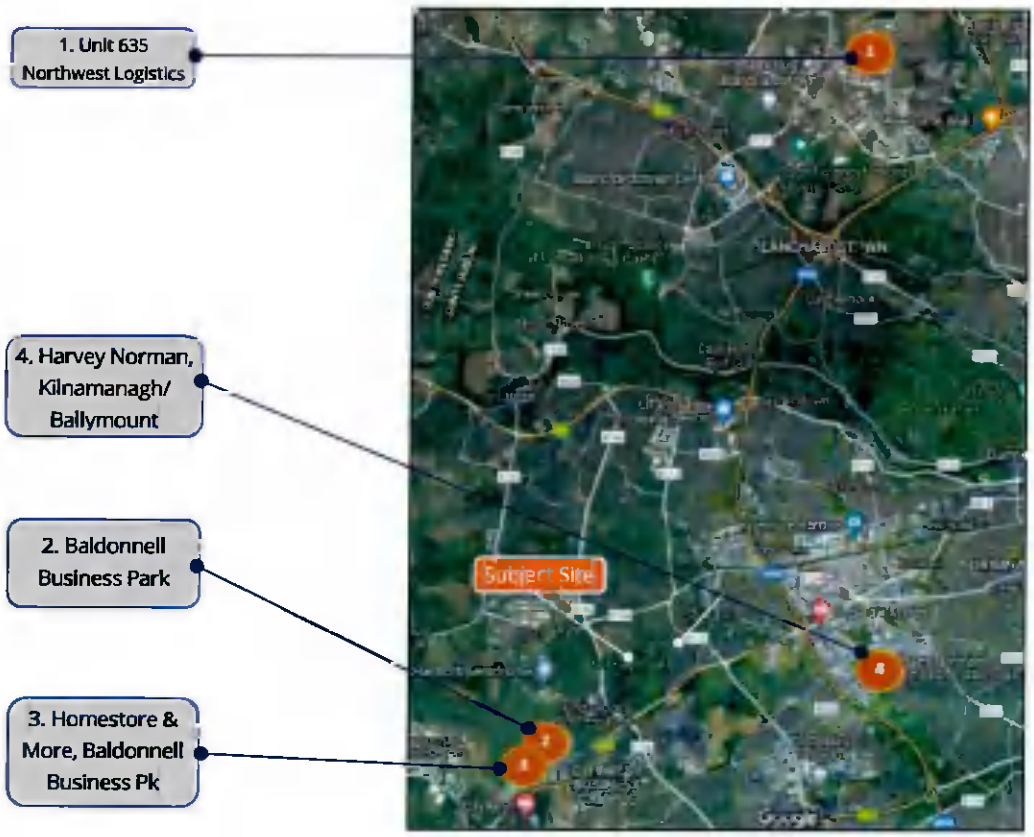


Figure 5.2: Traffic Survey Locations for Donor Sites

5.3 TRIP GENERATION AND MODE SPLIT

5.3.1 The following paragraphs present the process by which the potential level of person trips and subsequently vehicle trips, associated with the proposed development have been generated.

Modal Split

5.3.2 Based on the mode share proportions derived from the donor sites traffic data ,the potential total person trips for the warehouse/logistics area can be estimated. Accordingly, it is expected that the subject development will exhibit similar travel characteristics. The modal split for the proposed development is predicted based on the donor traffic survey data as shown in the **Figure 5.3** below.

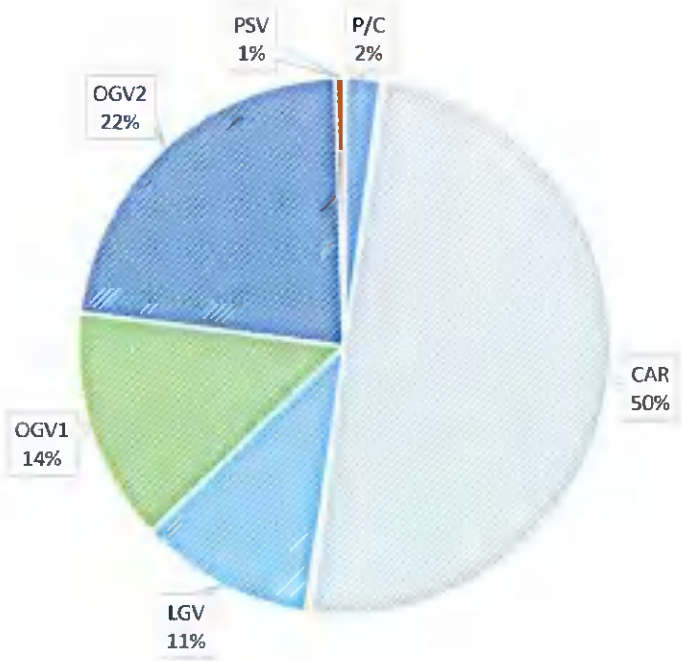


Figure 5.3 : Mode share based on the donor site data – Warehouse facility

5.3.3 The mode share data reveals that majority of the trips (48%) will be based as car drivers whilst the OGV1 (Other Vehicle Goods 1) and OGV2 (Other Vehicle Goods 2) will constitute approximately 20% and 27% trips respectively for the logistic services in the warehouse. 3% of the trips are generated by LGV (Light Goods Vehicle). The mode share data is as summarised in the table below.

Donor Site	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV
Northwest 12	0.00%	0.58%	39.88%	0.54%	13.35%	11.26%	34.39%	0.00%
Baldonnell 13	0.88%	0.00%	61.21%	0.00%	10.10%	9.30%	15.15%	3.37%
Home Store and More 14	11.80%	0.00%	48.14%	0.00%	8.19%	11.33%	20.53%	0.00%
Harvey Norman 15	0.00%	0.36%	53.90%	0.44%	9.40%	20.83%	15.07%	0.00%
Average	**3.17%**	**0.24%**	**50.78%**	**0.24%**	**10.26%**	**13.18%**	**21.29%**	**0.84%**

Table 5.1: Proposed Development Trips Categorised by Mode - Warehouse

Office Modal Split

5.3.4 Utilising the industry standard TRICS database the proposed development trip generation rates for the office area is outlined in **Table 5-2** below. Data supplied for inclusion in TRICS undergoes a procedure of validation testing, and there is no evidence from this procedure

suggesting that data from Ireland bears any significant fundamental differences to that from the other countries included. Consequently, we consider that TRICS will provide a reasonable indication of traffic generation from the proposed development.

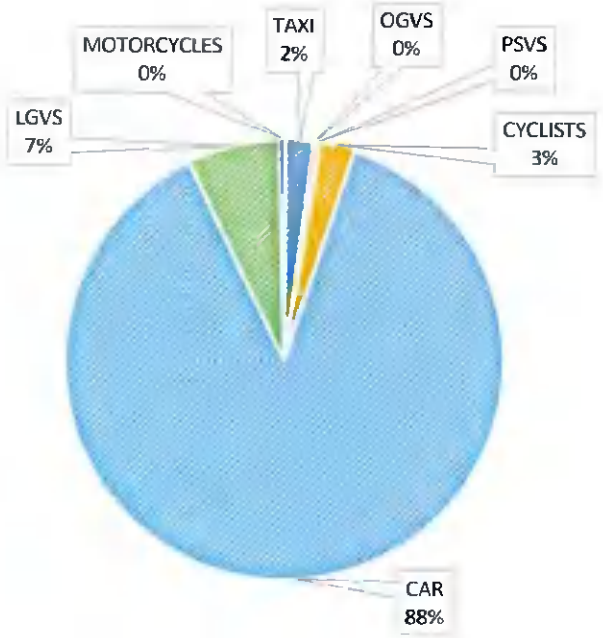


Figure 5.4 : Mode share -Office Are (Based on TRICS)

	TAXI	OGVS	PSVS	CYCLISTS	CAR	LGVS	MOTORCYCLES
Projected Modal Split - Office	3.01	0.39	0.12	2.57	87.66	6.78	0.47

Table 5.2: Proposed Development Trips Categorised by Mode - Office

Trip Generation

5.3.5 With the objective of investigating the demand that could potentially be generated by the proposed warehouse / logistic development, three potential industry standard methods are available, namely;

- **First Principles** – Prior to the development of the TRICS database this was the standard method adopted to predict development related traffic levels. It is still used for specific land uses not currently included within TRICS.
- **TRICS Database** – The TRICS database has become the industry standard method for estimating traffic levels for a range of different types (land uses) of developments and facilities. The database incorporates a comprehensive collection of UK and Irish traffic survey data recorded at existing developments which can be utilised as a comparative tool to make informed predictions regarding trip generation and modal splits at comparable developments.
- **Donor Sites** – The identification, survey, and analysis of an existing local facility, which exhibits the same land use and operational characteristics to that being considered for planning / construction.

5.3.6 For the trip generation of the proposed warehouse / logistics element of the proposed development a review of trip generation factors premeditated from analysing similar type warehouse developments across the Dublin area was undertaken at the four **Donor Sites** as mentioned in **section 5.2.3** above. DBFL consider the comparison and estimation of Trip Generation Levels based on the Donor Sites a reasonable representation and indication of the potential traffic generation arising from the warehouse/logistics units of the proposed development. DBFL have further accounted for the varying trip rate to be applied to the office area as derived from the TRICS database and as attached within **Appendix C** of this TTA.

5.3.7 The trip generation applied for the proposed office was derived from the industry norm TRICS database predicting a portion of the traffic to enter/exit the proposed development onto Ballymount Avenue. The trips predicted to be developed due to the proposed on site café was done according to first principles. This method assumed a robust approach accounting for all available parking spaces (14 no.) to both attract and generate 100% trip utilisation for the peak hours, equating to 28 no. two way trips in both the AM and PM Peak periods. Table 5.2 below outlines the trip distribution predicted for the proposed development on Calmount Road.

Proposed Development Trip Distribution

5.3.8 The level of vehicular traffic predicted to be generated by the scheme proposals is summarised in **Table 5.2** below. For the adopted Opening Year of **2025** and Future Design Years of **2028** (matching the modelling data extracted from the core bus corridor (CBC) initiatives along Calmount Road) and **2043** (Opening Year of CBC +15 years), the distribution of proposed development traffic as proposed by DBFL is presented in **Appendix A.**

Land Use	AM (08:00-09:00)			PM (17:00-18:00)		
	Inbound	Outbound	Two Way	Inbound	Outbound	Two Way
Office	45	6	52	4	34	38
Warehouse	19	8	27	8	14	23
Cafe	14	14	28	14	14	28

Table 5.2: Proposed Development Vehicle Trip Generation

5.4 TRAFFIC GROWTH

5.4.1 The TTA adopts an Opening Design Year of 2025 as it is forecasted that the entire development will be occupied by then. In accordance with TII (NRA) Guidance, Future Design years (aligning with the NTA modelling extracts of the committed development of the core bus corridor no.9) of 2028 and 2043 have therefore been adopted.

5.4.2 Although traffic growth may not increase at the rates once predicted, to ensure a robust analysis of the impact of traffic upon the local road network we have adopted growth rates using the Transport Infrastructure Ireland (TII) "Travel Demand Projections". Table 6.1 as outlined within **Table 5.3** below:

Region	Name	Low Sensitivity Growth				Central Growth				High Sensitivity Growth			
		2016-2030		2030-2050		2016-2030		2030-2050		2016-2030		2030-2050	
		LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1	Dublin	1.0146	1.0280	1.0034	1.0116	1.0162	1.0295	1.0051	1.0136	1.0191	1.0328	1.0087	1.0172

Table 5.3: Proposed Development Vehicle Trip Generation

5.4.3 Applying the annual factors (central growth) as outlined in **Table 5.3** above for the adopted Opening Year of 2025 and Future Design Years of 2028 (+5 years) and 2043 (+15 years), the following growth rates have been adopted to establish corresponding 2025, 2028 and 2043 baseline network flows: -

- 2022 to 2025 – 1.04939 (or 4.94%);
- 2021 to 2028 – 1.10122 (or 10.12%); and
- 2021 to 2043 – 1.21240 (or 21.24%).

5.4.4 The 'baseline' Do-Nothing traffic movements for the periods 2025, 2028 and 2043 are presented in **Appendix A.**

6.0 NETWORK IMPACT

6.1 ASSESSMENT SCOPE

6.1.1 Two different traffic scenarios have been assessed, namely (a) the 'Base' (Do-Nothing) traffic characteristics and (b) the 'Post Development' (Do-Something) traffic characteristics.

6.1.2 The proposed development traffic flows are then added to the network's 'Base' traffic flows to establish the new 'Post Development' traffic flows. A new bus corridor is proposed as a part of BusConnect programme with the aim to provide enhanced walking, cycling and bus infrastructure on key access corridors in the Dublin region. The preferred route (Route 9) connects the Greenhills to City Centre Core Bus Corridor (CBC) commences on Belgard Square West at the junction with Cookstown Way as shown in Chapter 2 of this report (Figure 2.20).

6.1.3 As part of the BusConnects proposals the junction with Ballymount Avenue and Calmount Road will have significant junction improvement with the current roundabout arrangement upgraded to a traffic signal-controlled crossroad arrangement, based on the emerging bus corridor proposal. The 'Future Demand Scenarios' of both Chapter 6 and Chapter 7 of this report accounts for the CBC upgrades and has made use of the NTA model extracts.

6.1.4 In summary the following scenarios are considered: -

Do Nothing:

- A1 – 2025 Base Flows;
- A2 – 2028 Base Flows; and
- A3 – 2043 Base Flows

Do Something:

- B1 - 2025 Do Nothing (A1) + Proposed Development Flows;
- B2 - 2028 Do Nothing (A2) + Proposed Development Flows; and
- B3 - 2043 Do Nothing (A3) + Proposed Development Flows.

Assessment Periods

6.1.5 In reference to the NTA easter Traffic Model the AM and PM peak hour flows have been adopted as being 08:00-09:00 and 17:00-18:00 respectively.

Network Vehicle Flows

6.1.6 The following Figures as included in **Appendix A** present the vehicle flows across the local road network for each of the adopted development scenarios: -

- **Figure 2** – 2025 Do Nothing (Scenario A1);
- **Figure 3** – 2028 Do Nothing (Scenario A2);
- **Figure 4** – 2043 Do Nothing (Scenario A3);
- **Figure 7** – 2025 Do Something; (Scenario B1);
- **Figure 8** – 2028 Do Something (Scenario B2); and
- **Figure 9** - 2043 Something (Scenario B3).

6.2 NETWORK IMPACT

6.2.1 The Institution of Highways and Transportation document 'Guidelines for Traffic Impact Assessments' states that the impact of a proposed development upon the local road network is considered material when the level of traffic it generates surpasses 10% and 5% on normal and congested networks respectively. When such levels of impact are generated a more detailed assessment should be undertaken to ascertain the specific impact upon the network's operational performance. These same thresholds are reproduced in the NRA document entitled 'Traffic and Transport Assessment Guidelines' (2014).

6.2.2 In accordance with the IHT and NRA (TII) guidelines we have undertaken an assessment to establish the potential level of impact upon the key junctions of the local road network. To enable this calculation to be undertaken we have based the analysis upon the 2025 Opening Year, 2028 Future Design Year and 2043 Future Design Year scenarios.

6.2.3 **Table 6.1** below details the specific scale of network impact predicted at each of the key local off-site junctions during the 2025, 2028 and 2043 Design Years.

6.2.4 This table reveals that the impact at the external junctions on the surrounding road network will be sub threshold with maximum impacts predicted to be significantly below the 10% on normal networks (and 5% on congested networks) for all design year scenarios.

6.2.5 **Figure 6.1** outlines the network impact in the future design year of 2043 in terms of two-way vehicle trips to/from the proposed development site and resulting percentage increase in the surrounding key junctions.

JUNCTION		Year	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
			DN	DS	% Impact	DN	DS	% Impact
1	Ballymount Rd Upper Junction / Ballymount Road Lower	2025	1768	1775	0.39%	1136	1143	0.56%
		2028	1429	1436	0.48%	1940	1946	0.33%
		2043	1575	1580	0.33%	1447	1452	0.36%
2	Ballymount Rd Lower / Ballymount Ave	2025	1735	1766	1.83%	1369	1398	2.12%
		2028	1553	1569	0.98%	2212	2226	0.63%
		2043	1805	1821	0.84%	1799	1813	0.77%
3	Calmount Rd / Ballymount Ave	2025	1157	1221	5.47%	883	940	6.48%
		2028	3016	3092	2.52%	1792	1861	3.88%
		2043	3084	3160	2.47%	2134	2203	3.25%
4	Calmount Road/ Ballymount Road Upper	2025	2995	3062	2.24%	2196	2259	2.83%
		2028	3789	3847	1.53%	3322	3375	1.60%
		2043	4275	4337	1.46%	3362	3419	1.69%
5	M50 (J10) / Calmount Rd	2025	3448	3506	1.68%	2597	2650	2.04%
		2028	4457	4508	1.15%	3488	3535	1.34%
		2043	4981	5037	1.11%	3679	3730	1.37%
6	M50 (J10) / R838 Bothar Katharine Tynan	2025	2483	2518	1.43%	2404	2438	1.42%
		2028	2446	2474	1.14%	3131	3159	0.90%
		2043	2941	2971	1.01%	3959	3990	0.76%

Table 6.1: Recorded Network Impact at Key Local Junctions

6.2.6 For the analysis of this proposed development, **Table 6.1** indicates that none of the six local junctions assessed will experience an impact exceeding the 10% threshold that classifies a material impact. **Figure 6.1** below outlines the network impact in the future design year of

2043 in terms of two-way vehicle trips to/from the proposed development site and the resulting percentage increase. Despite the low vehicle volumes predicted due to be generated by the proposed development, the site access junctions have been investigated further to establish their future operational performances following the implementation of the proposed residential development.

6.2.7 The resulting percentage increase in traffic flows as a result of the traffic generated by the proposed development is established as below the 10% threshold (5% for congested networks) at the local key off-site junctions.

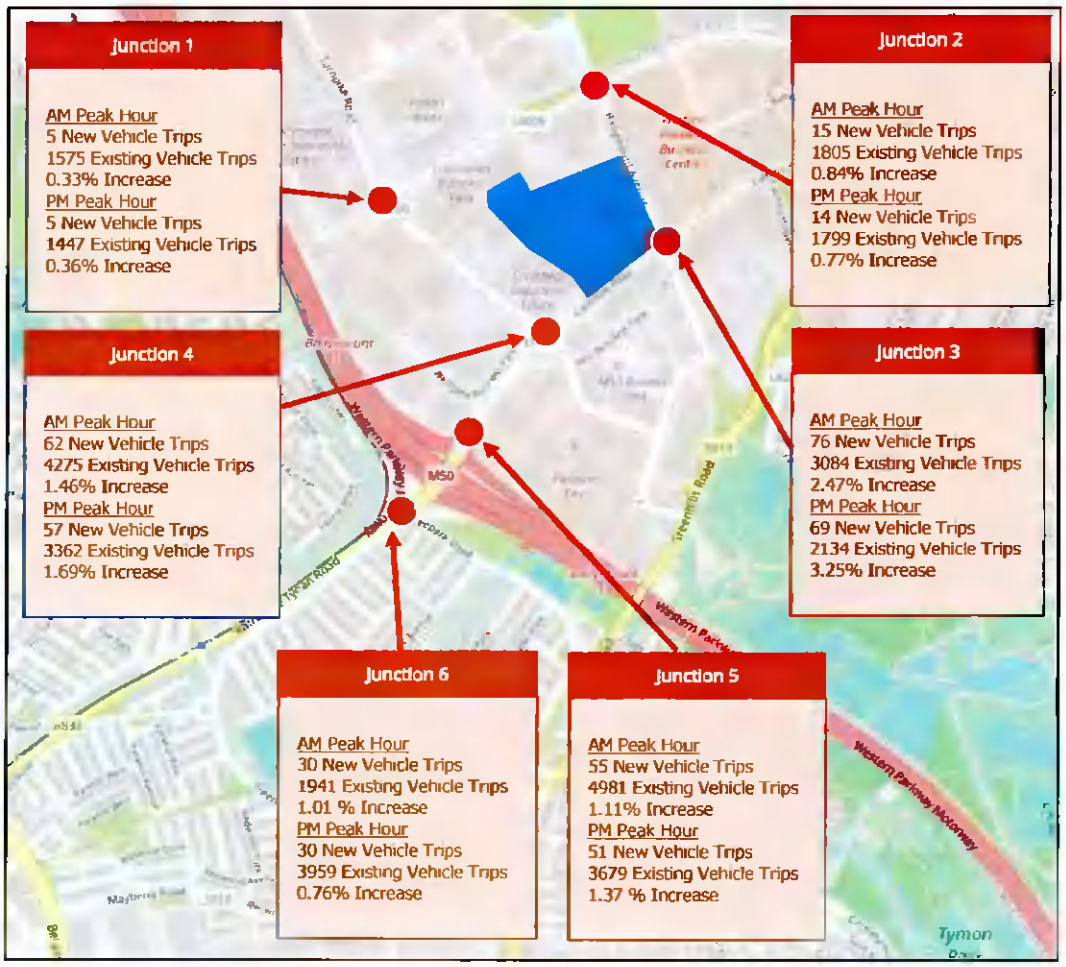


Figure 6.1: Increase in Vehicle Trips Generated Through Key Junctions (2043 Future Design Year)

7.0 NETWORK ANALYSIS

7.1 INTRODUCTION

7.1.1 The operational assessment of the local road network has been undertaken using the Transport Research Laboratory (TRL) computer package Junctions 9 PICADY for the site access junction.

7.1.2 When considering priority-controlled junctions, a Ratio of Flow to Capacity (RFC) of greater than 0.85 would indicate a junction to be approaching operational capacity. A 90-minute AM and PM period has been simulated, from 07:45 to 09:15 and 16:45 to 18:15. Traffic flows were entered using an Origin-Destination table for the peak hours.

7.1.3 As the site does not currently generate any traffic flows, only a Do-Something assessment has been undertaken in the following section.

7.1.4 In order to determine if the proposed site access junctions will cater for predicted traffic level of traffic generation while including committed and future developments, the NTA Eastern Regional model was used to extract modelled and predicted vehicular flows incorporating the future BusConnects proposals as planned as infrastructural upgrades. Vehicular flows and traffic demand for the future design years 2028 and 2043 was extracted (as the available modelled demand scenarios) and tested to determine a conservative 'worst case' scenario of the operation performance of both proposed site accesses junctions.

7.2 SITE ACCESS JUNCTION ANALYSIS – CALMOUNT (WAREHOUSE ACCESS)

7.2.1 The results of the operational assessment of this proposed priority-controlled site access junction during the weekday morning and evening peaks are summarised in **Table 7.1**. The arms were labelled as follows within the PICADY model:

Arm A: Calmount Road (West)

Arm B: Site Access

Arm C: Calmount Road (East)

7.2.2 The results reveal that even in the 2043 Future Design Year scenario considering the BusConnects inanities as well as predicted attraction onto Calmount Road based on

infrastructural upgrades, the proposed site access junction is predicted to be operating with significant reserve capacity remaining available. A maximum RFC of only 0.06 and associated queue length of 0.1 pcu is predicted which is significantly below the RFC value of 0.85 that signifies that a priority controlled is approaching operational capacity

Scenario	Stream	AM (08:00-09:00)		PM (17:00-18:00)	
		Queue (PCU)	RFC	Queue (PCU)	RFC
2028 Do Something Scenario	B-AC	0.1	0.05	0.1	0.06
	C-B	0.0	0.01	0.0	0.01
2043 Do Something Scenario	B-AC	0.0	0.05	0.1	0.06
	C-B	0.0	0.01	0.0	0.01

Table 7.7.1: Site Access Modelling Results (Access 1 – Calmount Road)

7.3 SITE ACCESS JUNCTION ANALYSIS – BALLYMOUNT (OFFICE ACCESS)

7.3.1 The results of the operational assessment of this proposed priority-controlled site access junction during the weekday morning and evening peaks are summarised in **Table 7.1.** The arms were labelled as follows within the PICADY model:

Arm A: Ballymount Avenue (South)

Arm B: Site Access

Arm C: Ballymount Avenue (North)

Scenario	Stream	AM (08:00-09:00)		PM (15:15-16:15)	
		Queue (PCU)	RFC	Queue (PCU)	RFC
2028 Do Something Scenario	B-AC	0.1	0.07	0.5	0.05
	C-B	0.0	0.04	0.2	0.00
2043 Do Something Scenario	B-AC	0.1	0.07	0.5	0.05
	C-B	0.0	0.04	0.2	0.00

Table 7.2: Site Access Modelling Results (Access 2 – Ballymount Avenue)

7.3.2 The results reveal that the site access on Ballymount Avenue is to predicted to operate with significant reserve capacity with a highest RFC value of 0.07 and associate queue length of 0.1 pcu predicted falling significantly below the 0.85 threshold.

8.0 SUMMARY AND CONCLUSION

8.1 SUMMARY

8.1.1 DBFL Consulting Engineers (DBFL) has been commissioned to compile a Traffic and Transport Assessment (TTA) Report in support of the planning application for a mixed-use commercial development on a site located north of Calmount Road and west of Ballymount Avenue, Ballymount Industrial Estate, Dublin 12. The proposed development consists of the following key elements:

- Construction of 5 no. warehouse / logistics units (Units 1, 2 3, 4 and 6), including ancillary office use and entrance / reception areas over two levels, with maximum heights of c. 17.09 metres and a combined total gross floor area (GFA) of 20,158 sq.m;
- Each warehouse / logistics unit includes car parking to the front, and service yards, including HGV loading bays and bin storage areas, to the rear of each unit. A total of 200 no. car parking spaces and 110 no. cycle spaces are provided for the 5 no. warehouse / logistics units;
- Construction of 3 no. 3 storey own-door office buildings (Block 5A, 5B and 5C) with maximum heights of c. 13.35 metres and a combined GFA of 4,194 sq.m. A total of 77 no. car parking spaces and 50 no. cycle parking spaces are provided for the proposed office buildings;
- Construction of a café/restaurant unit with a maximum height of 5.29m and a GFA of 213 sq.m to be located in the south western section of the site. The proposal includes signage for the unit, associated outdoor seating and a bin store. 14 no. car parking spaces and 10 no. cycle spaces are provided for the café/restaurant unit;
- The proposal includes 4 no. ESB substation buildings;
- The development is to be accessed off Ballymount Avenue and Calmount Road. The development provides for vehicular and service access points, associated internal access roads, circulation areas and footpaths; and

- The proposal includes landscaping and planting, boundary treatment, lighting, security fencing, PV panels, green roofs, and all associated site works including underground foul and storm water drainage network and attenuation areas.

8.1.2 The TTA presents the findings of a traffic analysis undertaken to determine the potential level of influence generated by a proposed development upon the local road network and subsequently ascertain the existing and future operational performance of the local transport system

8.1.3 This Traffic and Transport Assessment has been undertaken to quantify the potential influence of the proposed Warehouse/Logistics/Office development on lands at Calmount Road, upon the operational performance of the local area road network. Our methodology incorporated a number of key inter-related stages, including: -

- Site Audit;
- Planning File Review;
- Policy Review;
- Traffic Surveys;
- Trip Generation, Distribution and Assignment;
- Network Impact; and
- Network Assessment

8.1.4 During the development of this report, traffic turning count surveys have been commissioned specifically for this assessment, with the objective of providing background information relating to existing traffic movement patterns across the local road network. This information has been supplemented with data obtained from site audits of the local road network and data from the NTAs Eastern Regional Model, subsequently enabling the identification of baseline local travel characteristics and an appreciation of both the existing and emerging (BusConnects Core Bus Corridor proposals) local receiving environment from a transportation perspective.

8.1.5 Pedestrians/cyclists will benefit from a total of three (3) access/egress points in addition to the provision of segregated footpath and cycle tracks as follows

i. along both sides of the main north south aligned internal road and

ii. along at local at least one side of the internal east-west aligned internal road. Whilst vehicular movements between both site access functions will not be accommodated by the scheme design, with the objective of maximising the permeability for active travel modes, a footpath and cycle track connection is proposed which will enable convenient access internally between site access points from the warehouse/Logistics plot to/from the adjoining office plot.

iii. for the implementation of new pedestrian footpath and two-way segregated cycle track externally along the development's entire southern boundary with Calmount road.

8.1.6 The subject site benefits from the access to public transport facilities with Dublin Bus operating three bus routes in close proximity to the subject site. These existing services provide connections to Clare Hall, Tallaght, City Centre, Drimnagh, Grand Canal Dock and City West. The proposed development site lies within walking distance to the Luas Red Line, which provides access to Dublin City Centre to the east and Tallaght and Saggart to the west.

8.1.7 A new Core Bus Corridor (CBC) is proposed as a part of NTA's BusConnects programme with the aim to provide enhanced walking, cycling and bus infrastructure on key access corridors in the Dublin region. The preferred CBC Route 9 alignment via Greenhills will connect the City Centre with Tallaght. As part of the CBC proposals new bus interchanges are located in close proximity to the subject site, providing seamless interchange between bus services, Luas, and a comprehensive range of urban destinations.

8.1.8 In reference to Chapter 4 it has been demonstrated that an appropriate number of bicycle and car parking is being provided on-site as part of the scheme proposals.

8.1.9 With the objective of ascertaining the road safety record of the immediate routes leading to/from the subject site, the collision statistics as detailed on the Road Safety Authority's (RSA) website (www.rsa.ie) have been examined. With regard to safe access to the site, there is no record of any serious incidents occurring along either Calmount Road or Ballymount Avenue at the locations where two new site access junctions are proposed.

8.1.10 Based on the adopted Donor sites (Warehouses) and TRICS (Office) derived trip rate data, the subject development proposals could potentially generate a total of 70 no. two-way vehicle trips in the morning peak hour and 53 no. two-way vehicle trips in the evening peak hour.

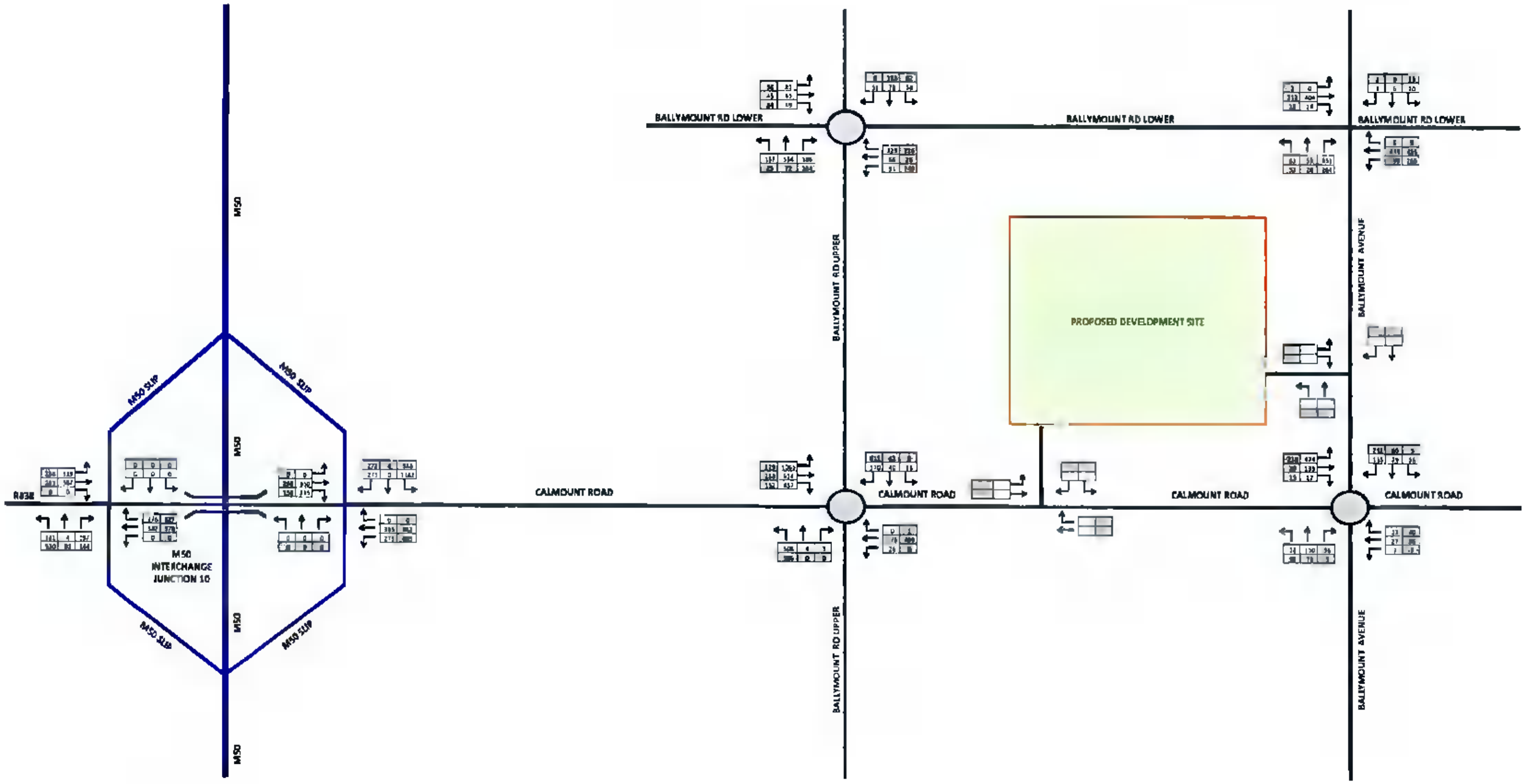
8.1.11 The resulting percentage increase in traffic flows as a result of the traffic generated by the proposed development is established as being well below the 10% threshold (5% for congested networks) at the adjacent local key off site junctions. The PICADY analysis of the proposed two new site access junctions on Calmount Road and Ballymount Avenue respectively demonstrates that both site access junctions will operate will within capacity in each of the adopted future year scenarios.

8.2 CONCLUSION

8.2.1 Based upon the information and analysis detailed within this Traffic and Transport Assessment it has been demonstrated that the impact on the surrounding road network, as a result of the proposed development will not adversely impact the operational performance of local junctions. Furthermore, the proposal site access junctions are forecast to operate with significant levels of reserve capacity in the future design years. This is based on the anticipated levels of traffic generated by the proposed warehouse / logistic/office development and the information and analysis summarised in the above report.

8.2.2 It is concluded that the proposals represent a sustainable and practical approach to development on the subject zoned lands and with no material traffic or road safety related reasons that should prevent the granting of planning permission for the proposed development.

Appendix A: Traffic Flow Diagram



Dublin Office:
Waterford Office:

Project:

Warehouse/Logistics Development at Calmount Road, Ballymount, Dublin 12
Ballymount, Dublin 12

DRG. Title:

Network Traffic Flows - Vehicles
2022 Base Flows

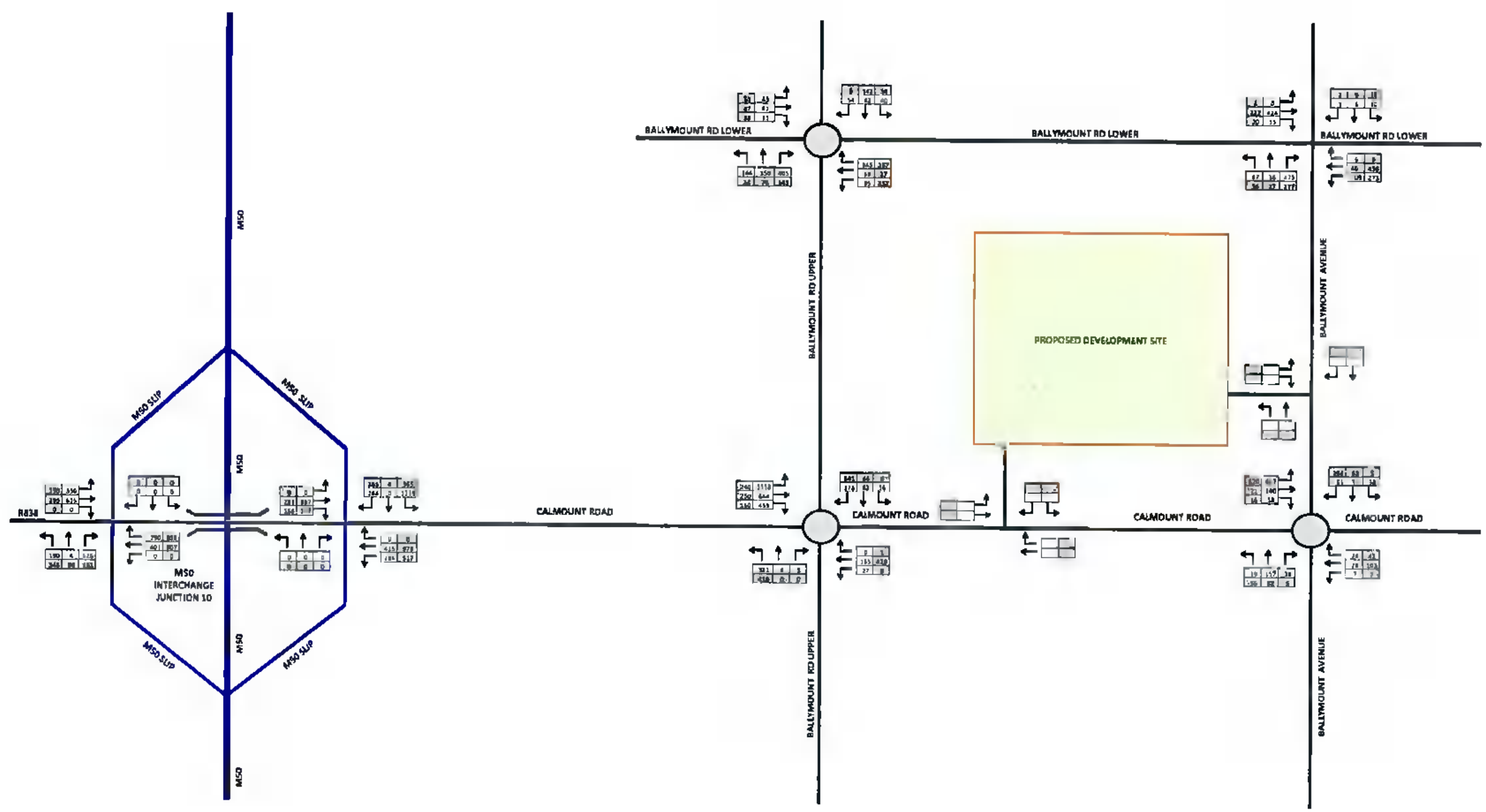
Key:

AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

Dwn	Chd	Date:
VJ		08/02/2022

Ref: p220175\calcs\excel\Traffic

Figure: 1

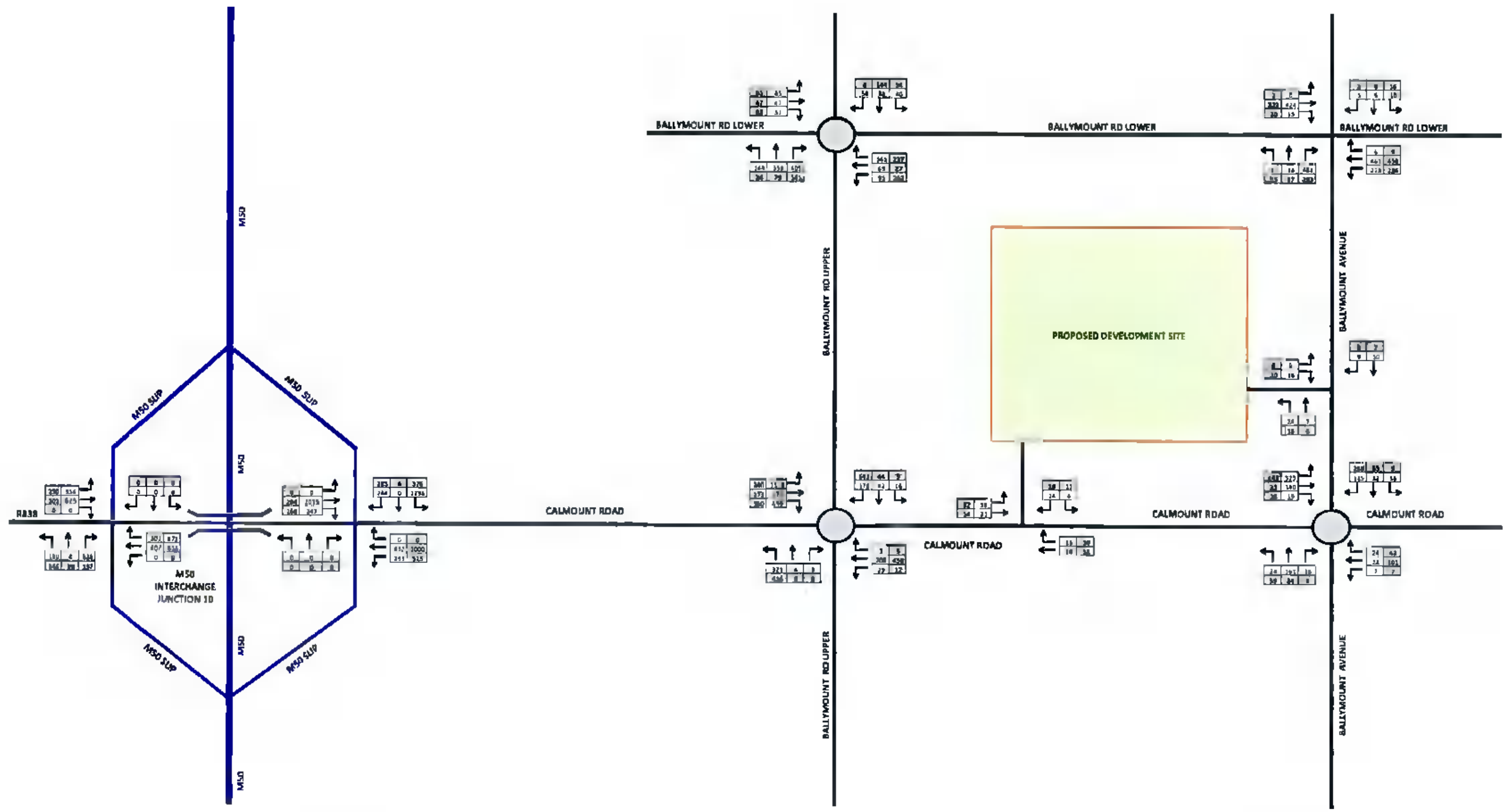


Project	Warehouse/Logistics Development at Calmount Road, Ballymount, Dublin 12 Ballymount, Dublin 12	
Dwg. Title	Network Traffic Flows - Vehicles 2025 Do Nothing	

Key
AM Peak Hour (08.00 to 09.00)
PM Peak Hour (17.00 to 18.00)

2019-2030 Medium Growth		
4075	1.0167	1.04938

Drwn	Chd	Date
VJ		
Ref	p210175\ca s\excel\Traffic	
Figure	1	Rev.



DBFL Consulting Engineers

Dublin Office:

Waterford Office:

Project	
Warehouse/Logistics Development at Calmount Road, Ballymount, Dublin 12 Ballymount, Dublin 12	
DRG Title	
Network Traffic Flows - Vehicles 2025 Do Something	

Key

AM Peak Hour (08:00 to 09:00)

PM Peak Hour (17:00 to 18:00)

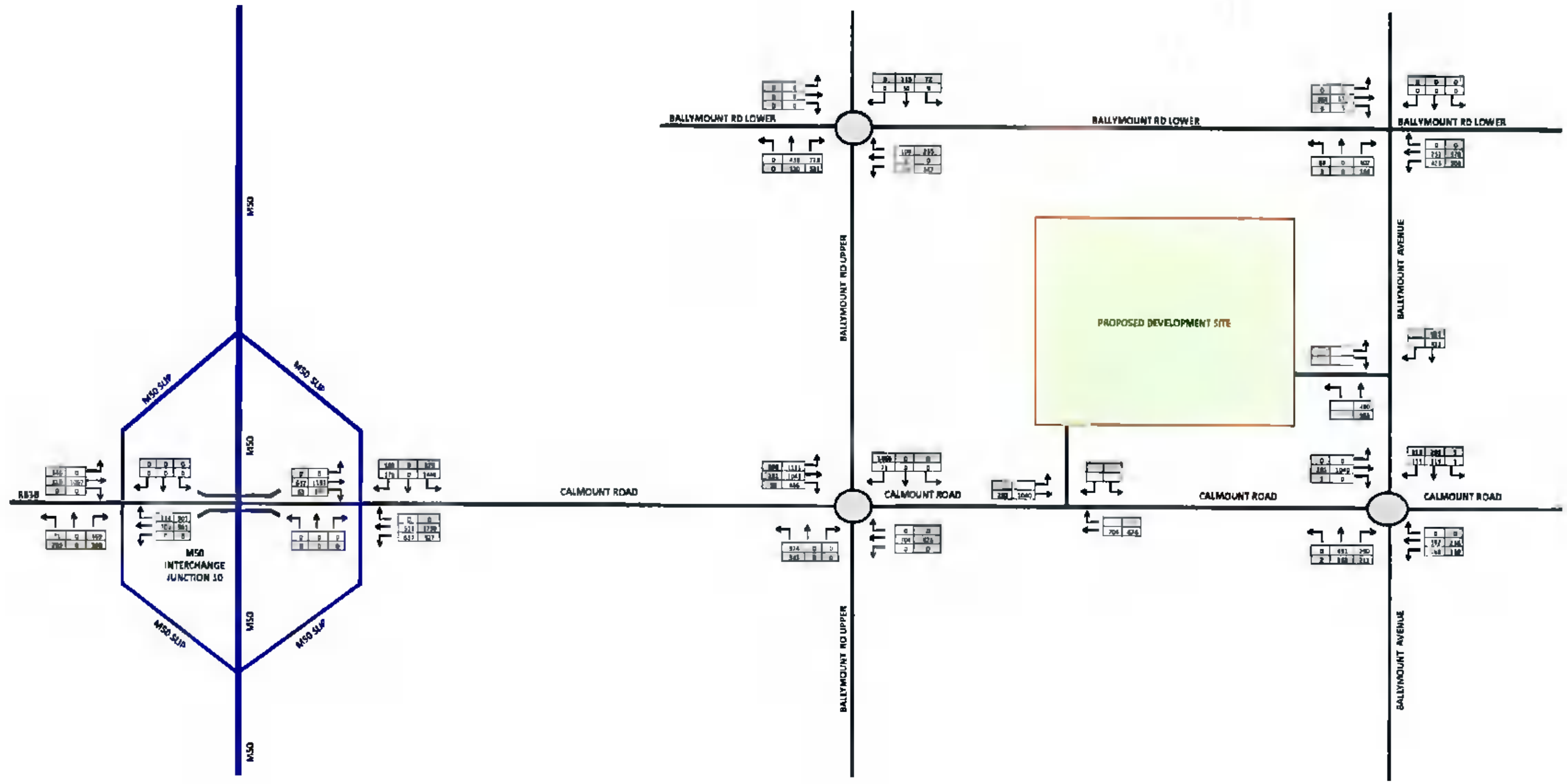
2016-2030 Medium Growth		
2027	1.0167	1.0836?

Drwn	Chd.	Date
VJ		08/02/2022

Ref: 210175\calcs\arcer\Traffic

Figure: 1

Rev



DBFL Consulting Engineers

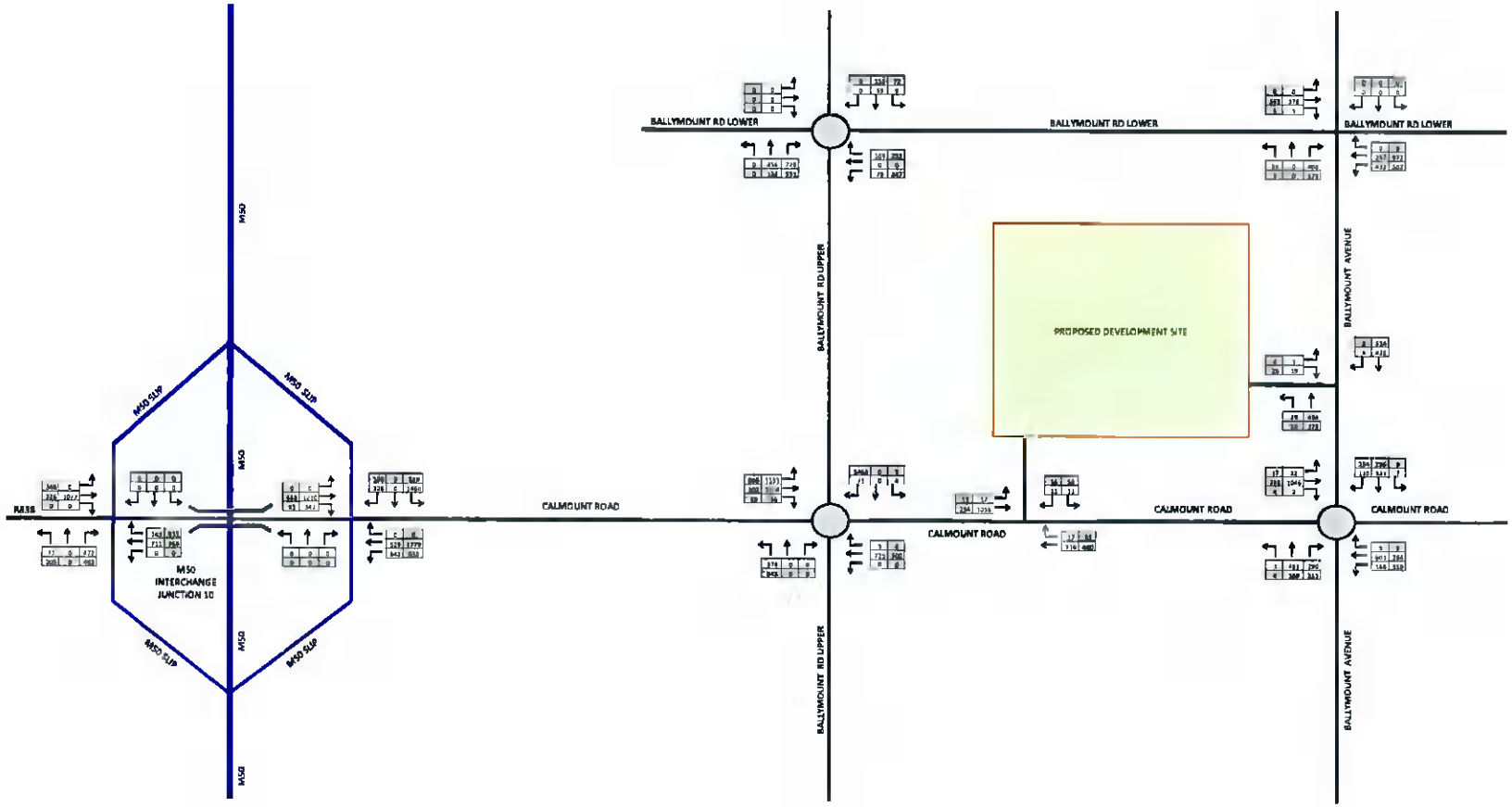
Project: Warehouse/Logistics Development at Calmount Road, Ballymount, Dublin 12
Ballymount, Dublin 12

Dwg. Title: Network Traffic Flows - Vehicles
2028 Do Minimum

Key: AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

Ref: p210175\calcs\excel\Traffic

Figure: 1



BBFL Consulting Engineers

Dublin Office:

Waterford Office:

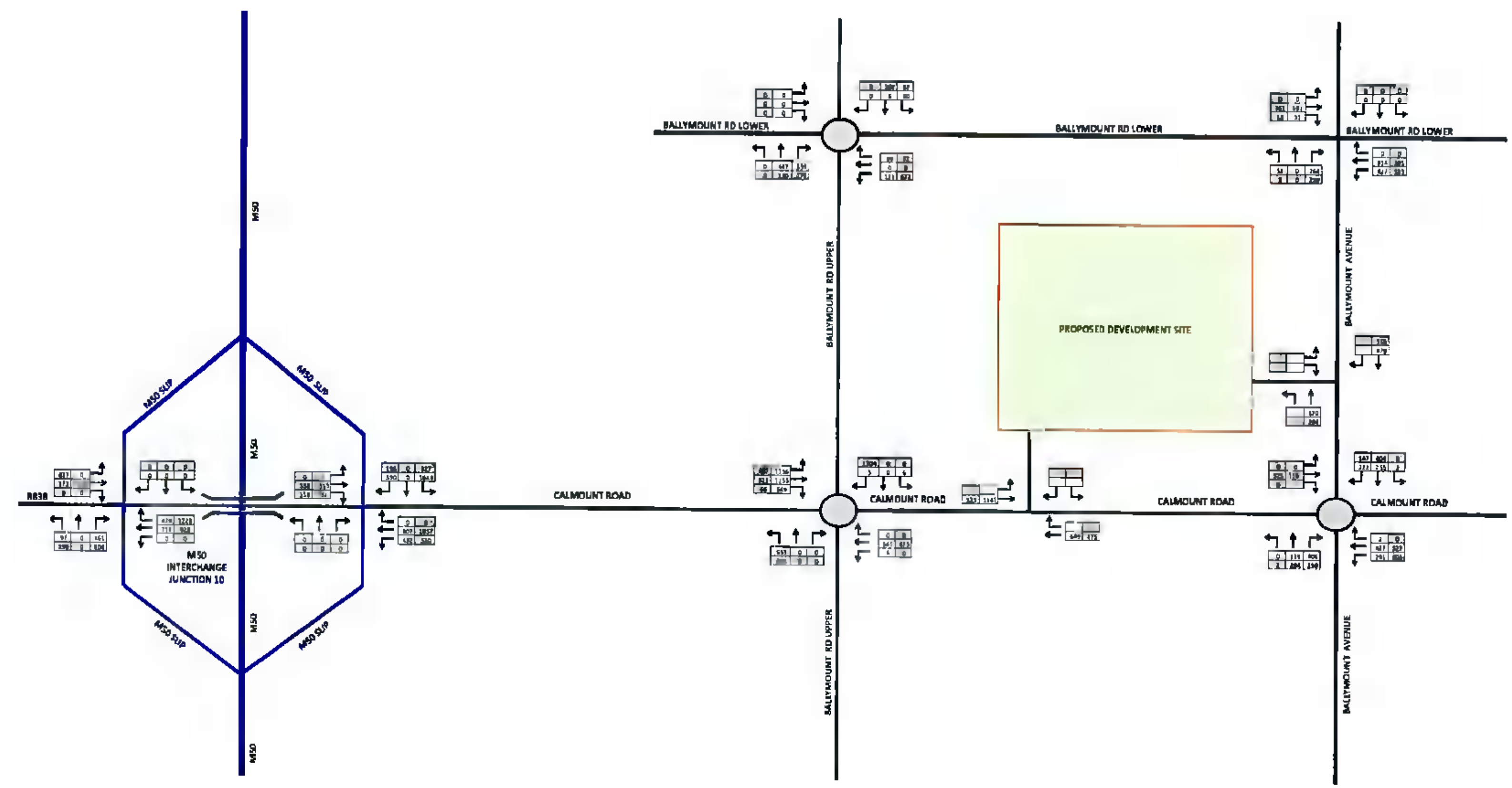
Project:
Warehouse/Logistics Development at Calmount Road, Ballymount, Dublin 12
Ballymount, Dublin 12

Dwg. Title:
Network Traffic Flows - Vehicles
2028 Do Something

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

2016-2030 Medium Growth		
2017	1.0061	1.14687

Drwn: VJ
Chd:
Date:
Ref:
Rev: 1
Rev:



DBFL Consulting Engineers

Project: Warehouse/Logistics Development at Calmount Road, Ballymount, Dublin 12
Ballymount, Dublin 12

Dwg. Title: Network Traffic Flows - Vehicles
2043 Do Minimum

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

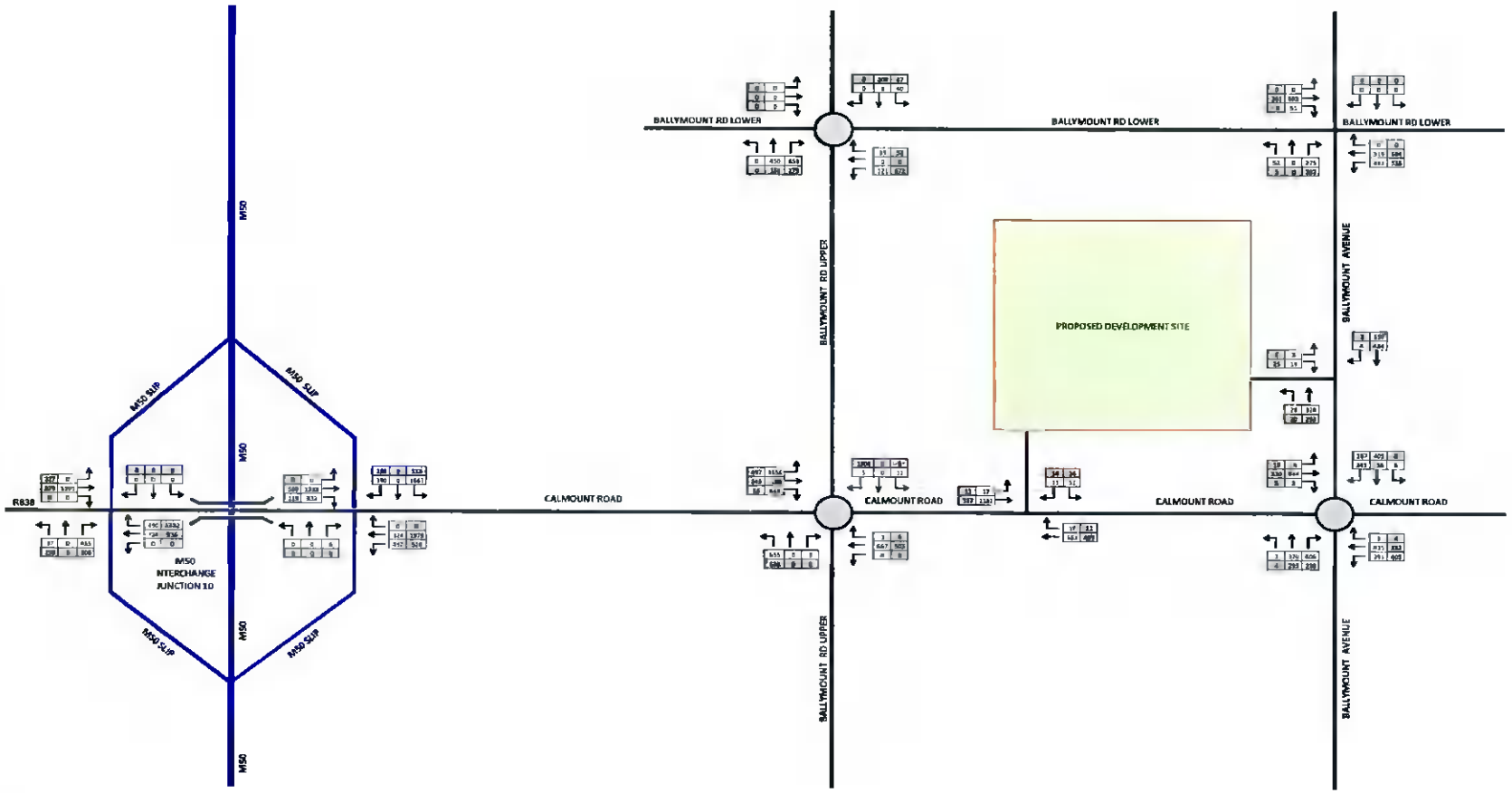
2016-2030 Medium Growth		
2043	1.0044	1.3224

Drwn: VI

Date: 08/02/2024

Ref: p210175\calcs\paced\Traffic

Figure: 1



DBFL Consulting Engineers

Dublin Office

Waterford Office:

Project:
Warehouse/Logistics Development at Calmount Road. Ballymount, Dublin 12
Ballymount, Dublin 12

Dwg. Title:
Network Traffic Flows - Vehicles
2043 Do Something

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

2016-2050 Medium Growth		
2043	1.3044	1.30709

Dwn. | Chd | Date: [redacted] 2018

Ref: p210175\cases\excel\Traffic

Figure: 1

Rev

Appendix B: TRICS Output Data

Calculation Reference: AUDIT-638801-220216-0242

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
TOTAL VEHICLES

Selected regions and areas:

04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	3 days
	SF	SUFFOLK	2 days
05	**EAST MIDLANDS**		
	DS	DERBYSHIRE	1 days
	LE	LEICESTERSHIRE	1 days
	NR	NORTHAMPTONSHIRE	1 days
06	**WEST MIDLANDS**		
	WK	WARWICKSHIRE	1 days
	WM	WEST MIDLANDS	1 days
	WO	WORCESTERSHIRE	3 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	2 days
	WY	WEST YORKSHIRE	2 days
08	**NORTH WEST**		
	CH	CHESHIRE	1 days
	GM	GREATER MANCHESTER	3 days
	LC	LANCASHIRE	1 days
	MS	MERSEYSIDE	2 days
09	**NORTH**		
	CB	CUMBRIA	1 days
	DH	DURHAM	1 days
	TV	TEES VALLEY	2 days
	TW	TYNE & WEAR	2 days
10	**WALES**		
	BG	BRIDGEND	1 days
	CO	CONWY	1 days
	MT	MERTHYR TYDFIL	1 days
	PS	POWYS	1 days
	SW	SWANSEA	2 days
11	**SCOTLAND**		
	DU	DUNDEE CITY	1 days
	EB	CITY OF EDINBURGH	1 days
	SR	STIRLING	1 days
12	**CONNAUGHT**		
	CS	SLIGO	1 days
	RO	ROSCOMMON	1 days
13	**MUNSTER**		
	CR	CORK	1 days
14	**LEINSTER**		
	LU	LOUTH	1 days
15	**GREATER DUBLIN**		
	DL	DUBLIN	4 days
16	**ULSTER (REPUBLIC OF IRELAND)**		
	MG	MONAGHAN	2 days
17	**ULSTER (NORTHERN IRELAND)**		
	AN	ANTRIM	2 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	178 to 22657 (units: sqm)
Range Selected by User:	178 to 175000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 19/05/21

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	8 days
Tuesday	16 days
Wednesday	10 days
Thursday	11 days
Friday	8 days

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

Selected survey types:

Manual count	53 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	10
Edge of Town Centre	18
Suburban Area (PPS6 Out of Centre)	6
Edge of Town	14
Neighbourhood Centre (PPS6 Local Centre)	5

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

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	10
Development Zone	4
Residential Zone	6
Built-Up Zone	15
Village	1
Out of Town	1
High Street	3
No Sub Category	9

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	52 days
E(c)	1 days

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

Filter by Site Operations Breakdown:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	6 days
5,001 to 10,000	11 days
10,001 to 15,000	7 days
15,001 to 20,000	8 days
20,001 to 25,000	3 days
25,001 to 50,000	15 days
50,001 to 100,000	2 days

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

Population within 5 miles:

5,001 to 25,000	5 days
25,001 to 50,000	5 days
50,001 to 75,000	4 days
75,001 to 100,000	4 days
100,001 to 125,000	4 days
125,001 to 250,000	14 days
250,001 to 500,000	10 days
500,001 or More	7 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	27 days
1.1 to 1.5	22 days
1.6 to 2.0	3 days

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

Travel Plan:

Yes	3 days
No	50 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	53 days

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

LIST OF SITES relevant to selection parameters

1 **AN-02-A-05** **OFFICES** **ANTRIM**
LISBURN ROAD
BELFAST
BALMORAL
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area: 270 sqm
Survey date: TUESDAY *11/10/16* *Survey Type: MANUAL*

2 **AN-02-A-06** **SPORTS ADMINISTRATION** **ANTRIM**
UPPER MALONE ROAD
BELFAST

Edge of Town
Residential Zone
Total Gross floor area: 2217 sqm
Survey date: TUESDAY *20/11/18* *Survey Type: MANUAL*

3 **BG-02-A-01** **HAULAGE COMPANY** **BRIDGEND**
KENT ROAD
BRIDGEND

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 300 sqm
Survey date: THURSDAY *06/05/21* *Survey Type: MANUAL*

4 **CA-02-A-05** **OFFICES** **CAMBRIDGESHIRE**
NEW ROAD
PETERBOROUGH

Town Centre
Built-Up Zone
Total Gross floor area: 8793 sqm
Survey date: TUESDAY *16/12/14* *Survey Type: MANUAL*

5 **CA-02-A-06** **OFFICES** **CAMBRIDGESHIRE**
LYNCH WOOD
PETERBOROUGH

Edge of Town
Commercial Zone
Total Gross floor area: 4040 sqm
Survey date: WEDNESDAY *19/10/16* *Survey Type: MANUAL*

6 **CB-02-A-02** **OFFICE** **CUMBRIA**
PORT ROAD
CARLISLE

Edge of Town Centre
Industrial Zone
Total Gross floor area: 925 sqm
Survey date: FRIDAY *24/06/16* *Survey Type: MANUAL*

7 **CH-02-A-04** **OFFICES** **CHESHIRE**
WINTERTON WAY
MACCLESFIELD
LYME GREEN BUSINESS PK
Edge of Town
Commercial Zone
Total Gross floor area: 3000 sqm
Survey date: TUESDAY *04/05/21* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 **CO-02-A-01** **GOVERNMENT OFFICES** **CONWY**
NARROW LANE
LLANDUDNO JUNCTION

Edge of Town
Commercial Zone
Total Gross floor area: 6186 sqm
Survey date: WEDNESDAY *28/03/18* *Survey Type: MANUAL*

9 **CR-02-A-01** **STATISTICS OFFICES** **CORK**
MAHON CRESCENT
CORK

Edge of Town
No Sub Category
Total Gross floor area: 8600 sqm
Survey date: MONDAY *23/06/14* *Survey Type: MANUAL*

10 **CS-02-A-02** **COUNCIL OFFICE** **SLIGO**
QUAY STREET
SLIGO

Town Centre
Built-Up Zone
Total Gross floor area: 2750 sqm
Survey date: FRIDAY *01/11/13* *Survey Type: MANUAL*

11 **DH-02-A-03** **ENGINEERING COMPANY** **DURHAM**
ALDERMAN BEST WAY
DARLINGTON

Edge of Town
No Sub Category
Total Gross floor area: 3530 sqm
Survey date: THURSDAY *18/10/18* *Survey Type: MANUAL*

12 **DL-02-A-05** **OFFICE** **DUBLIN**
GORT MUIRE
DUBLIN
BALLINTEER
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 12474 sqm
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

13 **DL-02-A-06** **OFFICE** **DUBLIN**
CLONSKEAGH ROAD
DUBLIN
CLONSKEAGH
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 557 sqm
Survey date: THURSDAY *12/09/13* *Survey Type: MANUAL*

14 **DL-02-A-07** **OFFICES** **DUBLIN**
BELGARD SQUARE EAST
DUBLIN
TALLAGHT
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 3230 sqm
Survey date: WEDNESDAY *20/06/18* *Survey Type: MANUAL*

15 **DL-02-A-08** **OFFICES** **DUBLIN**
NORTHWOOD AVENUE
DUBLIN
NORTHWOOD
Edge of Town
Development Zone
Total Gross floor area: 3800 sqm
Survey date: WEDNESDAY *19/05/21* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

16 **DS-02-A-01** **REAL ESTATE DEVELOPERS** **DERBYSHIRE**
PRIME PARK WAY
DERBY

Edge of Town Centre
No Sub Category
Total Gross floor area: 594 sqm
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

17 **DU-02-A-01** **OFFICES** **DUNDEE CITY**
GREENMARKET
DUNDEE

Edge of Town Centre
Development Zone
Total Gross floor area: 3200 sqm
Survey date: THURSDAY *27/04/17* *Survey Type: MANUAL*

18 **EB-02-A-06** **REGUS OFFICES** **CITY OF EDINBURGH**
ST ANDREW SQUARE
EDINBURGH

Town Centre
Built-Up Zone
Total Gross floor area: 4500 sqm
Survey date: WEDNESDAY *16/03/16* *Survey Type: MANUAL*

19 **GM-02-A-08** **REGUS** **GREATER MANCHESTER**
FOUNTAIN STREET
MANCHESTER

Town Centre
Built-Up Zone
Total Gross floor area: 3960 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

20 **GM-02-A-09** **LEASED OFFICES** **GREATER MANCHESTER**
NEW MOUNT STREET
MANCHESTER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2500 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

21 **GM-02-A-10** **ACCOUNTANTS** **GREATER MANCHESTER**
CHORLEY NEW ROAD
BOLTON
HEATON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 500 sqm
Survey date: MONDAY *19/04/21* *Survey Type: MANUAL*

22 **LC-02-A-09** **OFFICES** **LANCASHIRE**
FURTHERGATE
BLACKBURN

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 2600 sqm
Survey date: TUESDAY *04/06/13* *Survey Type: MANUAL*

23 **LE-02-A-04** **COUNCIL OFFICES** **LEICESTERSHIRE**
BURTON STREET
MELTON MOWBRAY

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 3981 sqm
Survey date: WEDNESDAY *30/11/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

24 **LU-02-A-01** **BETTING HEADQUARTERS** **LOUTH**
INNER RELIEF ROAD
DUNDALK

Edge of Town
Commercial Zone
Total Gross floor area: 2052 sqm
Survey date: MONDAY *09/11/20* *Survey Type: MANUAL*

25 **MG-02-A-01** **MOTOR TAX OFFICE** **MONAGHAN**
MARKET STREET
MONAGHAN

Town Centre
High Street
Total Gross floor area: 400 sqm
Survey date: WEDNESDAY *11/09/13* *Survey Type: MANUAL*

26 **MG-02-A-02** **OFFICES** **MONAGHAN**
ARMAGH ROAD
MONAGHAN

Edge of Town
Out of Town
Total Gross floor area: 3205 sqm
Survey date: WEDNESDAY *16/11/16* *Survey Type: MANUAL*

27 **MS-02-A-02** **SCIENCE PARK OFFICES** **MERSEYSIDE**
MOUNT PLEASANT
LIVERPOOL

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 11250 sqm
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

28 **MS-02-A-03** **HOMES DEVELOPER** **MERSEYSIDE**
ALDERMAN ROAD
LIVERPOOL

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 1200 sqm
Survey date: TUESDAY *20/04/21* *Survey Type: MANUAL*

29 **MT-02-A-02** **COUNCIL OFFICES** **MERTHYR TYDFIL**
CASTLE STREET
MERTHYR TYDFIL

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 5250 sqm
Survey date: THURSDAY *17/10/13* *Survey Type: MANUAL*

30 **NF-02-A-02** **FINANCIAL PLANNERS** **NORFOLK**
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 894 sqm
Survey date: MONDAY *11/09/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

31 **NF-02-A-03** **OFFICES** **NORFOLK**
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 5500 sqm
Survey date: TUESDAY *12/09/17* *Survey Type: MANUAL*

32 **NF-02-A-04** **BUILDING CONSULTANT** **NORFOLK**
WHITING ROAD
NORWICH

Edge of Town
Commercial Zone
Total Gross floor area: 500 sqm
Survey date: WEDNESDAY *13/11/19* *Survey Type: MANUAL*

33 **NR-02-A-01** **OFFICES** **NORTHAMPTONSHIRE**
THE LAKES
NORTHAMPTON

Edge of Town
Commercial Zone
Total Gross floor area: 9225 sqm
Survey date: THURSDAY *22/10/20* *Survey Type: MANUAL*

34 **NY-02-A-01** **SOLICITORS** **NORTH YORKSHIRE**
NORTH PARK ROAD
HARROGATE

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 178 sqm
Survey date: THURSDAY *04/10/18* *Survey Type: MANUAL*

35 **NY-02-A-02** **DISTRICT COUNCIL OFFICES** **NORTH YORKSHIRE**
STATION ROAD
RICHMOND

Edge of Town Centre
No Sub Category
Total Gross floor area: 1930 sqm
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

36 **PS-02-A-01** **COUNCIL OFFICES** **POWYS**
SEVERN ROAD
WELSHPOOL

Edge of Town Centre
No Sub Category
Total Gross floor area: 3920 sqm
Survey date: TUESDAY *12/05/15* *Survey Type: MANUAL*

37 **RO-02-A-02** **GOVERNMENT OFFICES** **ROSCOMMON**
GOLF LINKS ROAD
ROSCOMMON
ARDSALLAGH BEG
Edge of Town Centre
Residential Zone
Total Gross floor area: 7200 sqm
Survey date: TUESDAY *23/09/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

38 **SF-02-A-02** **OFFICES** **SUFFOLK**
BATH STREET
IPSWICH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 6505 sqm
Survey date: FRIDAY *19/07/13* *Survey Type: MANUAL*

39 **SF-02-A-03** **OFFICES** **SUFFOLK**
WHITE HOUSE ROAD
IPSWICH

Edge of Town
Industrial Zone
Total Gross floor area: 2800 sqm
Survey date: THURSDAY *24/09/20* *Survey Type: MANUAL*

40 **SR-02-A-02** **SERVICED OFFICES** **STIRLING**
WELLGREEN ROAD
STIRLING

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2150 sqm
Survey date: TUESDAY *08/09/20* *Survey Type: MANUAL*

41 **SW-02-A-01** **OFFICES** **SWANSEA**
LANGDON ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Gross floor area: 6630 sqm
Survey date: FRIDAY *25/10/13* *Survey Type: MANUAL*

42 **SW-02-A-02** **OFFICE** **SWANSEA**
KINGS ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Gross floor area: 2225 sqm
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

43 **TV-02-A-04** **COUNCIL OFFICES** **TEES VALLEY**
CORPORATION ROAD
MIDDLESBROUGH

Town Centre
Commercial Zone
Total Gross floor area: 3950 sqm
Survey date: TUESDAY *08/10/13* *Survey Type: MANUAL*

44 **TV-02-A-05** **CHEMICAL COMPANY** **TEES VALLEY**
HANZARD DRIVE
NEAR BILLINGHAM
WYNYARD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 5110 sqm
Survey date: FRIDAY *04/09/20* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

45 **TW-02-A-07** **OFFICES** **TYNE & WEAR**
MULGRAVE TERRACE
GATESHEAD

Town Centre
Built-Up Zone
Total Gross floor area: 2090 sqm
Survey date: MONDAY *13/06/16* *Survey Type: MANUAL*

46 **TW-02-A-08** **HOUSING ASSOCIATION OFFICE** **TYNE & WEAR**
BENTON PARK ROAD
NEWCASTLE UPON TYNE
LONGBENTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4800 sqm
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

47 **WK-02-A-01** **OFFICES** **WARWICKSHIRE**
WARWICK ROAD
COVENTRY

Town Centre
Built-Up Zone
Total Gross floor area: 960 sqm
Survey date: THURSDAY *17/10/13* *Survey Type: MANUAL*

48 **WM-02-A-04** **OFFICE** **WEST MIDLANDS**
BOURNVILLE LANE
BIRMINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1800 sqm
Survey date: TUESDAY *10/11/15* *Survey Type: MANUAL*

49 **WO-02-A-01** **OFFICES** **WORCESTERSHIRE**
ST MARY'S STREET
WORCESTER

Town Centre
Built-Up Zone
Total Gross floor area: 22657 sqm
Survey date: FRIDAY *23/05/14* *Survey Type: MANUAL*

50 **WO-02-A-02** **OFFICE** **WORCESTERSHIRE**
MOOR STREET
WORCESTER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2000 sqm
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

51 **WO-02-A-03** **IT SERVICES** **WORCESTERSHIRE**
STOURPORT ROAD
KIDDERMINSTER

Edge of Town
Industrial Zone
Total Gross floor area: 5945 sqm
Survey date: TUESDAY *13/10/20* *Survey Type: MANUAL*

52 **WY-02-A-04** **INSURANCE COMPANY** **WEST YORKSHIRE**
BRADFORD ROAD
CLECKHEATON

Town Centre
High Street
Total Gross floor area: 442 sqm
Survey date: FRIDAY *23/09/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

53 WY-02-A-05 OFFICES WEST YORKSHIRE
PIONEER WAY
CASTLEFORD
WHITWOOD
Edge of Town
No Sub Category
Total Gross floor area: 1230 sqm
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	50	3999	0.089	50	3999	0.012	50	3999	0.101
07:30 - 08:00	50	3999	0.344	50	3999	0.059	50	3999	0.403
08:00 - 08:30	52	3857	0.500	52	3857	0.065	52	3857	0.565
08:30 - 09:00	**53**	**3896**	**0.596**	53	3896	0.087	**53**	**3896**	**0.683**
09:00 - 09:30	53	3896	0.376	53	3896	0.077	53	3896	0.453
09:30 - 10:00	53	3896	0.230	53	3896	0.110	53	3896	0.340
10:00 - 10:30	53	3896	0.130	53	3896	0.092	53	3896	0.222
10:30 - 11:00	53	3896	0.115	53	3896	0.087	53	3896	0.202
11:00 - 11:30	53	3896	0.099	53	3896	0.092	53	3896	0.191
11:30 - 12:00	53	3896	0.108	53	3896	0.093	53	3896	0.201
12:00 - 12:30	53	3896	0.109	53	3896	0.157	53	3896	0.266
12:30 - 13:00	53	3896	0.141	53	3896	0.181	53	3896	0.322
13:00 - 13:30	53	3896	0.144	53	3896	0.166	53	3896	0.310
13:30 - 14:00	53	3896	0.161	53	3896	0.136	53	3896	0.297
14:00 - 14:30	53	3896	0.135	53	3896	0.100	53	3896	0.235
14:30 - 15:00	53	3896	0.087	53	3896	0.123	53	3896	0.210
15:00 - 15:30	53	3896	0.072	53	3896	0.113	53	3896	0.185
15:30 - 16:00	53	3896	0.058	53	3896	0.132	53	3896	0.190
16:00 - 16:30	53	3896	0.075	53	3896	0.287	53	3896	0.362
16:30 - 17:00	53	3896	0.081	53	3896	0.329	53	3896	0.410
17:00 - 17:30	53	3896	0.056	**53**	**3896**	**0.497**	53	3896	0.553
17:30 - 18:00	53	3896	0.041	53	3896	0.320	53	3896	0.361
18:00 - 18:30	50	4093	0.021	50	4093	0.243	50	4093	0.264
18:30 - 19:00	49	4168	0.017	49	4168	0.106	49	4168	0.123
19:00 - 19:30	1	2150	0.000	1	2150	0.000	**1**	2150	0.000
19:30 - 20:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:00 - 20:30	1	2150	0.000	**1**	2150	0.047	1	2150	0.047
20:30 - 21:00	**1**	2150	0.000	**1**	2150	0.000	1	2150	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.785			3.711			7.496

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

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

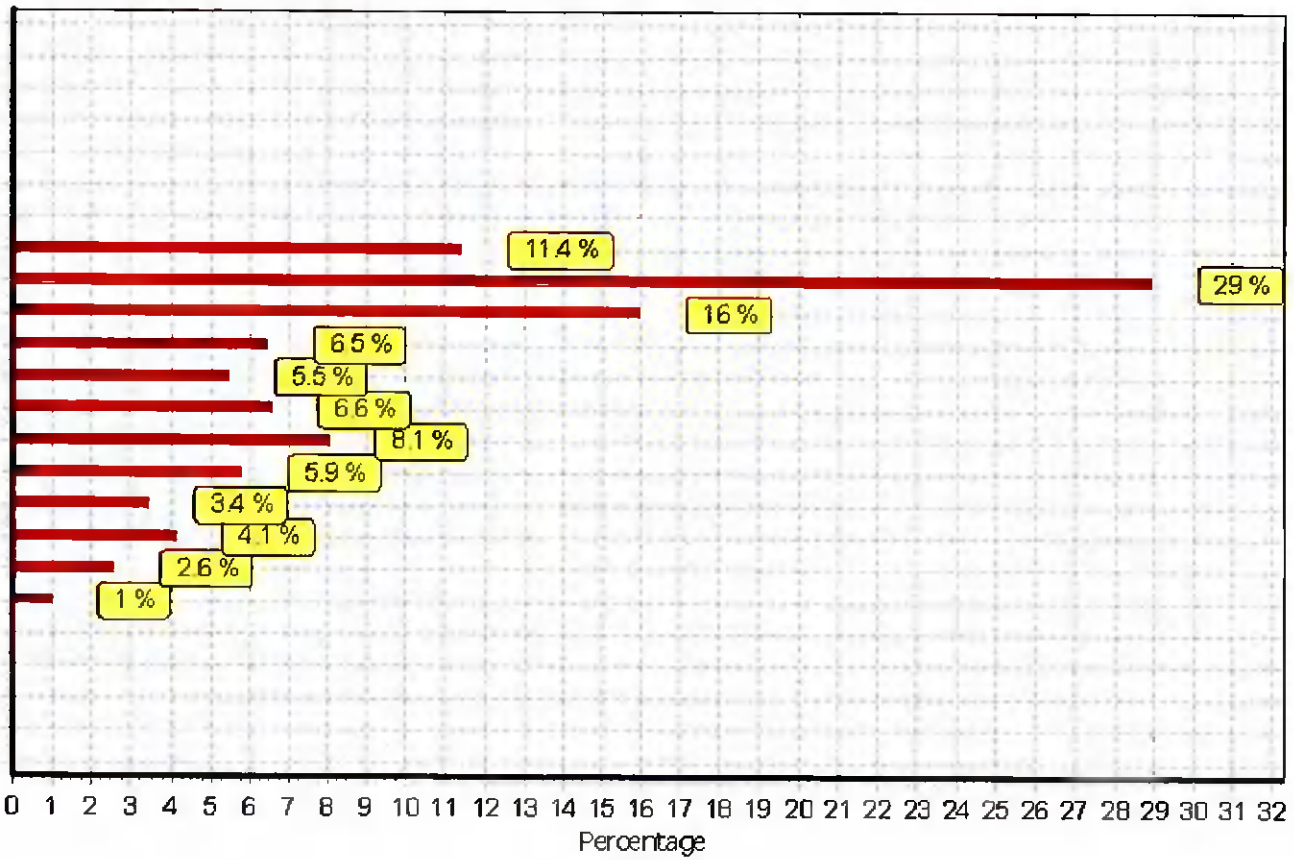
Parameter summary

Trip rate parameter range selected:	178 - 22657 (units: sqm)
Survey date date range:	01/01/13 - 19/05/21
Number of weekdays (Monday-Friday):	53
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

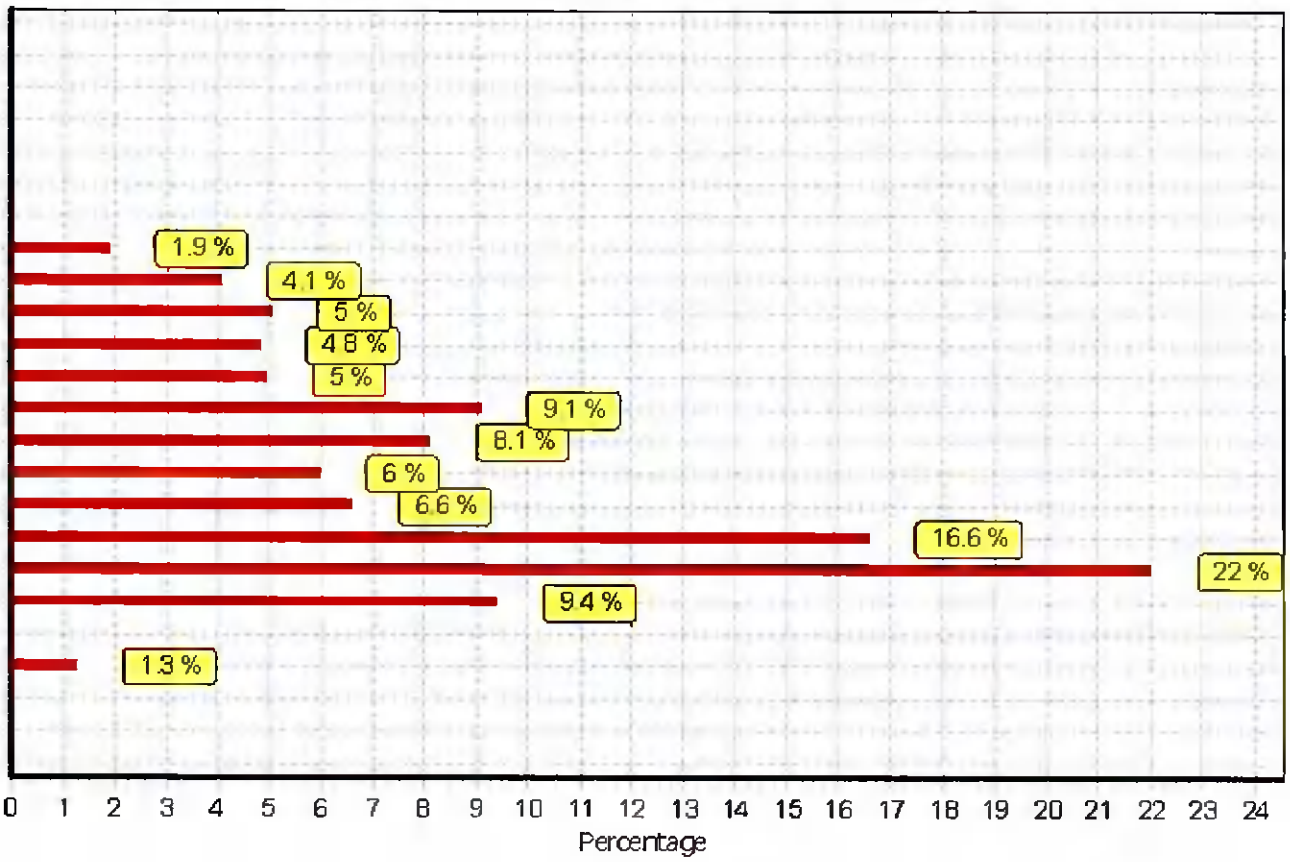
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.433	11.4
08:00-09:00	1.096	29.0
09:00-10:00	0.606	16.0
10:00-11:00	0.245	6.5
11:00-12:00	0.207	5.5
12:00-13:00	0.250	6.6
13:00-14:00	0.305	8.1
14:00-15:00	0.222	5.9
15:00-16:00	0.130	3.4
16:00-17:00	0.156	4.1
17:00-18:00	0.097	2.6
18:00-19:00	0.038	1.0
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		

TRIP RATE GRAPH - ARRIVALS 02 - EMPLOYMENT A - OFFICE TOTAL VEHICLES



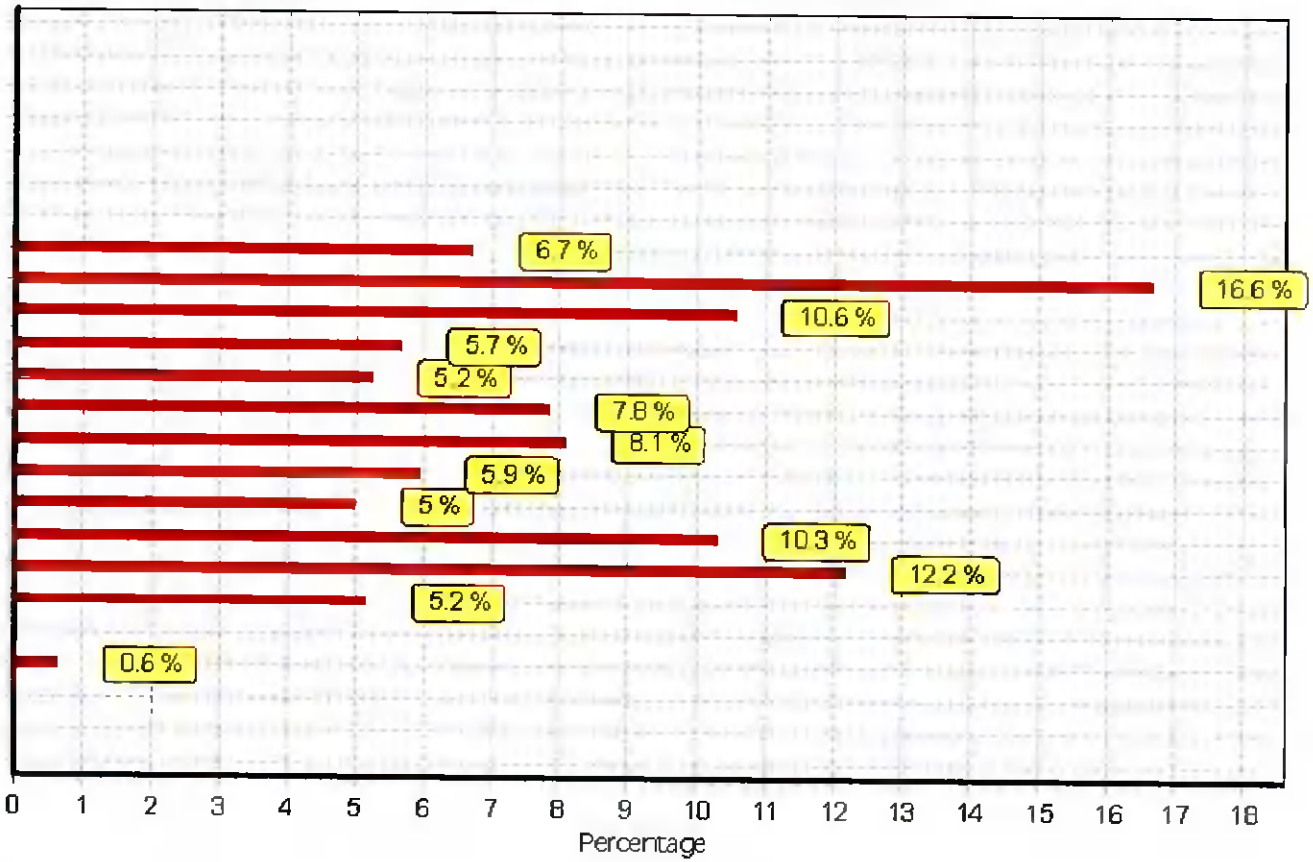
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.071	1.9
08:00-09:00	0.152	4.1
09:00-10:00	0.187	5.0
10:00-11:00	0.179	4.8
11:00-12:00	0.185	5.0
12:00-13:00	0.338	9.1
13:00-14:00	0.302	8.1
14:00-15:00	0.223	6.0
15:00-16:00	0.245	6.6
16:00-17:00	0.616	16.6
17:00-18:00	0.817	22.0
18:00-19:00	0.349	9.4
19:00-20:00		
20:00-21:00	0.047	1.3
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.504	6.7
08:00-09:00	1.248	16.6
09:00-10:00	0.793	10.6
10:00-11:00	0.424	5.7
11:00-12:00	0.392	5.2
12:00-13:00	0.588	7.8
13:00-14:00	0.607	8.1
14:00-15:00	0.445	5.9
15:00-16:00	0.375	5.0
16:00-17:00	0.772	10.3
17:00-18:00	0.914	12.2
18:00-19:00	0.387	5.2
19:00-20:00		
20:00-21:00	0.047	0.6
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

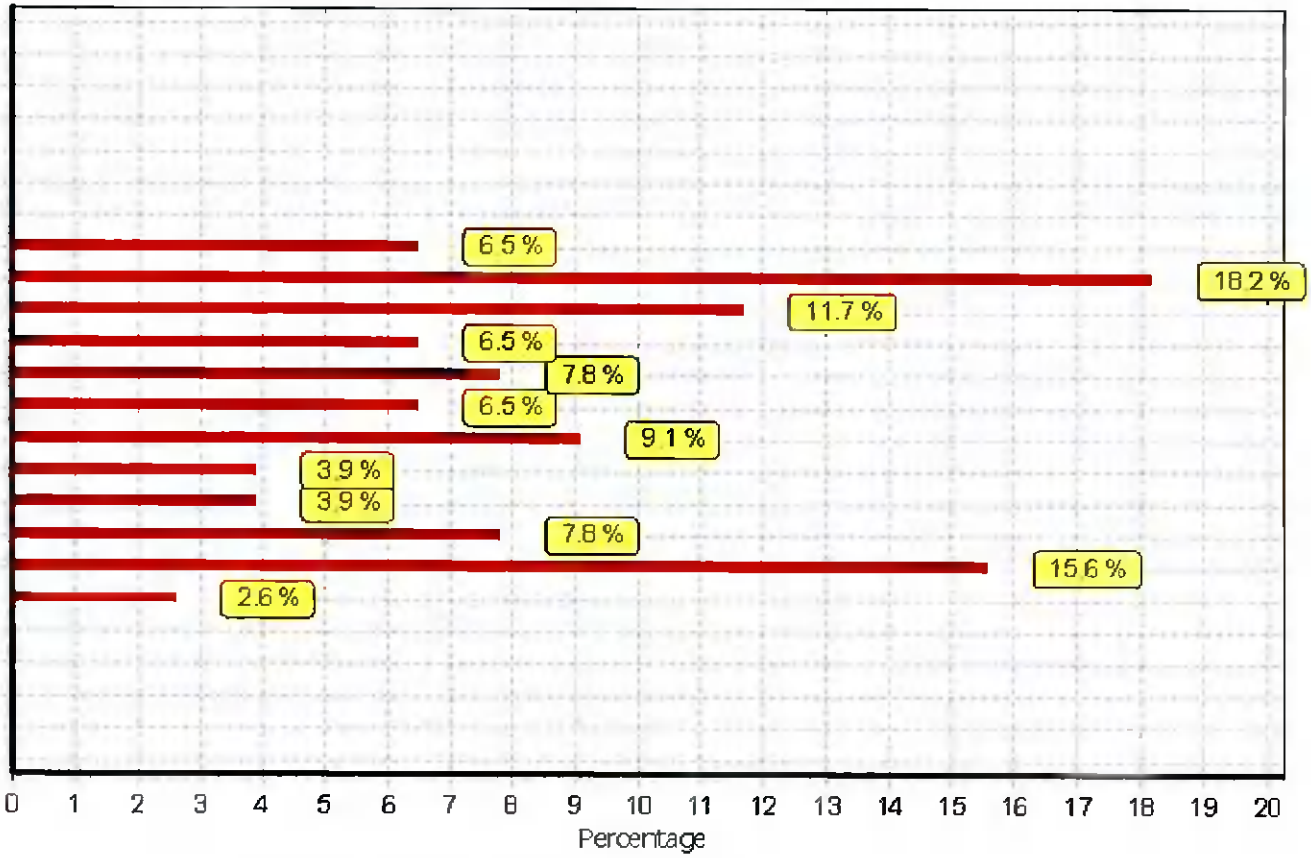
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	50	3999	0.001	50	3999	0.001	50	3999	0.002
07:30 - 08:00	50	3999	0.004	50	3999	0.004	50	3999	0.008
08:00 - 08:30	52	3857	0.005	52	3857	0.004	52	3857	0.009
08:30 - 09:00	53	3896	0.009	53	3896	0.008	53	3896	0.017
09:00 - 09:30	53	3896	0.004	53	3896	0.005	53	3896	0.009
09:30 - 10:00	53	3896	0.005	53	3896	0.006	53	3896	0.011
10:00 - 10:30	53	3896	0.002	53	3896	0.002	53	3896	0.004
10:30 - 11:00	53	3896	0.003	53	3896	0.003	53	3896	0.006
11:00 - 11:30	53	3896	0.003	53	3896	0.003	53	3896	0.006
11:30 - 12:00	53	3896	0.003	53	3896	0.003	53	3896	0.006
12:00 - 12:30	53	3896	0.002	53	3896	0.002	53	3896	0.004
12:30 - 13:00	53	3896	0.003	53	3896	0.002	53	3896	0.005
13:00 - 13:30	53	3896	0.003	53	3896	0.003	53	3896	0.006
13:30 - 14:00	53	3896	0.004	53	3896	0.004	53	3896	0.008
14:00 - 14:30	53	3896	0.002	53	3896	0.002	53	3896	0.004
14:30 - 15:00	53	3896	0.001	53	3896	0.002	53	3896	0.003
15:00 - 15:30	53	3896	0.001	53	3896	0.001	53	3896	0.002
15:30 - 16:00	53	3896	0.002	53	3896	0.002	53	3896	0.004
16:00 - 16:30	53	3896	0.003	53	3896	0.003	53	3896	0.006
16:30 - 17:00	53	3896	0.003	53	3896	0.002	53	3896	0.005
17:00 - 17:30	**53**	**3896**	**0.009**	**53**	**3896**	**0.009**	**53**	**3896**	**0.018**
17:30 - 18:00	53	3896	0.003	53	3896	0.004	53	3896	0.007
18:00 - 18:30	50	4093	0.001	50	4093	0.002	50	4093	0.003
18:30 - 19:00	49	4168	0.001	49	4168	0.000	49	4168	0.001
19:00 - 19:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
19:30 - 20:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:00 - 20:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:30 - 21:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.077			0.077			0.154

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 GRAPH - ARRIVALS 02 - EMPLOYMENT A - OFFICE TAXIS

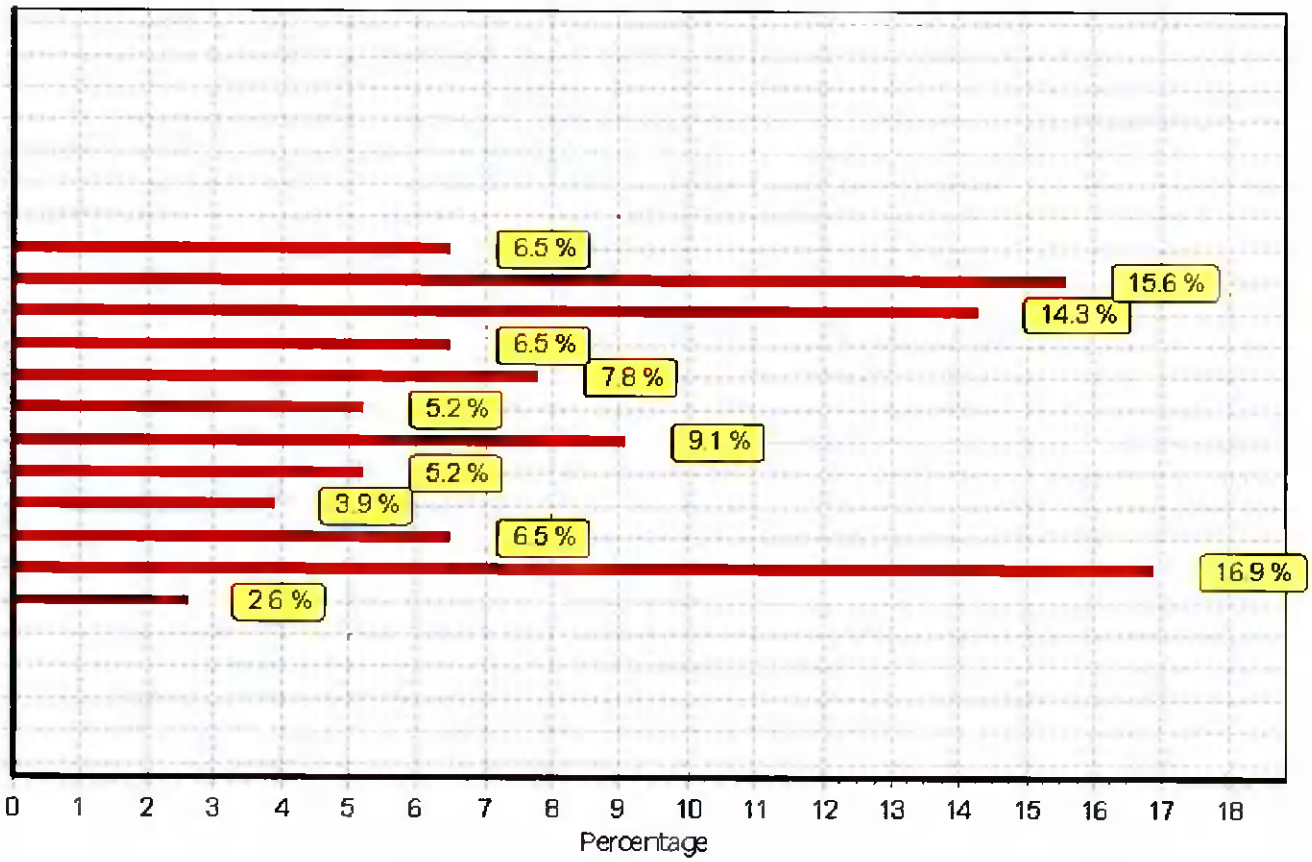
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.005	6.5
08:00-09:00	0.014	18.2
09:00-10:00	0.009	11.7
10:00-11:00	0.005	6.5
11:00-12:00	0.006	7.8
12:00-13:00	0.005	6.5
13:00-14:00	0.007	9.1
14:00-15:00	0.003	3.9
15:00-16:00	0.003	3.9
16:00-17:00	0.006	7.8
17:00-18:00	0.012	15.6
18:00-19:00	0.002	2.6
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

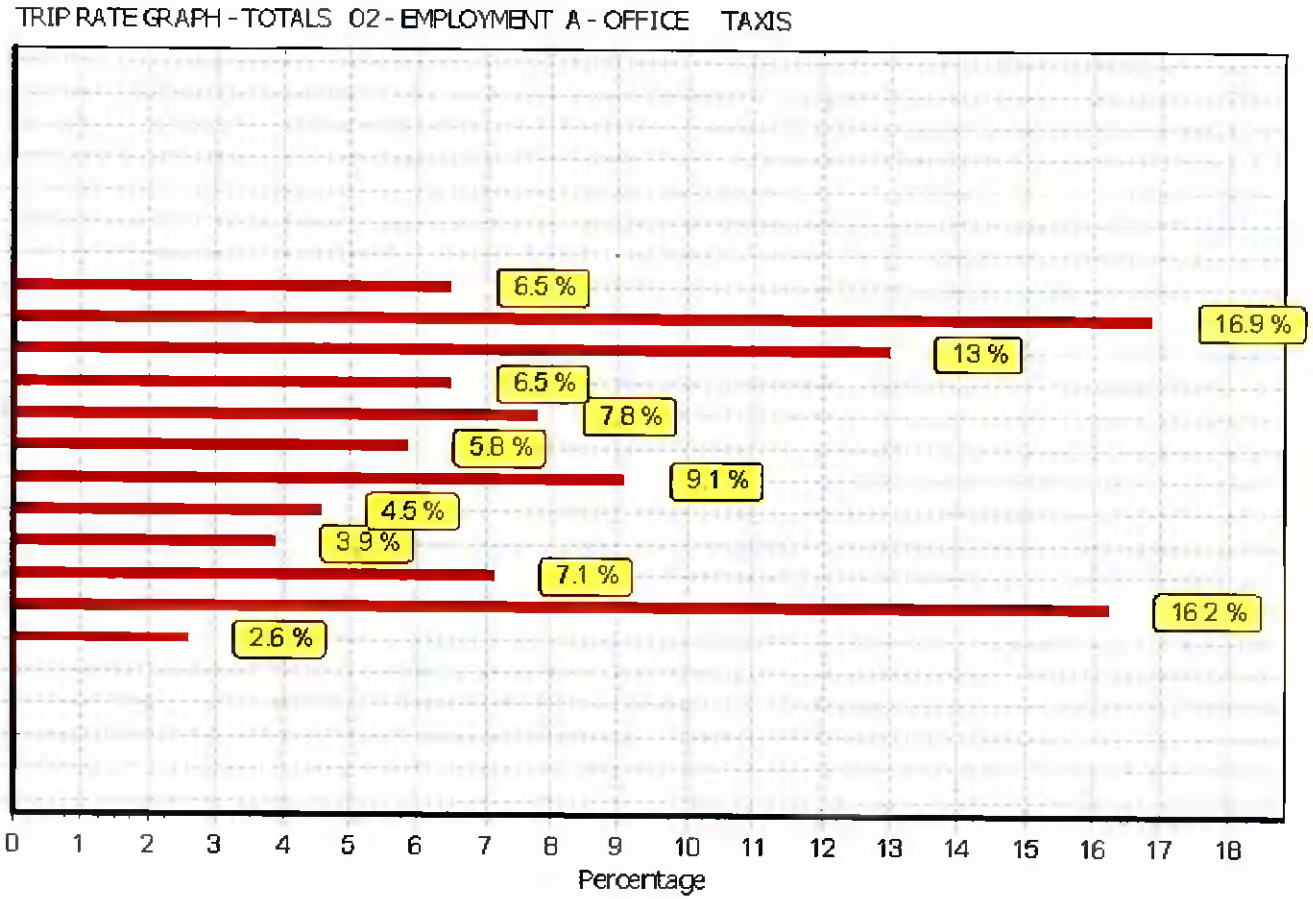
TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT A - OFFICE TAXIS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.005	6.5
08:00-09:00	0.012	15.6
09:00-10:00	0.011	14.3
10:00-11:00	0.005	6.5
11:00-12:00	0.006	7.8
12:00-13:00	0.004	5.2
13:00-14:00	0.007	9.1
14:00-15:00	0.004	5.2
15:00-16:00	0.003	3.9
16:00-17:00	0.005	6.5
17:00-18:00	0.013	16.9
18:00-19:00	0.002	2.6
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.010	6.5
08:00-09:00	0.026	16.9
09:00-10:00	0.020	13.0
10:00-11:00	0.010	6.5
11:00-12:00	0.012	7.8
12:00-13:00	0.009	5.8
13:00-14:00	0.014	9.1
14:00-15:00	0.007	4.5
15:00-16:00	0.006	3.9
16:00-17:00	0.011	7.1
17:00-18:00	0.025	16.2
18:00-19:00	0.004	2.6
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

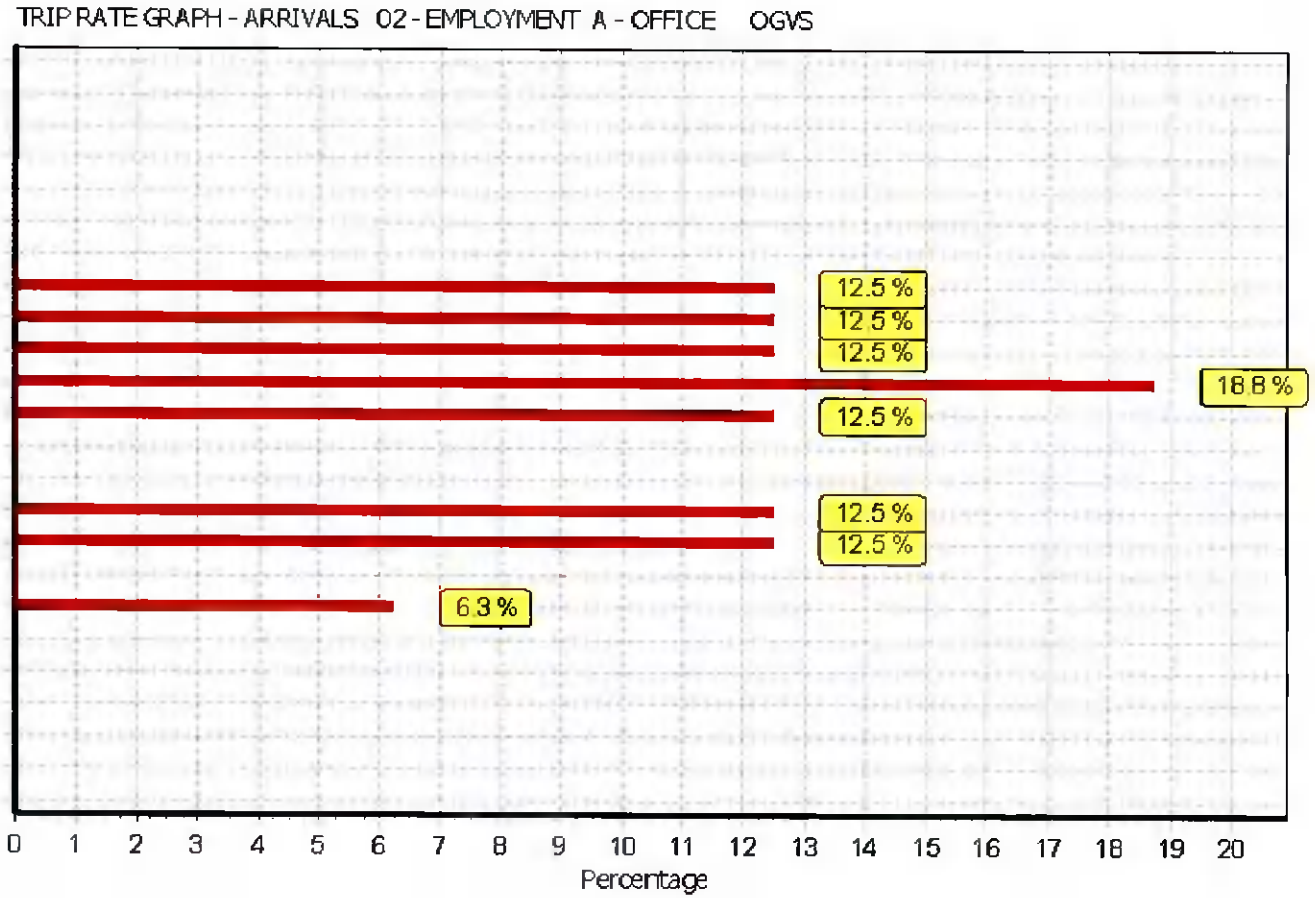
TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	50	3999	0.001	50	3999	0.000	50	3999	0.001
07:30 - 08:00	50	3999	0.001	50	3999	0.001	50	3999	0.002
08:00 - 08:30	52	3857	0.001	52	3857	0.001	52	3857	0.002
08:30 - 09:00	53	3896	0.001	53	3896	0.001	53	3896	0.002
09:00 - 09:30	53	3896	0.000	53	3896	0.001	53	3896	0.001
09:30 - 10:00	**53**	**3896**	**0.002**	53	3896	0.001	**53**	**3896**	**0.003**
10:00 - 10:30	53	3896	0.002	53	3896	0.001	53	3896	0.003
10:30 - 11:00	53	3896	0.001	**53**	**3896**	**0.002**	53	3896	0.003
11:00 - 11:30	53	3896	0.001	53	3896	0.001	53	3896	0.002
11:30 - 12:00	53	3896	0.001	53	3896	0.001	53	3896	0.002
12:00 - 12:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
12:30 - 13:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
13:00 - 13:30	53	3896	0.000	53	3896	0.001	53	3896	0.001
13:30 - 14:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
14:00 - 14:30	53	3896	0.001	53	3896	0.001	53	3896	0.002
14:30 - 15:00	53	3896	0.001	53	3896	0.000	53	3896	0.001
15:00 - 15:30	53	3896	0.001	53	3896	0.000	53	3896	0.001
15:30 - 16:00	53	3896	0.001	53	3896	0.000	53	3896	0.001
16:00 - 16:30	53	3896	0.000	53	3896	0.001	53	3896	0.001
16:30 - 17:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
17:00 - 17:30	53	3896	0.001	53	3896	0.001	53	3896	0.002
17:30 - 18:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
18:00 - 18:30	50	4093	0.000	50	4093	0.000	50	4093	0.000
18:30 - 19:00	49	4168	0.000	49	4168	0.000	49	4168	0.000
19:00 - 19:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
19:30 - 20:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:00 - 20:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:30 - 21:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.016			0.014			0.030

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.*

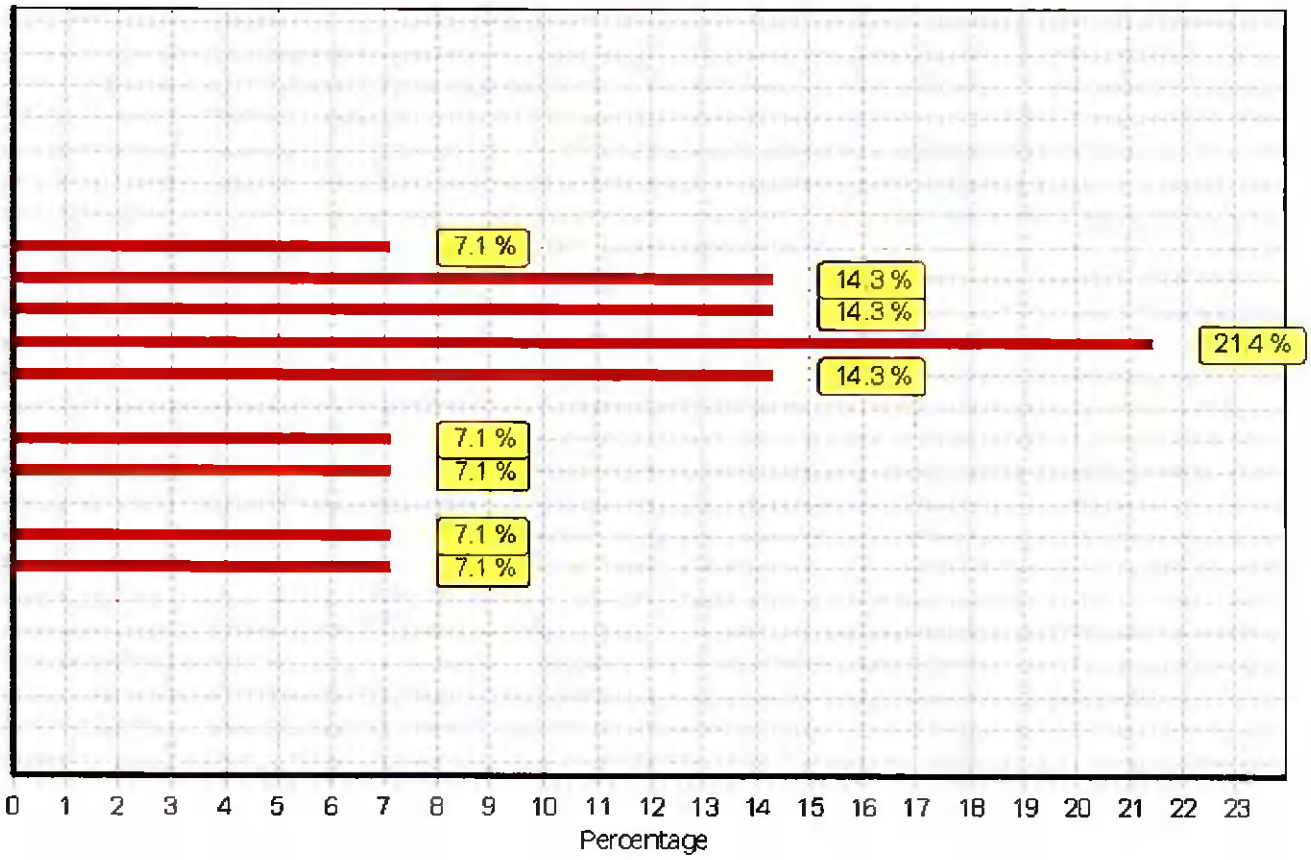
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.002	12.5
08:00-09:00	0.002	12.5
09:00-10:00	0.002	12.5
10:00-11:00	0.003	18.8
11:00-12:00	0.002	12.5
12:00-13:00		
13:00-14:00		
14:00-15:00	0.002	12.5
15:00-16:00	0.002	12.5
16:00-17:00		
17:00-18:00	0.001	6.3
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



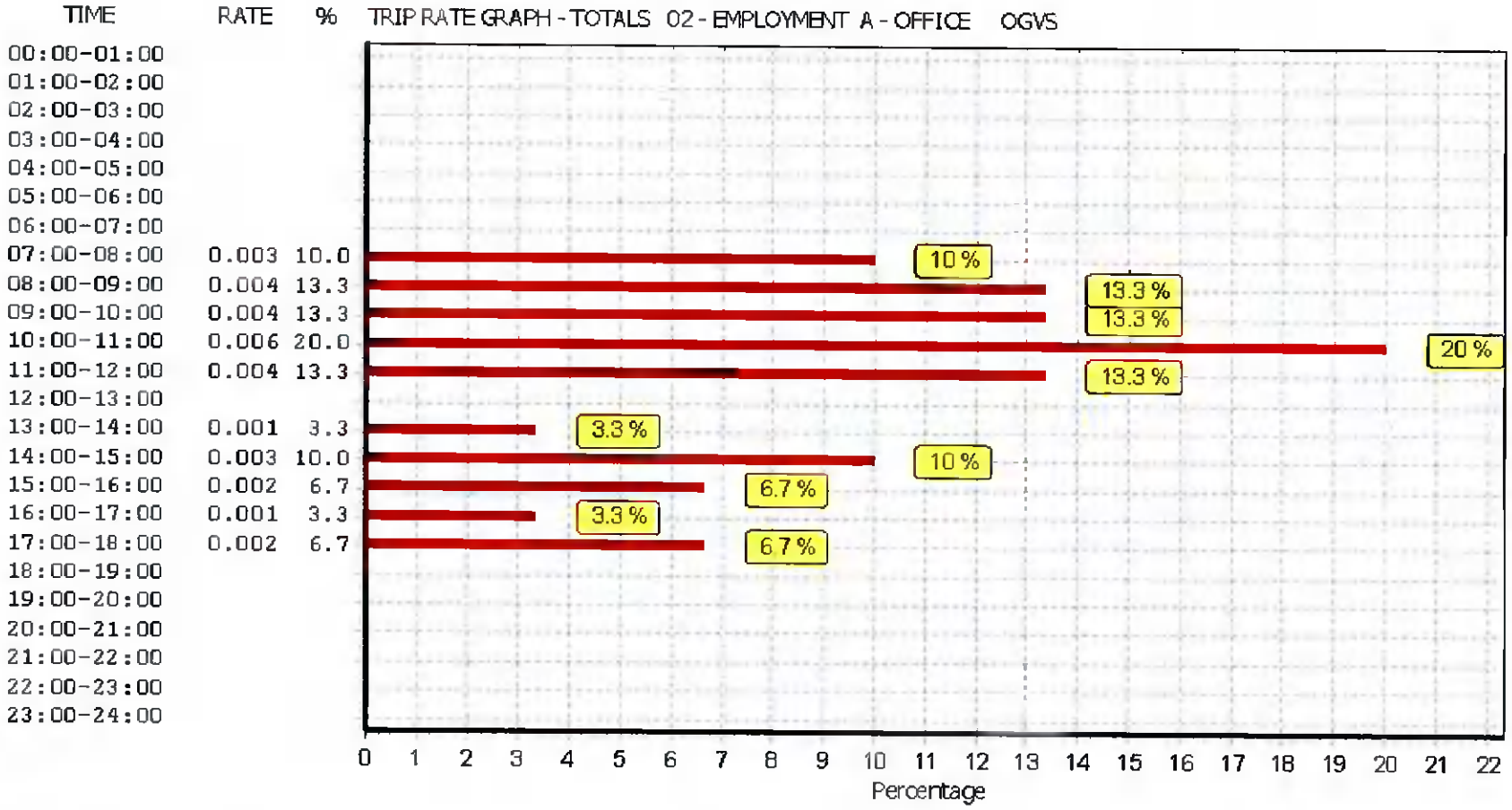
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT A - OFFICE OGVS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.001	7.1
08:00-09:00	0.002	14.3
09:00-10:00	0.002	14.3
10:00-11:00	0.003	21.4
11:00-12:00	0.002	14.3
12:00-13:00		
13:00-14:00	0.001	7.1
14:00-15:00	0.001	7.1
15:00-16:00		
16:00-17:00	0.001	7.1
17:00-18:00	0.001	7.1
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

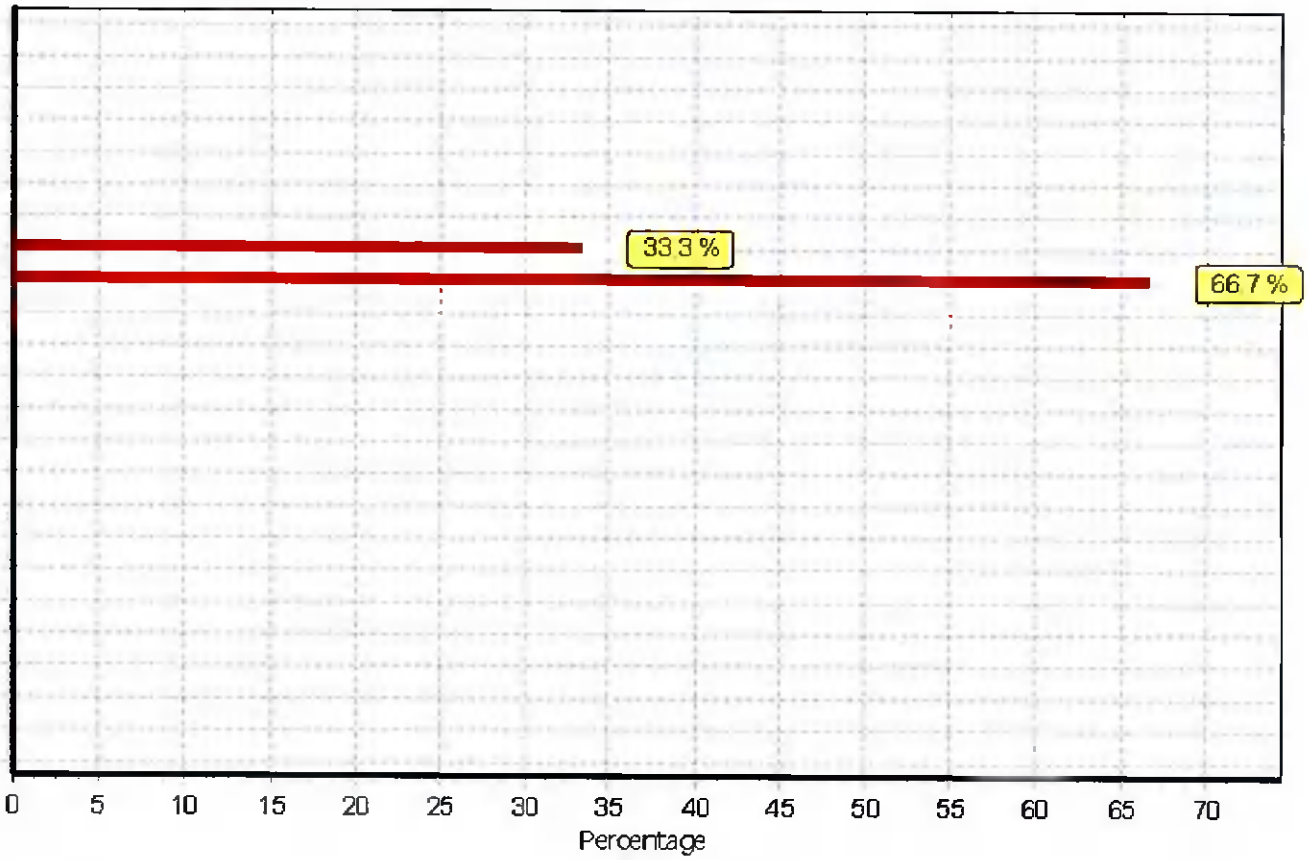
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	50	3999	0.000	50	3999	0.000	50	3999	0.000
07:30 - 08:00	50	3999	0.001	50	3999	0.000	50	3999	0.001
08:00 - 08:30	**52**	**3857**	**0.001**	52	3857	0.000	52	3857	0.001
08:30 - 09:00	53	3896	0.001	53	3896	0.000	53	3896	0.001
09:00 - 09:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
09:30 - 10:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
10:00 - 10:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
10:30 - 11:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
11:00 - 11:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
11:30 - 12:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
12:00 - 12:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
12:30 - 13:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
13:00 - 13:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
13:30 - 14:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
14:00 - 14:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
14:30 - 15:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
15:00 - 15:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
15:30 - 16:00	53	3896	0.000	**53**	**3896**	**0.003**	**53**	**3896**	**0.003**
16:00 - 16:30	53	3896	0.000	53	3896	0.002	53	3896	0.002
16:30 - 17:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
17:00 - 17:30	53	3896	0.000	53	3896	0.001	53	3896	0.001
17:30 - 18:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
18:00 - 18:30	50	4093	0.000	50	4093	0.000	50	4093	0.000
18:30 - 19:00	49	4168	0.000	49	4168	0.000	49	4168	0.000
19:00 - 19:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
19:30 - 20:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:00 - 20:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:30 - 21:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.003			0.006			0.009

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.*

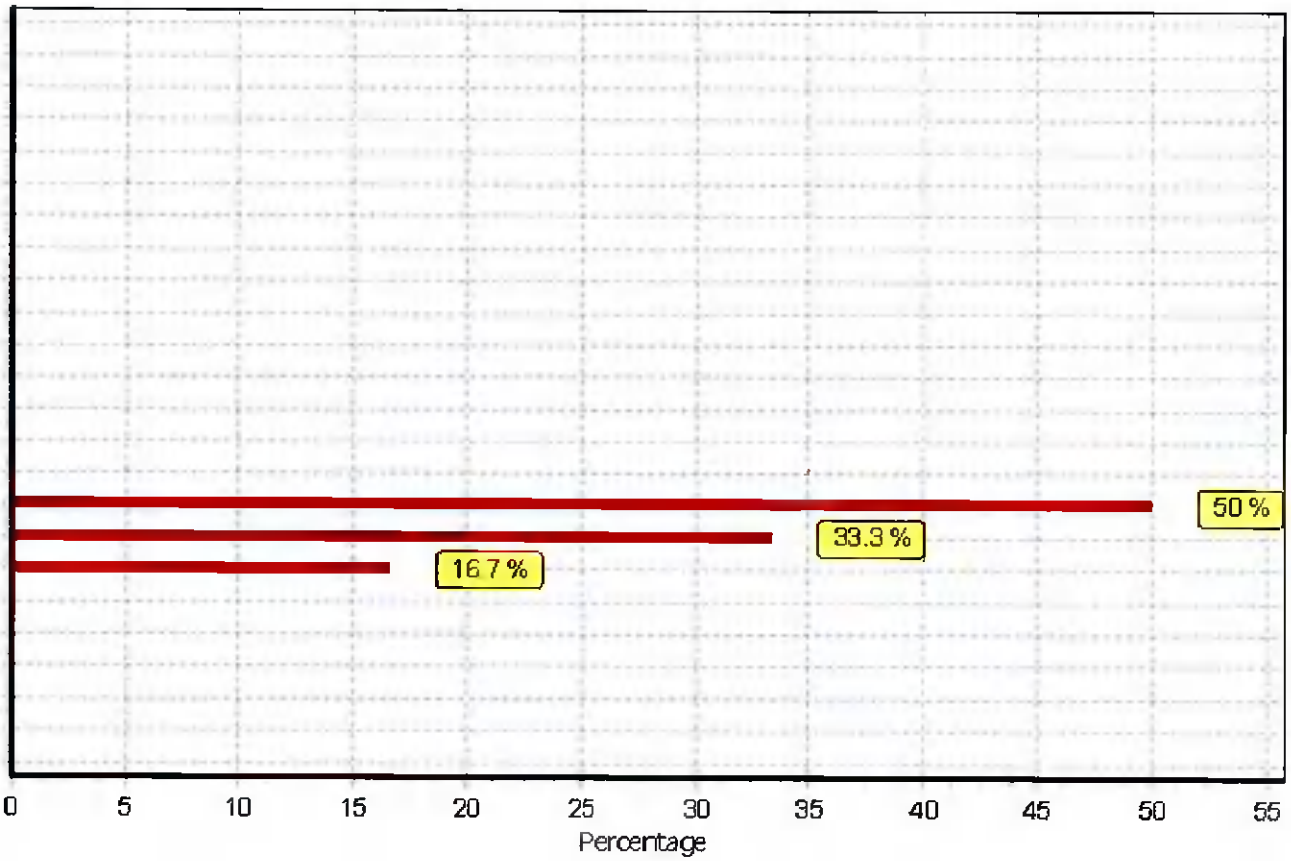
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.001	33.3
08:00-09:00	0.002	66.7
09:00-10:00		
10:00-11:00		
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00		
15:00-16:00		
16:00-17:00		
17:00-18:00		
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		

TRIP RATE GRAPH - ARRIVALS 02 - EMPLOYMENT A - OFFICE PSVS



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

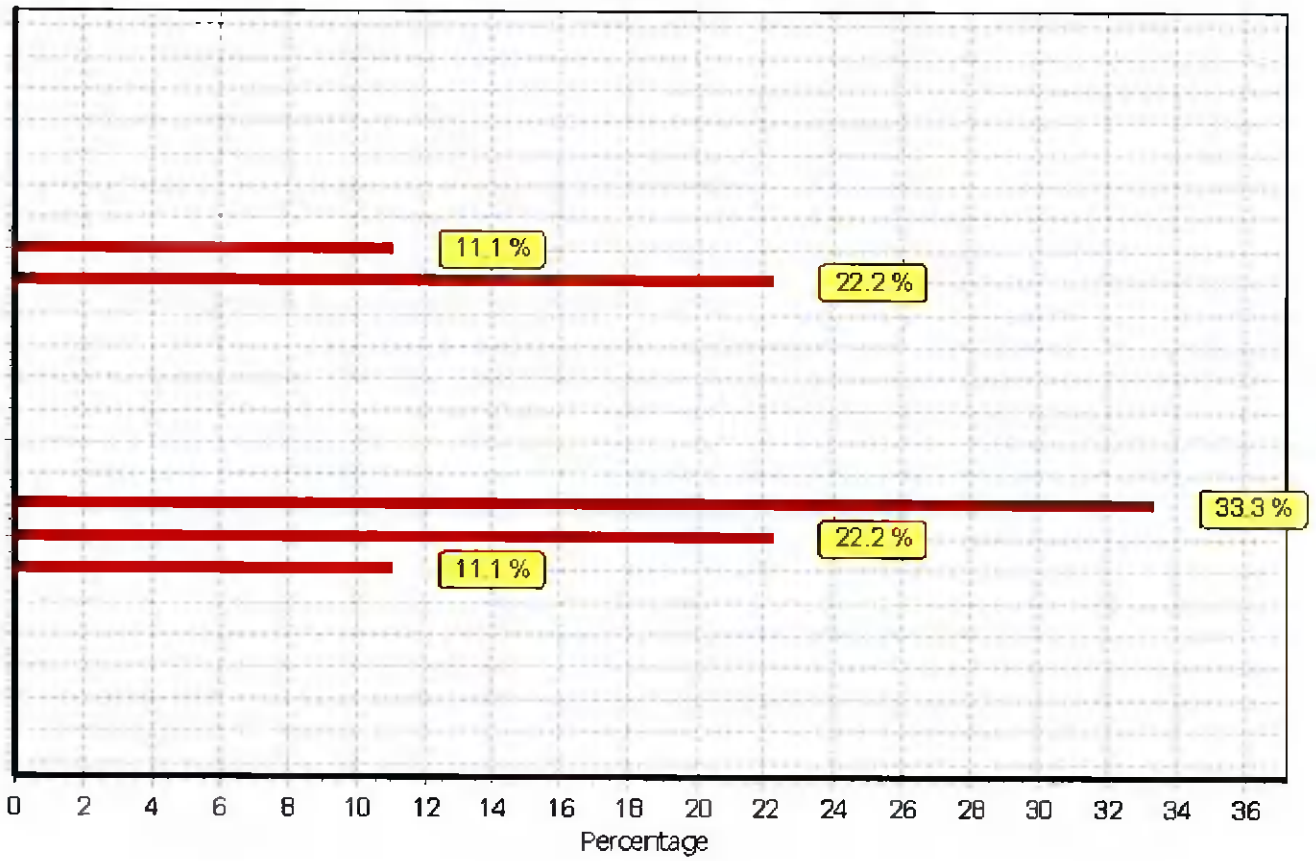
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00		
08:00-09:00		
09:00-10:00		
10:00-11:00		
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00		
15:00-16:00	0.003	50.0
16:00-17:00	0.002	33.3
17:00-18:00	0.001	16.7
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT A - OFFICE PSVS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.001	11.1
08:00-09:00	0.002	22.2
09:00-10:00		
10:00-11:00		
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00		
15:00-16:00	0.003	33.3
16:00-17:00	0.002	22.2
17:00-18:00	0.001	11.1
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

CYCLISTS

Calculation factor: 100 sqm

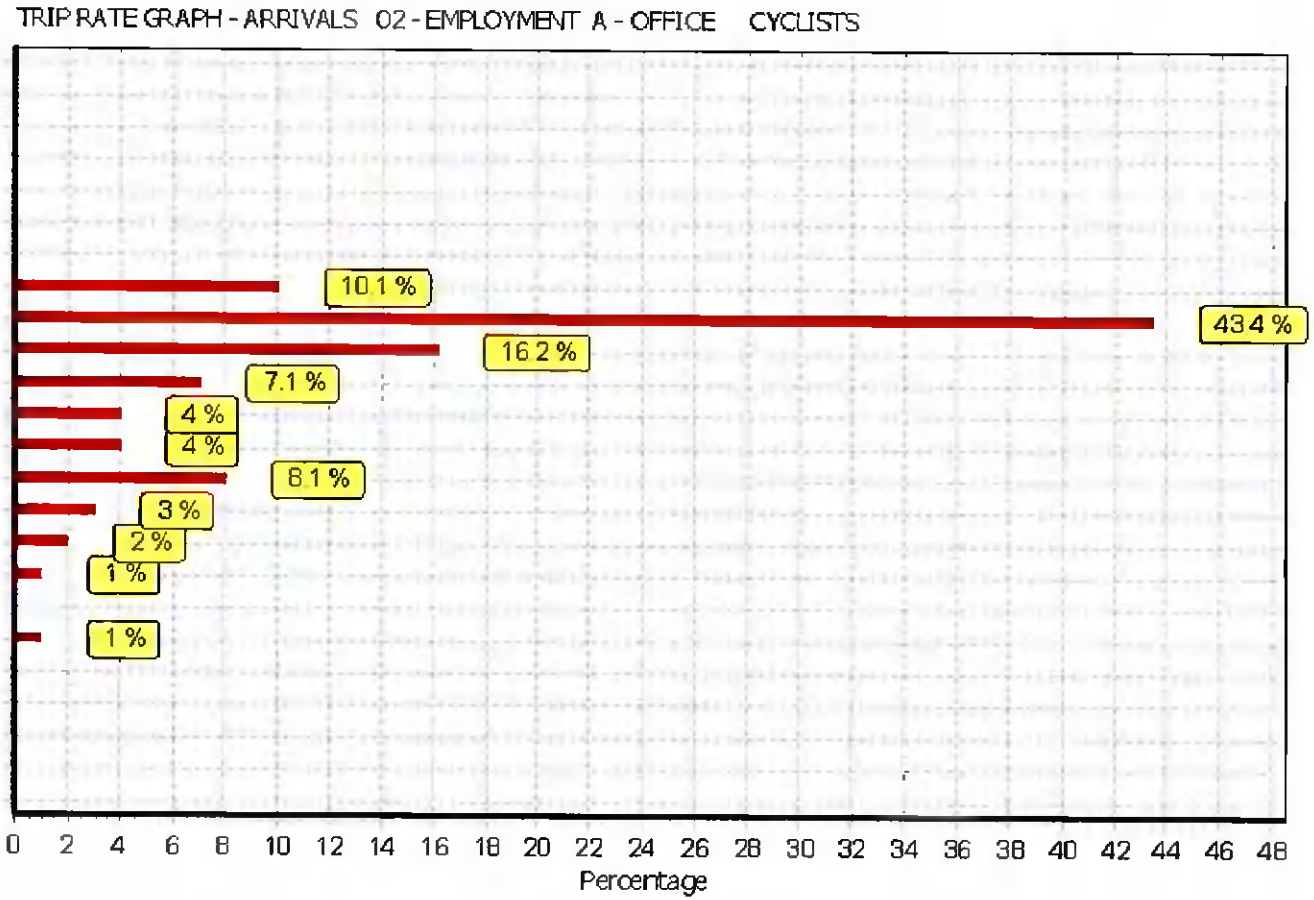
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	50	3999	0.001	50	3999	0.000	50	3999	0.001
07:30 - 08:00	50	3999	0.009	50	3999	0.002	50	3999	0.011
08:00 - 08:30	52	3857	0.015	52	3857	0.000	52	3857	0.015
08:30 - 09:00	**53**	**3896**	**0.028**	53	3896	0.000	**53**	**3896**	**0.028**
09:00 - 09:30	53	3896	0.010	53	3896	0.000	53	3896	0.010
09:30 - 10:00	53	3896	0.006	53	3896	0.000	53	3896	0.006
10:00 - 10:30	53	3896	0.004	53	3896	0.001	53	3896	0.005
10:30 - 11:00	53	3896	0.003	53	3896	0.002	53	3896	0.005
11:00 - 11:30	53	3896	0.002	53	3896	0.001	53	3896	0.003
11:30 - 12:00	53	3896	0.002	53	3896	0.002	53	3896	0.004
12:00 - 12:30	53	3896	0.002	53	3896	0.004	53	3896	0.006
12:30 - 13:00	53	3896	0.002	53	3896	0.003	53	3896	0.005
13:00 - 13:30	53	3896	0.005	53	3896	0.005	53	3896	0.010
13:30 - 14:00	53	3896	0.003	53	3896	0.003	53	3896	0.006
14:00 - 14:30	53	3896	0.001	53	3896	0.002	53	3896	0.003
14:30 - 15:00	53	3896	0.002	53	3896	0.003	53	3896	0.005
15:00 - 15:30	53	3896	0.001	53	3896	0.003	53	3896	0.004
15:30 - 16:00	53	3896	0.001	53	3896	0.003	53	3896	0.004
16:00 - 16:30	53	3896	0.001	53	3896	0.008	53	3896	0.009
16:30 - 17:00	53	3896	0.000	53	3896	0.008	53	3896	0.008
17:00 - 17:30	53	3896	0.000	**53**	**3896**	**0.021**	53	3896	0.021
17:30 - 18:00	53	3896	0.000	53	3896	0.016	53	3896	0.016
18:00 - 18:30	50	4093	0.001	50	4093	0.010	50	4093	0.011
18:30 - 19:00	49	4168	0.000	49	4168	0.001	49	4168	0.001
19:00 - 19:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
19:30 - 20:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:00 - 20:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:30 - 21:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.099			0.098			0.197

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.

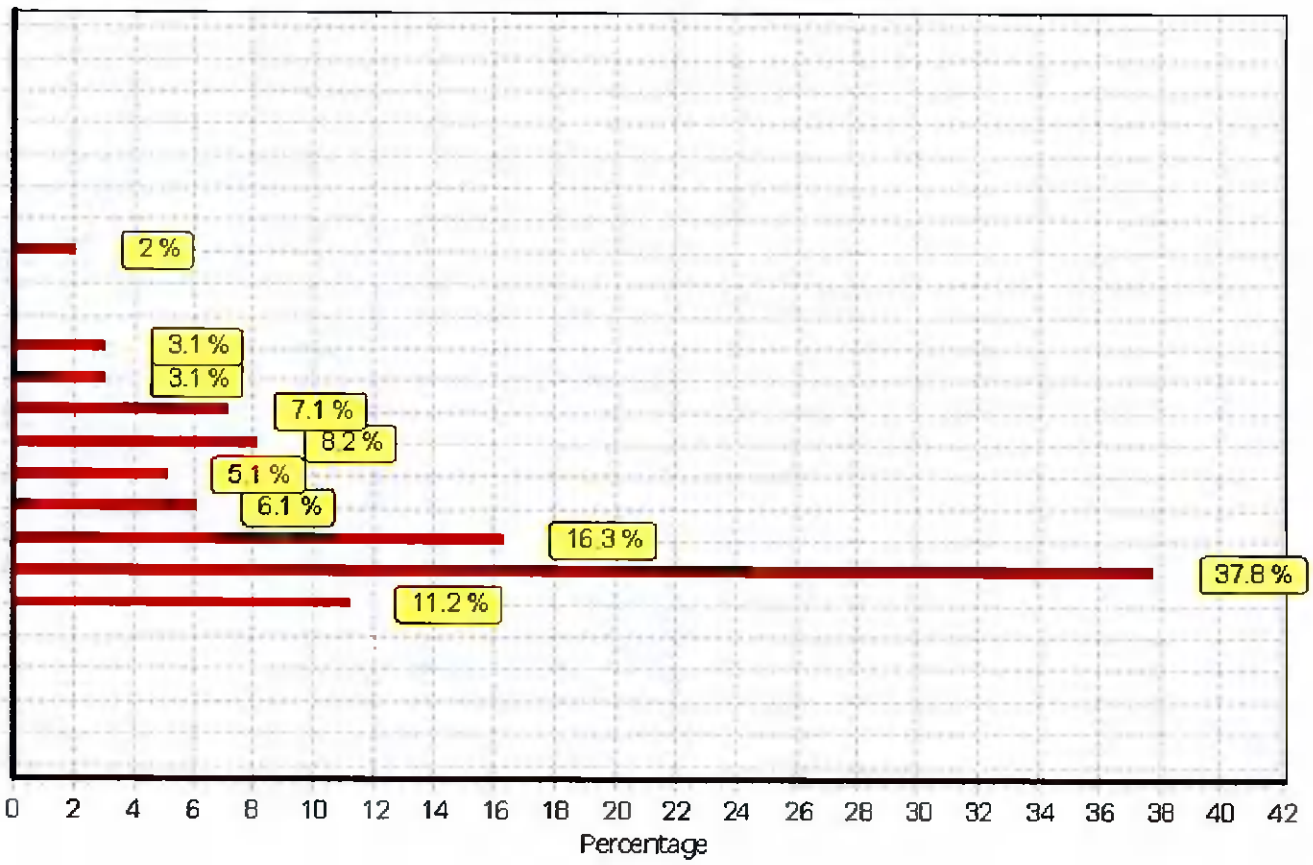
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.010	10.1
08:00-09:00	0.043	43.4
09:00-10:00	0.016	16.2
10:00-11:00	0.007	7.1
11:00-12:00	0.004	4.0
12:00-13:00	0.004	4.0
13:00-14:00	0.008	8.1
14:00-15:00	0.003	3.0
15:00-16:00	0.002	2.0
16:00-17:00	0.001	1.0
17:00-18:00		
18:00-19:00	0.001	1.0
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

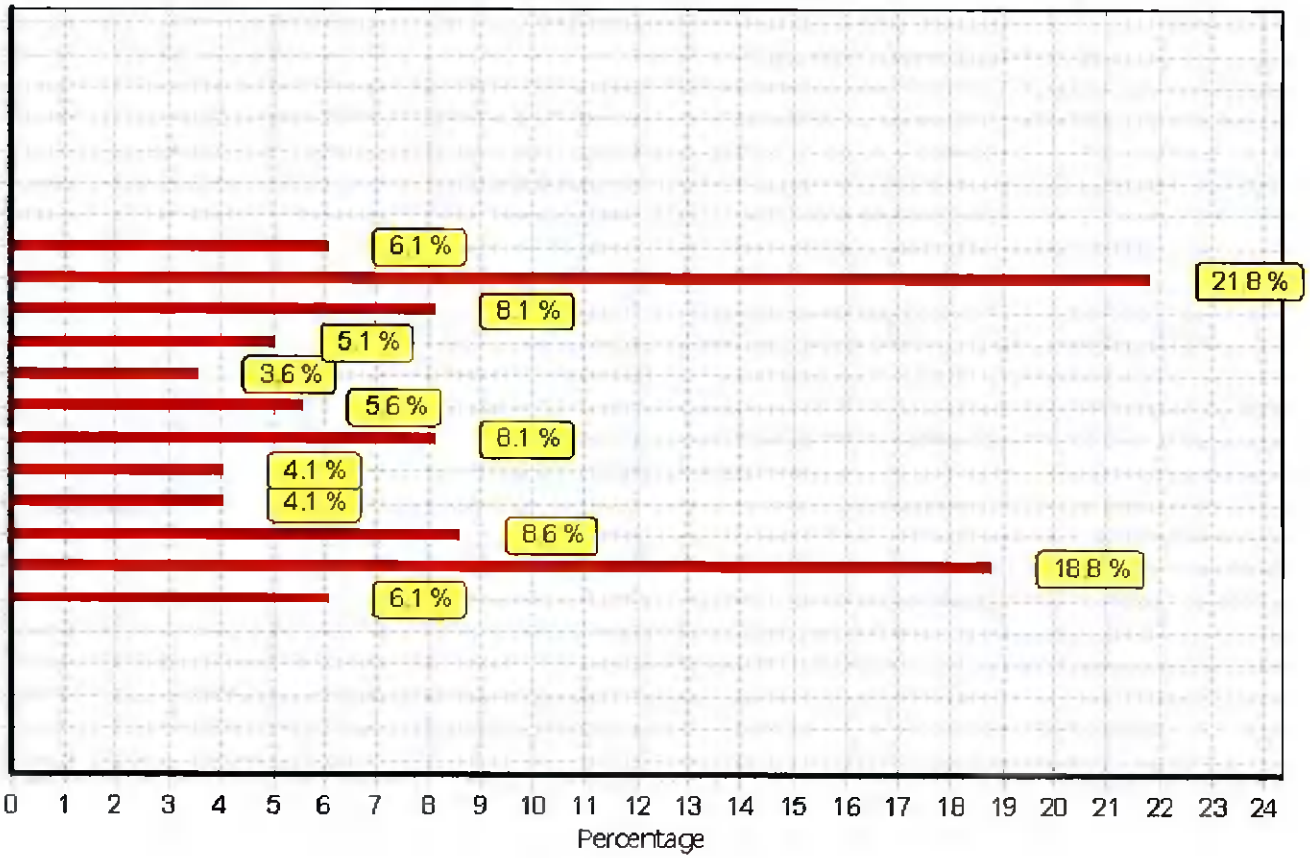
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.002	2.0
08:00-09:00		
09:00-10:00		
10:00-11:00	0.003	3.1
11:00-12:00	0.003	3.1
12:00-13:00	0.007	7.1
13:00-14:00	0.008	8.2
14:00-15:00	0.005	5.1
15:00-16:00	0.006	6.1
16:00-17:00	0.016	16.3
17:00-18:00	0.037	37.8
18:00-19:00	0.011	11.2
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT A - OFFICE CYCLISTS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.012	6.1
08:00-09:00	0.043	21.8
09:00-10:00	0.016	8.1
10:00-11:00	0.010	5.1
11:00-12:00	0.007	3.6
12:00-13:00	0.011	5.6
13:00-14:00	0.016	8.1
14:00-15:00	0.008	4.1
15:00-16:00	0.008	4.1
16:00-17:00	0.017	8.6
17:00-18:00	0.037	18.8
18:00-19:00	0.012	6.1
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

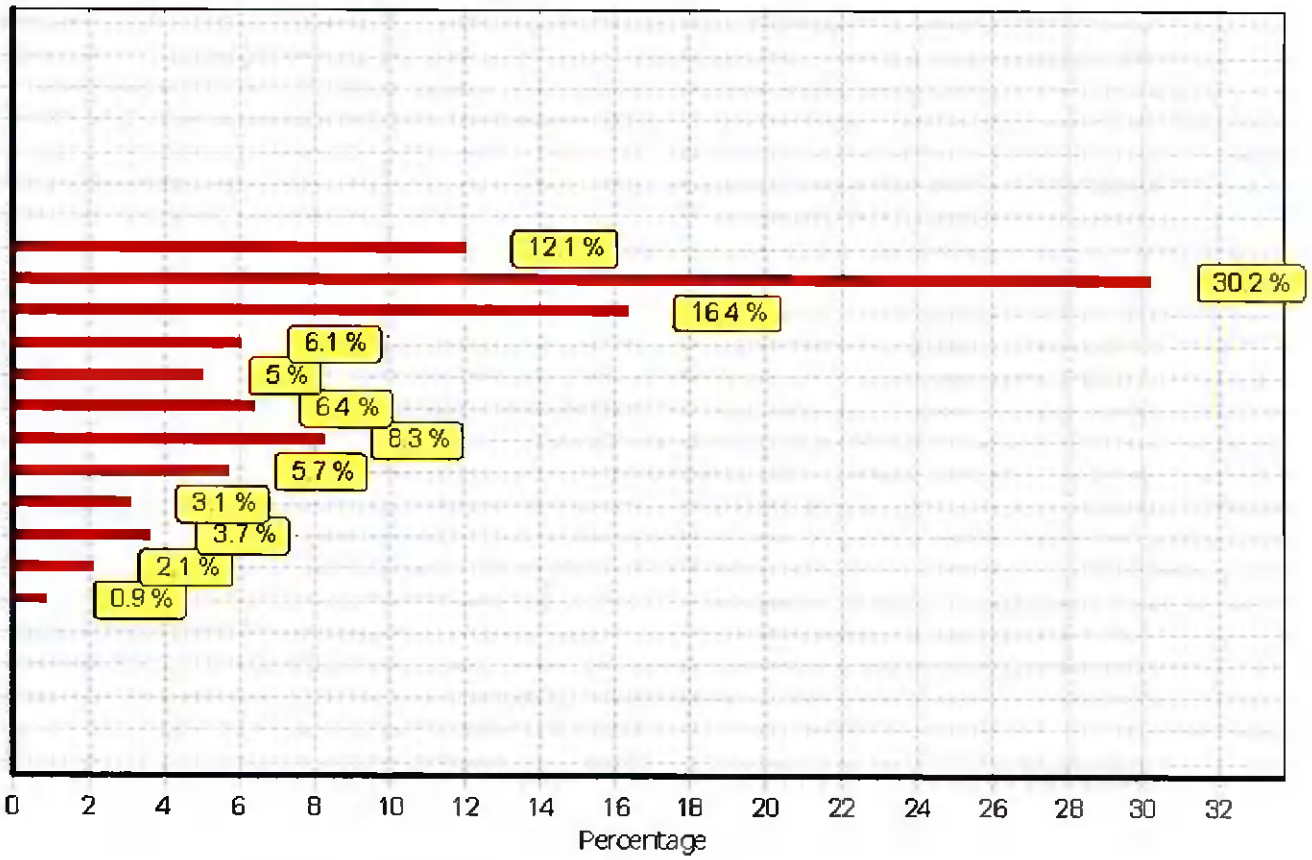
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	50	3999	0.084	50	3999	0.008	50	3999	0.092
07:30 - 08:00	50	3999	0.326	50	3999	0.046	50	3999	0.372
08:00 - 08:30	52	3857	0.471	52	3857	0.043	52	3857	0.514
08:30 - 09:00	**53**	**3896**	**0.556**	53	3896	0.061	**53**	**3896**	**0.617**
09:00 - 09:30	53	3896	0.349	**53**	3896	0.053	53	3896	0.402
09:30 - 10:00	53	3896	0.207	**53**	3896	0.091	53	3896	0.298
10:00 - 10:30	53	3896	0.108	**53**	3896	0.076	53	3896	0.184
10:30 - 11:00	53	3896	0.099	53	3896	0.069	53	3896	0.168
11:00 - 11:30	53	3896	0.081	53	3896	0.077	53	3896	0.158
11:30 - 12:00	53	3896	0.090	53	3896	0.078	53	3896	0.168
12:00 - 12:30	53	3896	0.094	53	3896	0.139	53	3896	0.233
12:30 - 13:00	53	3896	0.124	53	3896	0.164	53	3896	0.288
13:00 - 13:30	53	3896	0.132	53	3896	0.152	53	3896	0.284
13:30 - 14:00	53	3896	0.149	**53**	3896	0.123	53	3896	0.272
14:00 - 14:30	53	3896	0.121	**53**	3896	0.090	53	3896	0.211
14:30 - 15:00	53	3896	0.074	**53**	3896	0.113	53	3896	0.187
15:00 - 15:30	53	3896	0.060	53	3896	0.096	53	3896	0.156
15:30 - 16:00	53	3896	0.046	53	3896	0.117	53	3896	0.163
16:00 - 16:30	53	3896	0.060	53	3896	0.261	53	3896	0.321
16:30 - 17:00	53	3896	0.065	53	3896	0.314	53	3896	0.379
17:00 - 17:30	53	3896	0.038	**53**	**3896**	**0.468**	53	3896	0.506
17:30 - 18:00	53	3896	0.034	53	3896	0.303	53	3896	0.337
18:00 - 18:30	50	4093	0.017	50	4093	0.234	50	4093	0.251
18:30 - 19:00	49	4168	0.014	49	4168	0.101	49	4168	0.115
19:00 - 19:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
19:30 - 20:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:00 - 20:30	1	2150	0.000	1	2150	0.047	1	2150	0.047
20:30 - 21:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.399			3.324			6.723

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 GRAPH - ARRIVALS 02 - EMPLOYMENT A - OFFICE CARS

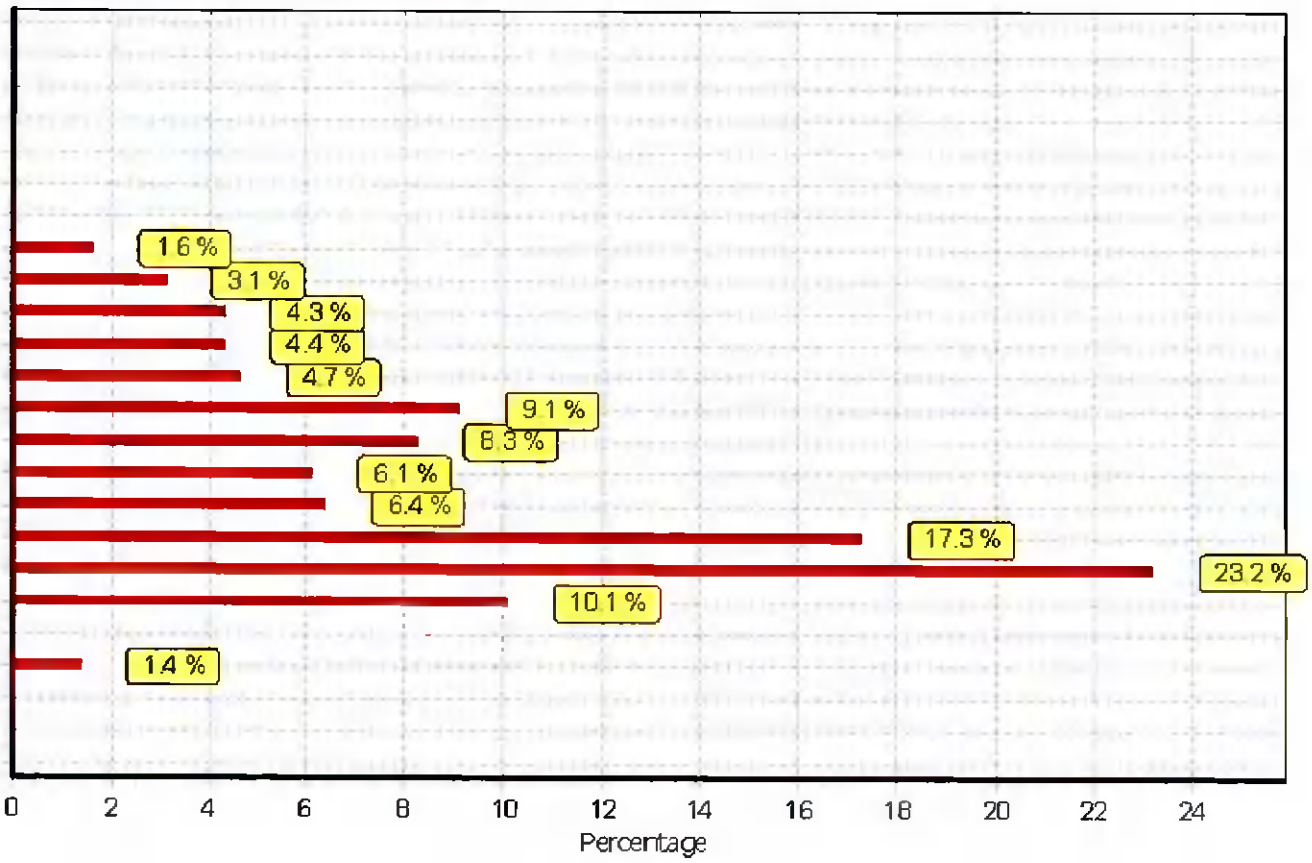
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.410	12.1
08:00-09:00	1.027	30.2
09:00-10:00	0.556	16.4
10:00-11:00	0.207	6.1
11:00-12:00	0.171	5.0
12:00-13:00	0.218	6.4
13:00-14:00	0.281	8.3
14:00-15:00	0.195	5.7
15:00-16:00	0.106	3.1
16:00-17:00	0.125	3.7
17:00-18:00	0.072	2.1
18:00-19:00	0.031	0.9
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT A - OFFICE CARS

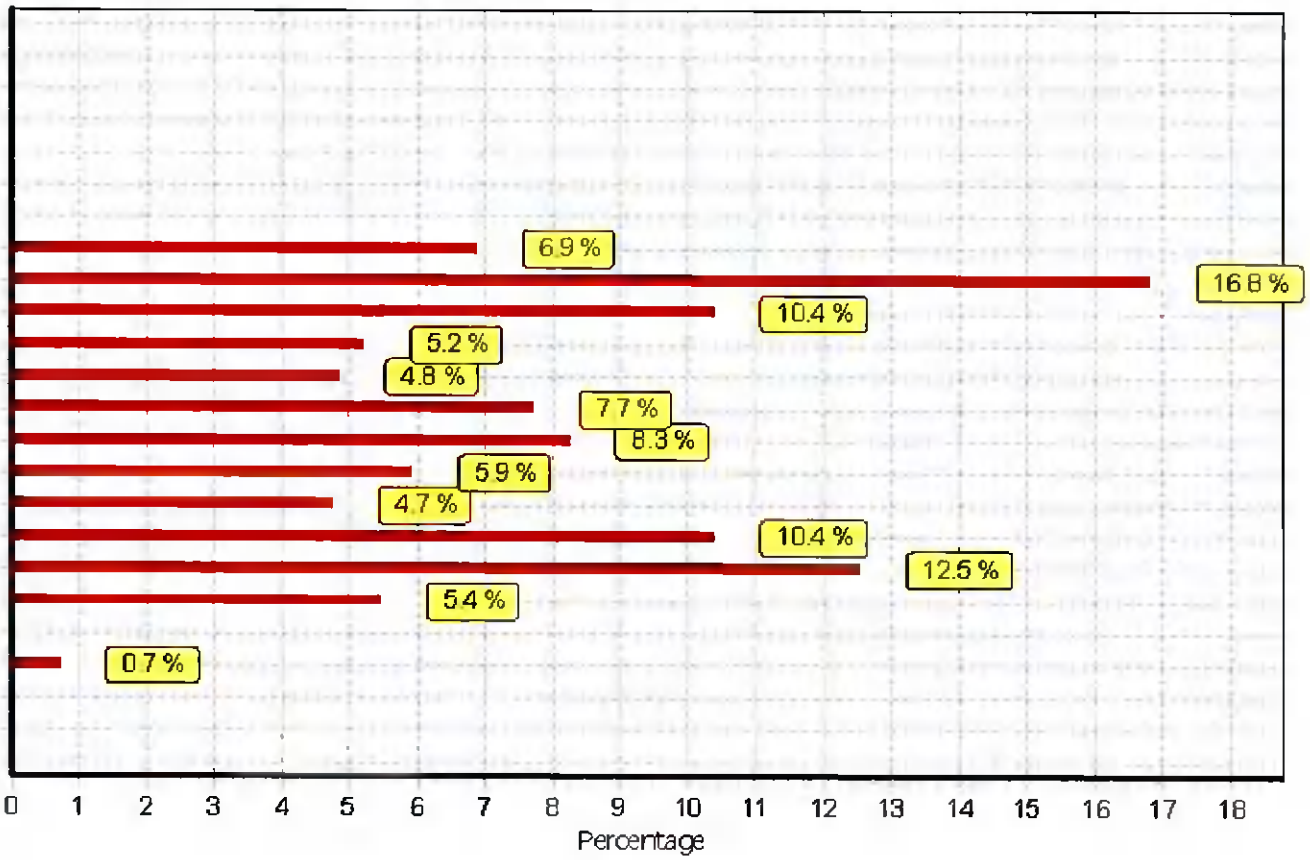
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.054	1.6
08:00-09:00	0.104	3.1
09:00-10:00	0.144	4.3
10:00-11:00	0.145	4.4
11:00-12:00	0.155	4.7
12:00-13:00	0.303	9.1
13:00-14:00	0.275	8.3
14:00-15:00	0.203	6.1
15:00-16:00	0.213	6.4
16:00-17:00	0.575	17.3
17:00-18:00	0.771	23.2
18:00-19:00	0.335	10.1
19:00-20:00		
20:00-21:00	0.047	1.4
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT A - OFFICE CARS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.464	6.9
08:00-09:00	1.131	16.8
09:00-10:00	0.700	10.4
10:00-11:00	0.352	5.2
11:00-12:00	0.326	4.8
12:00-13:00	0.521	7.7
13:00-14:00	0.556	8.3
14:00-15:00	0.398	5.9
15:00-16:00	0.319	4.7
16:00-17:00	0.700	10.4
17:00-18:00	0.843	12.5
18:00-19:00	0.366	5.4
19:00-20:00		
20:00-21:00	0.047	0.7
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

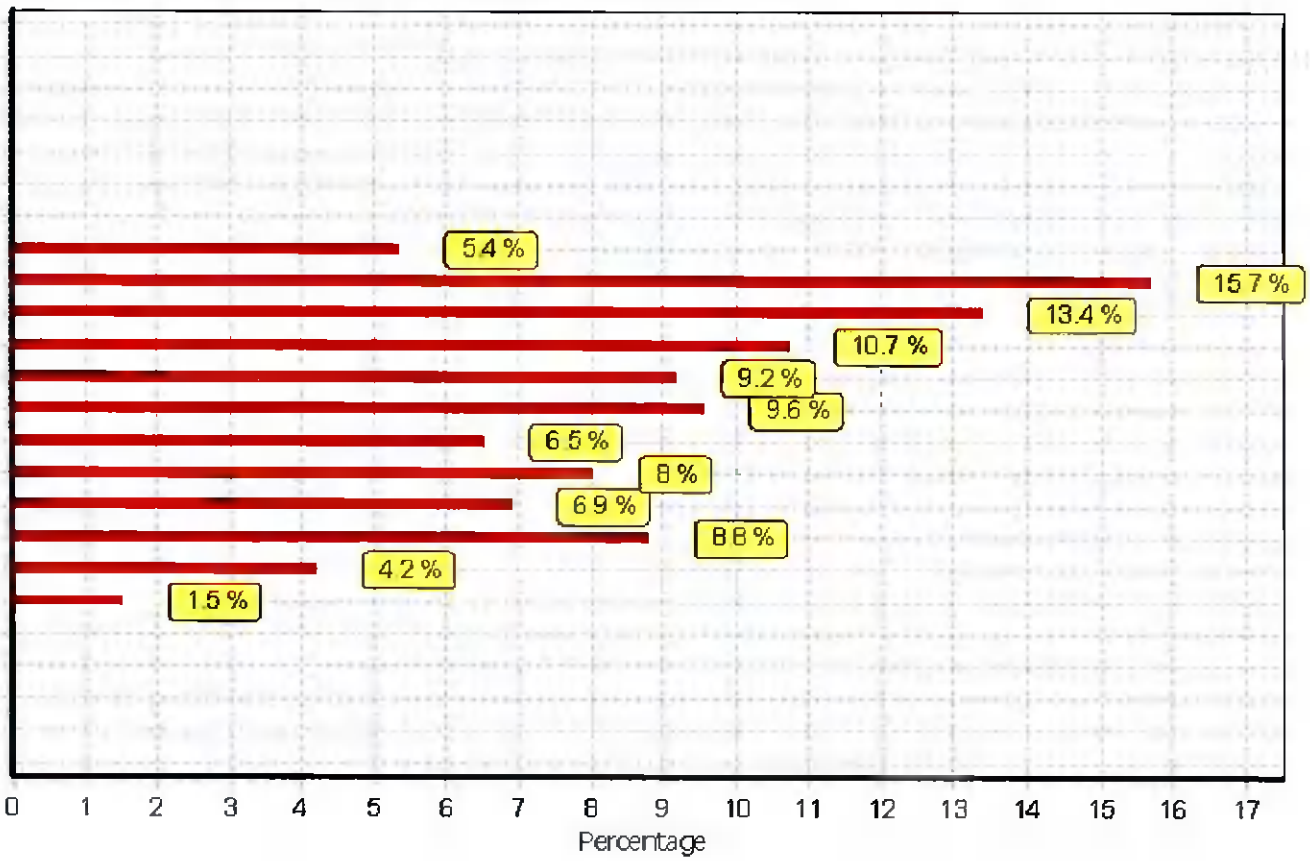
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	50	3999	0.003	50	3999	0.003	50	3999	0.006
07:30 - 08:00	50	3999	0.011	50	3999	0.009	50	3999	0.020
08:00 - 08:30	52	3857	0.018	52	3857	0.016	52	3857	0.034
08:30 - 09:00	**53**	**3896**	**0.023**	53	3896	0.017	**53**	**3896**	**0.040**
09:00 - 09:30	53	3896	0.020	53	3896	0.017	53	3896	0.037
09:30 - 10:00	53	3896	0.015	53	3896	0.011	53	3896	0.026
10:00 - 10:30	53	3896	0.016	53	3896	0.013	53	3896	0.029
10:30 - 11:00	53	3896	0.012	53	3896	0.013	53	3896	0.025
11:00 - 11:30	53	3896	0.011	53	3896	0.010	53	3896	0.021
11:30 - 12:00	53	3896	0.013	53	3896	0.011	53	3896	0.024
12:00 - 12:30	53	3896	0.012	53	3896	0.014	53	3896	0.026
12:30 - 13:00	53	3896	0.013	53	3896	0.014	53	3896	0.027
13:00 - 13:30	53	3896	0.009	53	3896	0.009	53	3896	0.018
13:30 - 14:00	53	3896	0.008	53	3896	0.009	53	3896	0.017
14:00 - 14:30	53	3896	0.010	53	3896	0.006	53	3896	0.016
14:30 - 15:00	53	3896	0.011	53	3896	0.007	53	3896	0.018
15:00 - 15:30	53	3896	0.010	53	3896	0.015	53	3896	0.025
15:30 - 16:00	53	3896	0.008	53	3896	0.007	53	3896	0.015
16:00 - 16:30	53	3896	0.011	**53**	**3896**	**0.018**	53	3896	0.029
16:30 - 17:00	53	3896	0.012	53	3896	0.010	53	3896	0.022
17:00 - 17:30	53	3896	0.007	53	3896	0.012	53	3896	0.019
17:30 - 18:00	53	3896	0.004	53	3896	0.008	53	3896	0.012
18:00 - 18:30	50	4093	0.002	50	4093	0.006	50	4093	0.008
18:30 - 19:00	49	4168	0.002	49	4168	0.004	49	4168	0.006
19:00 - 19:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
19:30 - 20:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:00 - 20:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:30 - 21:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.261			0.259			0.520

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 GRAPH - ARRIVALS 02 - EMPLOYMENT A - OFFICE LGVS

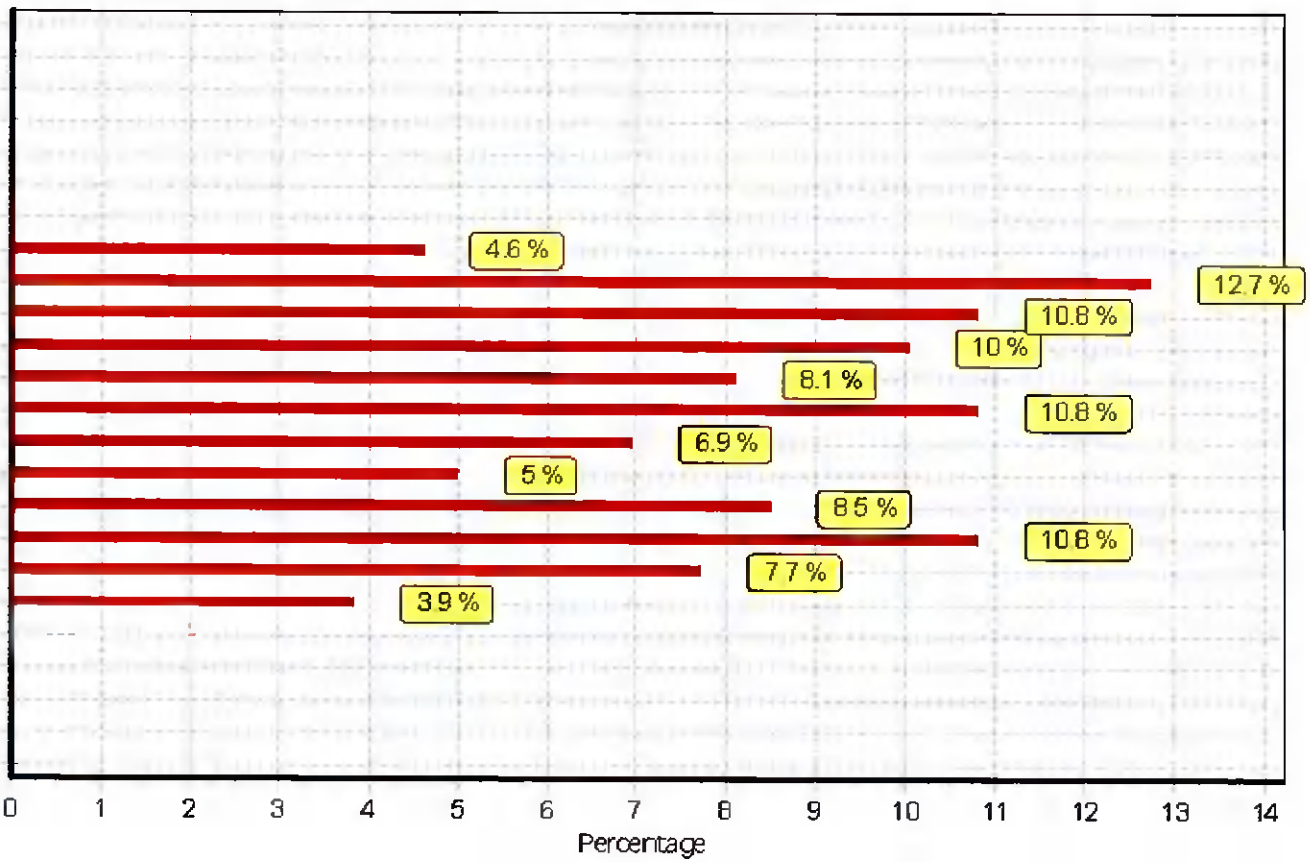
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.014	5.4
08:00-09:00	0.041	15.7
09:00-10:00	0.035	13.4
10:00-11:00	0.028	10.7
11:00-12:00	0.024	9.2
12:00-13:00	0.025	9.6
13:00-14:00	0.017	6.5
14:00-15:00	0.021	8.0
15:00-16:00	0.018	6.9
16:00-17:00	0.023	8.8
17:00-18:00	0.011	4.2
18:00-19:00	0.004	1.5
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT A - OFFICE LGVS

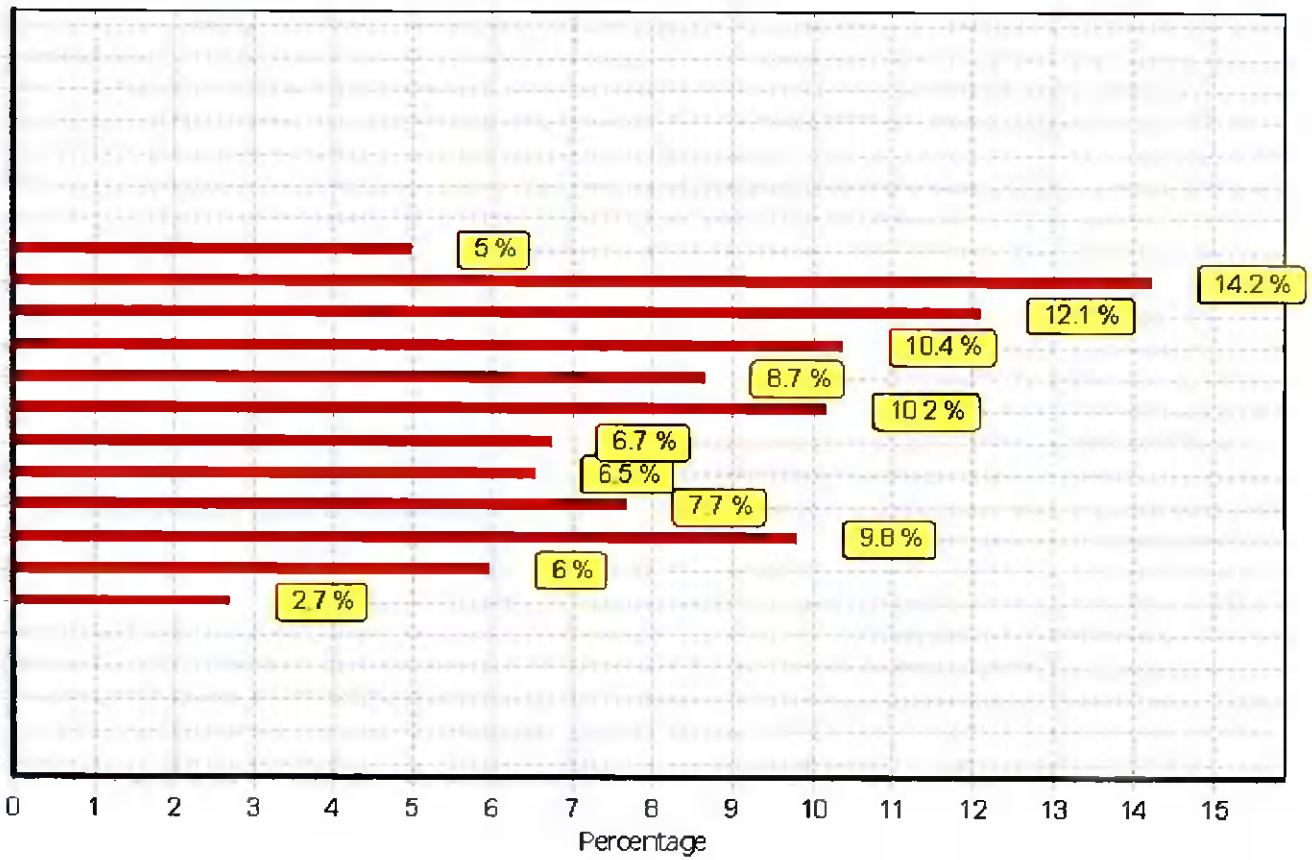
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.012	4.6
08:00-09:00	0.033	12.7
09:00-10:00	0.028	10.8
10:00-11:00	0.026	10.0
11:00-12:00	0.021	8.1
12:00-13:00	0.028	10.8
13:00-14:00	0.018	6.9
14:00-15:00	0.013	5.0
15:00-16:00	0.022	8.5
16:00-17:00	0.028	10.8
17:00-18:00	0.020	7.7
18:00-19:00	0.010	3.9
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT A - OFFICE LGVS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.026	5.0
08:00-09:00	0.074	14.2
09:00-10:00	0.063	12.1
10:00-11:00	0.054	10.4
11:00-12:00	0.045	8.7
12:00-13:00	0.053	10.2
13:00-14:00	0.035	6.7
14:00-15:00	0.034	6.5
15:00-16:00	0.040	7.7
16:00-17:00	0.051	9.8
17:00-18:00	0.031	6.0
18:00-19:00	0.014	2.7
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

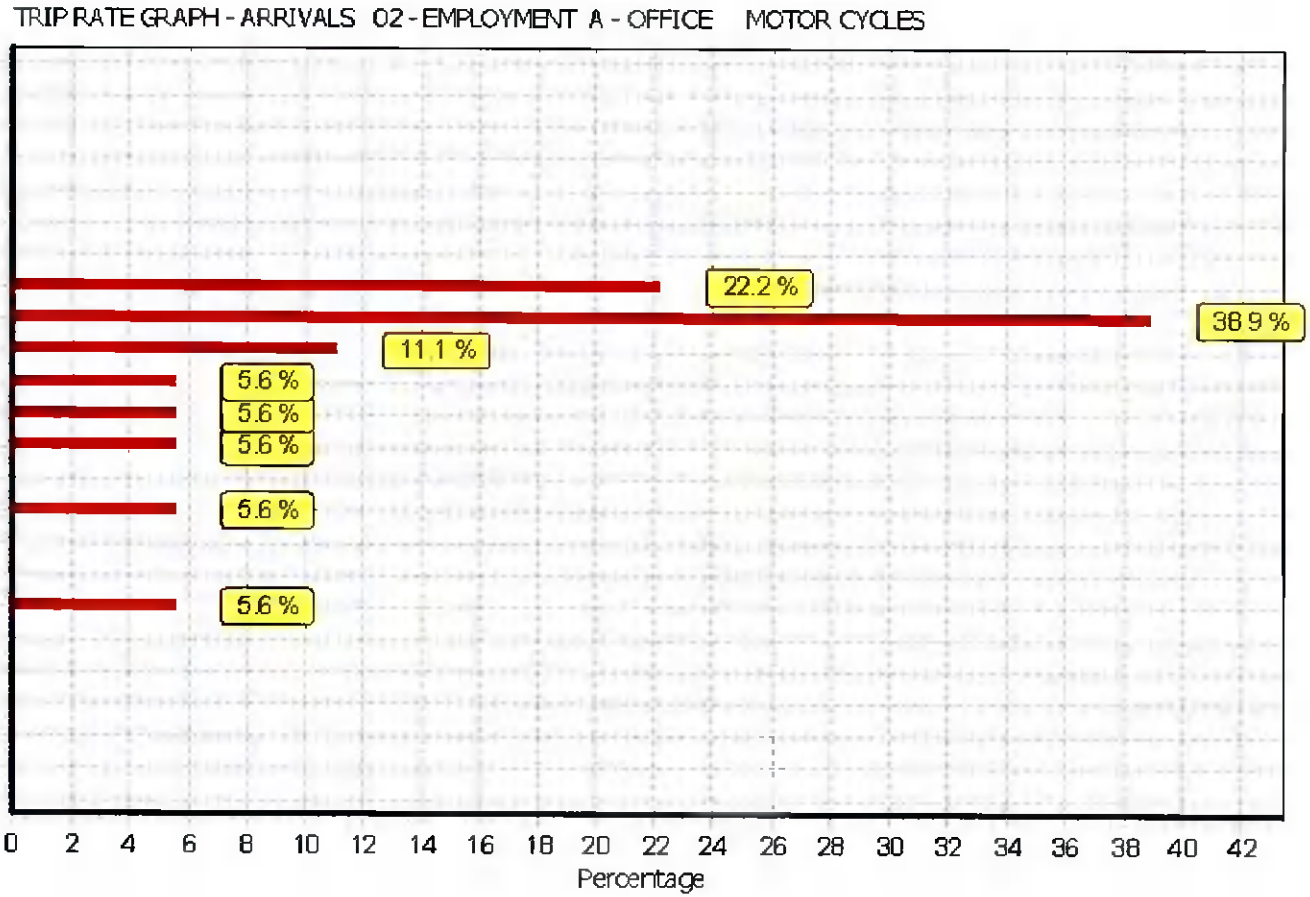
TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	50	3999	0.001	50	3999	0.000	50	3999	0.001
07:30 - 08:00	50	3999	0.003	50	3999	0.000	50	3999	0.003
08:00 - 08:30	52	3857	0.002	52	3857	0.000	52	3857	0.002
08:30 - 09:00	**53**	**3896**	**0.005**	53	3896	0.000	53	3896	0.005
09:00 - 09:30	53	3896	0.002	53	3896	0.000	53	3896	0.002
09:30 - 10:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
10:00 - 10:30	53	3896	0.001	53	3896	0.000	53	3896	0.001
10:30 - 11:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
11:00 - 11:30	53	3896	0.001	53	3896	0.000	53	3896	0.001
11:30 - 12:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
12:00 - 12:30	53	3896	0.000	53	3896	0.001	53	3896	0.001
12:30 - 13:00	53	3896	0.001	53	3896	0.000	53	3896	0.001
13:00 - 13:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
13:30 - 14:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
14:00 - 14:30	53	3896	0.001	53	3896	0.001	53	3896	0.002
14:30 - 15:00	53	3896	0.000	53	3896	0.000	53	3896	0.000
15:00 - 15:30	53	3896	0.000	53	3896	0.000	53	3896	0.000
15:30 - 16:00	53	3896	0.000	53	3896	0.001	53	3896	0.001
16:00 - 16:30	53	3896	0.000	53	3896	0.001	53	3896	0.001
16:30 - 17:00	53	3896	0.000	53	3896	0.001	53	3896	0.001
17:00 - 17:30	53	3896	0.001	**53**	**3896**	**0.007**	**53**	**3896**	**0.008**
17:30 - 18:00	53	3896	0.000	53	3896	0.004	53	3896	0.004
18:00 - 18:30	50	4093	0.000	50	4093	0.002	50	4093	0.002
18:30 - 19:00	49	4168	0.000	49	4168	0.000	49	4168	0.000
19:00 - 19:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
19:30 - 20:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:00 - 20:30	1	2150	0.000	1	2150	0.000	1	2150	0.000
20:30 - 21:00	1	2150	0.000	1	2150	0.000	1	2150	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.018			0.018			0.036

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.*

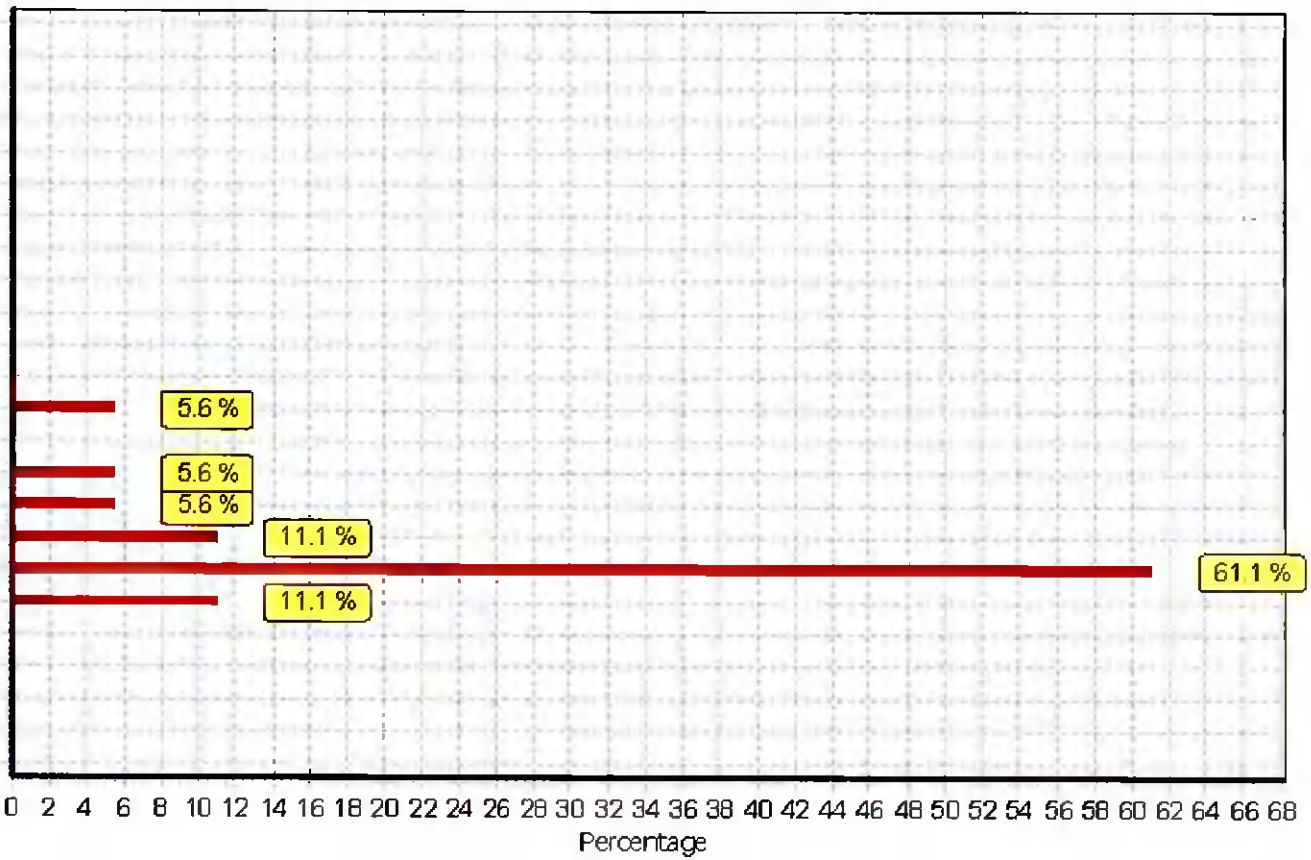
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.004	22.2
08:00-09:00	0.007	38.9
09:00-10:00	0.002	11.1
10:00-11:00	0.001	5.6
11:00-12:00	0.001	5.6
12:00-13:00	0.001	5.6
13:00-14:00		
14:00-15:00	0.001	5.6
15:00-16:00		
16:00-17:00		
17:00-18:00	0.001	5.6
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT A - OFFICE MOTOR CYCLES

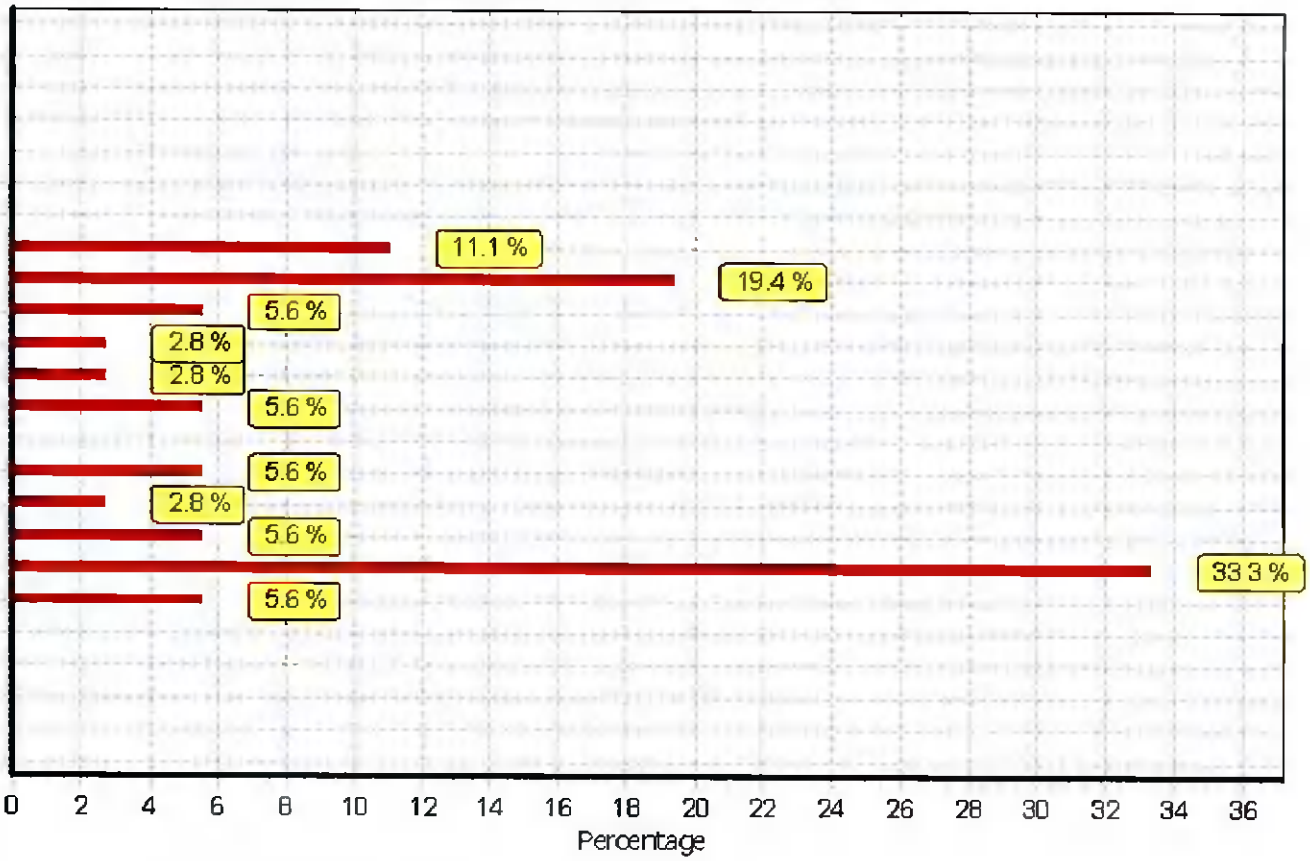
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00		
08:00-09:00		
09:00-10:00		
10:00-11:00		
11:00-12:00		
12:00-13:00	0.001	5.6
13:00-14:00		
14:00-15:00	0.001	5.6
15:00-16:00	0.001	5.6
16:00-17:00	0.002	11.1
17:00-18:00	0.011	61.1
18:00-19:00	0.002	11.1
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT A - OFFICE MOTOR CYCLES

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.004	11.1
08:00-09:00	0.007	19.4
09:00-10:00	0.002	5.6
10:00-11:00	0.001	2.8
11:00-12:00	0.001	2.8
12:00-13:00	0.002	5.6
13:00-14:00		
14:00-15:00	0.002	5.6
15:00-16:00	0.001	2.8
16:00-17:00	0.002	5.6
17:00-18:00	0.012	33.3
18:00-19:00	0.002	5.6
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Calculation Reference: AUDIT-638801-220216-0227

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

04	**EAST ANGLIA**		
	SF	SUFFOLK	2 days
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	2 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days
10	**WALES**		
	BG	BRIDGEND	1 days
	NW	NEWPORT	1 days
13	**MUNSTER**		
	CR	CORK	1 days
14	**LEINSTER**		
	CC	CARLOW	1 days
	LU	LOUTH	1 days
15	**GREATER DUBLIN**		
	DL	DUBLIN	2 days
17	**ULSTER (NORTHERN IRELAND)**		
	AN	ANTRIM	3 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: 650 to 31000 (units: sqm)
Range Selected by User: 634 to 80066 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 19/05/21

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	2 days
Wednesday	3 days
Thursday	5 days
Friday	3 days

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

Selected survey types:

Manual count	16 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	5
Edge of Town	9
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.

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

Secondary Filtering selection:

Use Class:

n/a	1 days
B8	15 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

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	2 days
5,001 to 10,000	4 days
15,001 to 20,000	3 days
20,001 to 25,000	2 days
25,001 to 50,000	2 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,000 or Less	1 days
5,001 to 25,000	2 days
25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	5 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	10 days
1.1 to 1.5	5 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	15 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	16 days

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

LIST OF SITES relevant to selection parameters

1 **AN-02-F-03** **PACKAGING COMPANY** **ANTRIM**
KENNEDY WAY
BELFAST
KENNEDY WAY IND. EST.
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 12234 sqm
Survey date: TUESDAY *11/10/16* *Survey Type: MANUAL*

2 **AN-02-F-04** **TESCO DISTRIBUTION CENTRE** **ANTRIM**
APOLLO ROAD
BELFAST
BALMORAL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 11000 sqm
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

3 **AN-02-F-05** **SEAFOOD DISTRIBUTION** **ANTRIM**
BLACKSTAFF ROAD
BELFAST
ANDERSONSTOWN
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 700 sqm
Survey date: THURSDAY *26/11/20* *Survey Type: MANUAL*

4 **BG-02-F-01** **LOGISTICS COMPANY** **BRIDGEND**
PARC CRESCENT
BRIDGEND
WATERTON IND. EST.
Edge of Town
Industrial Zone
Total Gross floor area: 3050 sqm
Survey date: MONDAY *13/10/14* *Survey Type: MANUAL*

5 **CC-02-F-01** **HYDRAULIC CYCLINDERS** **CARLOW**
O'BRIEN ROAD
CARLOW

Edge of Town
Industrial Zone
Total Gross floor area: 10500 sqm
Survey date: WEDNESDAY *25/05/16* *Survey Type: MANUAL*

6 **CR-02-F-03** **FURNITURE DISTRIBUTION** **CORK**
POULADUFF ROAD
CORK
SOUTHSIDE IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 4800 sqm
Survey date: TUESDAY *15/10/19* *Survey Type: MANUAL*

7 **DL-02-F-03** **BATHROOM TILES & TIMBER** **DUBLIN**
MAPLE AVENUE
DUBLIN
SANDYFORD
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 650 sqm
Survey date: THURSDAY *26/09/19* *Survey Type: MANUAL*

8 **DL-02-F-04** **LOGISTICS COMPANY** **DUBLIN**
SWORDS ROAD
DUBLIN

Edge of Town
Industrial Zone
Total Gross floor area: 3990 sqm
Survey date: WEDNESDAY *19/05/21* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **LU-02-F-01** **PACKAGING COMPANY** **LOUTH**
MATTHEWS LANE
DROGHEDA
LAGAVOOREN
Edge of Town
No Sub Category
Total Gross floor area: 5350 sqm
Survey date: FRIDAY *19/06/15* *Survey Type: MANUAL*

10 **NW-02-F-02** **AMAZON DEPOT** **NEWPORT**
LLANWERN WORKS
NEWPORT

Free Standing (PPS6 Out of Town)
Industrial Zone
Total Gross floor area: 4836 sqm
Survey date: WEDNESDAY *25/11/20* *Survey Type: MANUAL*

11 **SF-02-F-02** **WAREHOUSING** **SUFFOLK**
WALTON ROAD
FELIXSTOWE

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 22270 sqm
Survey date: THURSDAY *11/07/13* *Survey Type: MANUAL*

12 **SF-02-F-03** **ROAD HAULAGE** **SUFFOLK**
CENTRAL AVENUE
IPSWICH
WARREN HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 4700 sqm
Survey date: FRIDAY *18/09/15* *Survey Type: MANUAL*

13 **TW-02-F-01** **ASDA DISTRIBUTION CENTRE** **TYNE & WEAR**
MANDARIN WAY
WASHINGTON
PATTISON IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 31000 sqm
Survey date: FRIDAY *13/11/15* *Survey Type: MANUAL*

14 **WM-02-F-02** **LOGISTICS FIRM** **WEST MIDLANDS**
SOVEREIGN ROAD
BIRMINGHAM
KINGS NORTON
Edge of Town
Commercial Zone
Total Gross floor area: 3625 sqm
Survey date: MONDAY *09/11/15* *Survey Type: MANUAL*

15 **WY-02-F-01** **ELECTRONICS DISTRIBUTION** **WEST YORKSHIRE**
MORTIMER STREET
CLECKHEATON

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 1507 sqm
Survey date: MONDAY *19/09/16* *Survey Type: MANUAL*

16 **WY-02-F-02** **DISTRIBUTION COMPANY** **WEST YORKSHIRE**
STAITHGATE LANE
BRADFORD
NEWHALL
Edge of Town
Industrial Zone
Total Gross floor area: 10446 sqm
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

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

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

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 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	7694	0.054	7	7694	0.032	7	7694	0.086
05:30 - 06:00	7	7694	0.067	7	7694	0.052	7	7694	0.119
06:00 - 06:30	8	7337	0.080	8	7337	0.073	8	7337	0.153
06:30 - 07:00	**8**	**7337**	**0.169**	8	7337	0.065	**8**	**7337**	**0.234**
07:00 - 07:30	16	8166	0.078	16	8166	0.082	16	8166	0.160
07:30 - 08:00	16	8166	0.167	16	8166	0.051	16	8166	0.218
08:00 - 08:30	16	8166	0.086	16	8166	0.053	16	8166	0.139
08:30 - 09:00	16	8166	0.101	16	8166	0.057	16	8166	0.158
09:00 - 09:30	16	8166	0.073	16	8166	0.047	16	8166	0.120
09:30 - 10:00	16	8166	0.058	16	8166	0.040	16	8166	0.098
10:00 - 10:30	16	8166	0.058	16	8166	0.057	16	8166	0.115
10:30 - 11:00	16	8166	0.052	16	8166	0.066	16	8166	0.118
11:00 - 11:30	16	8166	0.045	16	8166	0.049	16	8166	0.094
11:30 - 12:00	16	8166	0.046	16	8166	0.052	16	8166	0.098
12:00 - 12:30	16	8166	0.044	16	8166	0.046	16	8166	0.090
12:30 - 13:00	16	8166	0.051	16	8166	0.066	16	8166	0.117
13:00 - 13:30	16	8166	0.062	16	8166	0.078	16	8166	0.140
13:30 - 14:00	16	8166	0.079	16	8166	0.045	16	8166	0.124
14:00 - 14:30	16	8166	0.057	16	8166	0.056	16	8166	0.113
14:30 - 15:00	16	8166	0.078	16	8166	0.073	16	8166	0.151
15:00 - 15:30	16	8166	0.052	16	8166	0.083	16	8166	0.135
15:30 - 16:00	16	8166	0.061	16	8166	0.058	16	8166	0.119
16:00 - 16:30	16	8166	0.070	16	8166	0.087	16	8166	0.157
16:30 - 17:00	16	8166	0.047	**16**	**8166**	**0.135**	16	8166	0.182
17:00 - 17:30	16	8166	0.057	16	8166	0.109	16	8166	0.166
17:30 - 18:00	16	8166	0.041	16	8166	0.078	16	8166	0.119
18:00 - 18:30	15	8610	0.028	15	8610	0.050	15	8610	0.078
18:30 - 19:00	15	8610	0.068	15	8610	0.069	15	8610	0.137
19:00 - 19:30	7	7694	0.037	7	7694	0.065	7	7694	0.102
19:30 - 20:00	7	7694	0.035	7	7694	0.045	7	7694	0.080
20:00 - 20:30	7	7694	0.022	7	7694	0.056	7	7694	0.078
20:30 - 21:00	7	7694	0.028	7	7694	0.024	7	7694	0.052
21:00 - 21:30	1	22270	0.018	1	22270	0.009	1	22270	0.027
21:30 - 22:00	1	22270	0.013	1	22270	0.009	1	22270	0.022
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.082			2.017			4.099

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

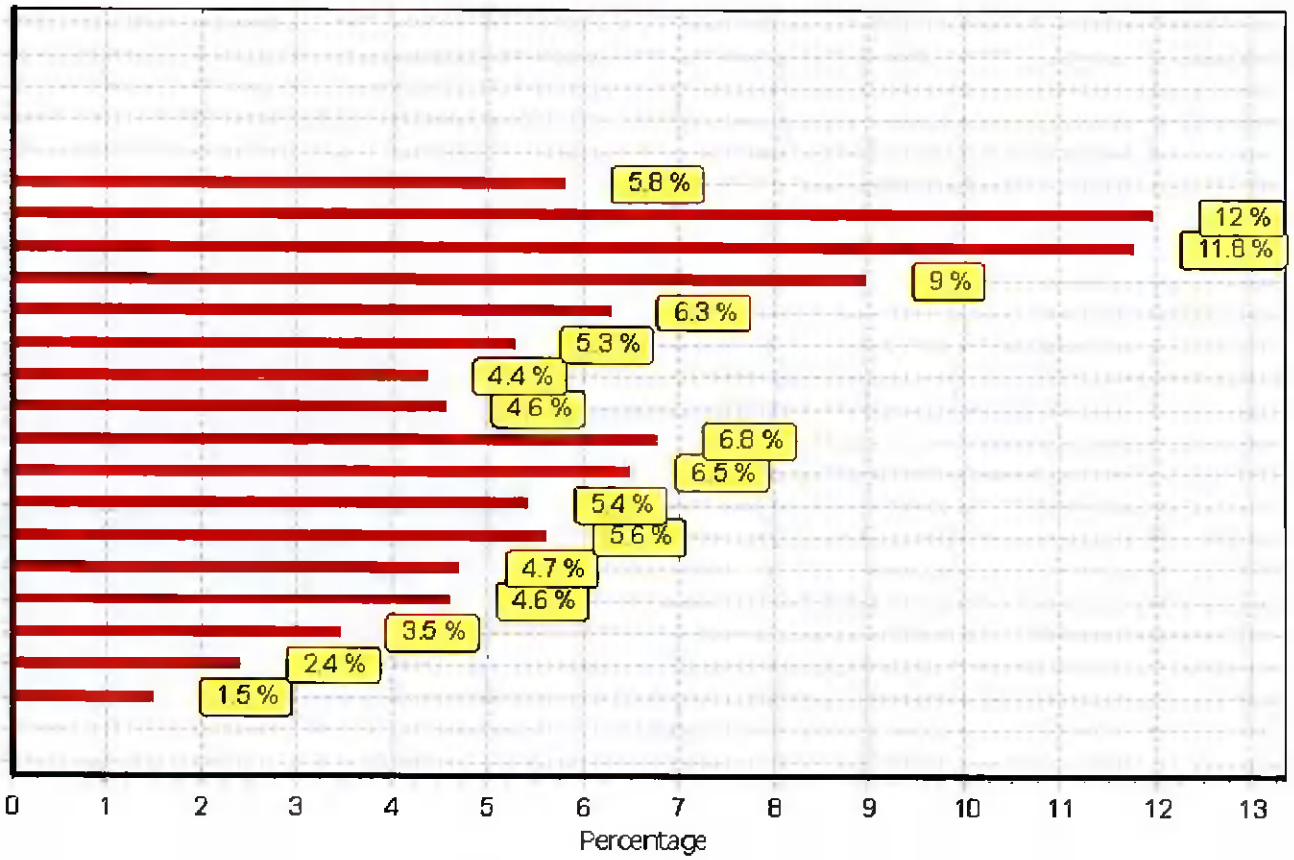
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

Parameter summary

Trip rate parameter range selected:	650 - 31000 (units: sqm)
Survey date date range:	01/01/13 - 19/05/21
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

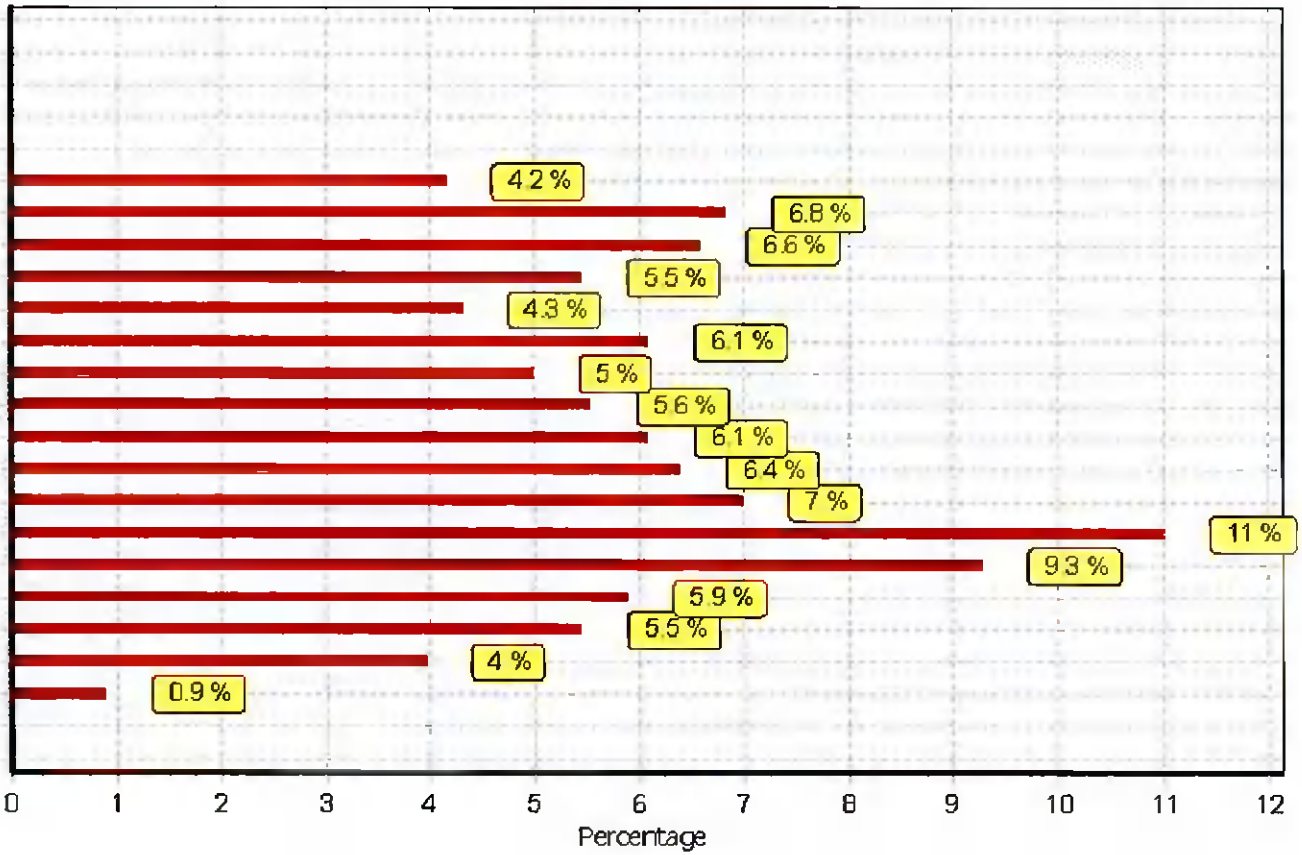
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.121	5.8
06:00-07:00	0.249	12.0
07:00-08:00	0.245	11.8
08:00-09:00	0.187	9.0
09:00-10:00	0.131	6.3
10:00-11:00	0.110	5.3
11:00-12:00	0.091	4.4
12:00-13:00	0.095	4.6
13:00-14:00	0.141	6.8
14:00-15:00	0.135	6.5
15:00-16:00	0.113	5.4
16:00-17:00	0.117	5.6
17:00-18:00	0.098	4.7
18:00-19:00	0.096	4.6
19:00-20:00	0.072	3.5
20:00-21:00	0.050	2.4
21:00-22:00	0.031	1.5
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) TOTAL VEHICLES

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.084	4.2
06:00-07:00	0.138	6.8
07:00-08:00	0.133	6.6
08:00-09:00	0.110	5.5
09:00-10:00	0.087	4.3
10:00-11:00	0.123	6.1
11:00-12:00	0.101	5.0
12:00-13:00	0.112	5.6
13:00-14:00	0.123	6.1
14:00-15:00	0.129	6.4
15:00-16:00	0.141	7.0
16:00-17:00	0.222	11.0
17:00-18:00	0.187	9.3
18:00-19:00	0.119	5.9
19:00-20:00	0.110	5.5
20:00-21:00	0.080	4.0
21:00-22:00	0.018	0.9
22:00-23:00		
23:00-24:00		



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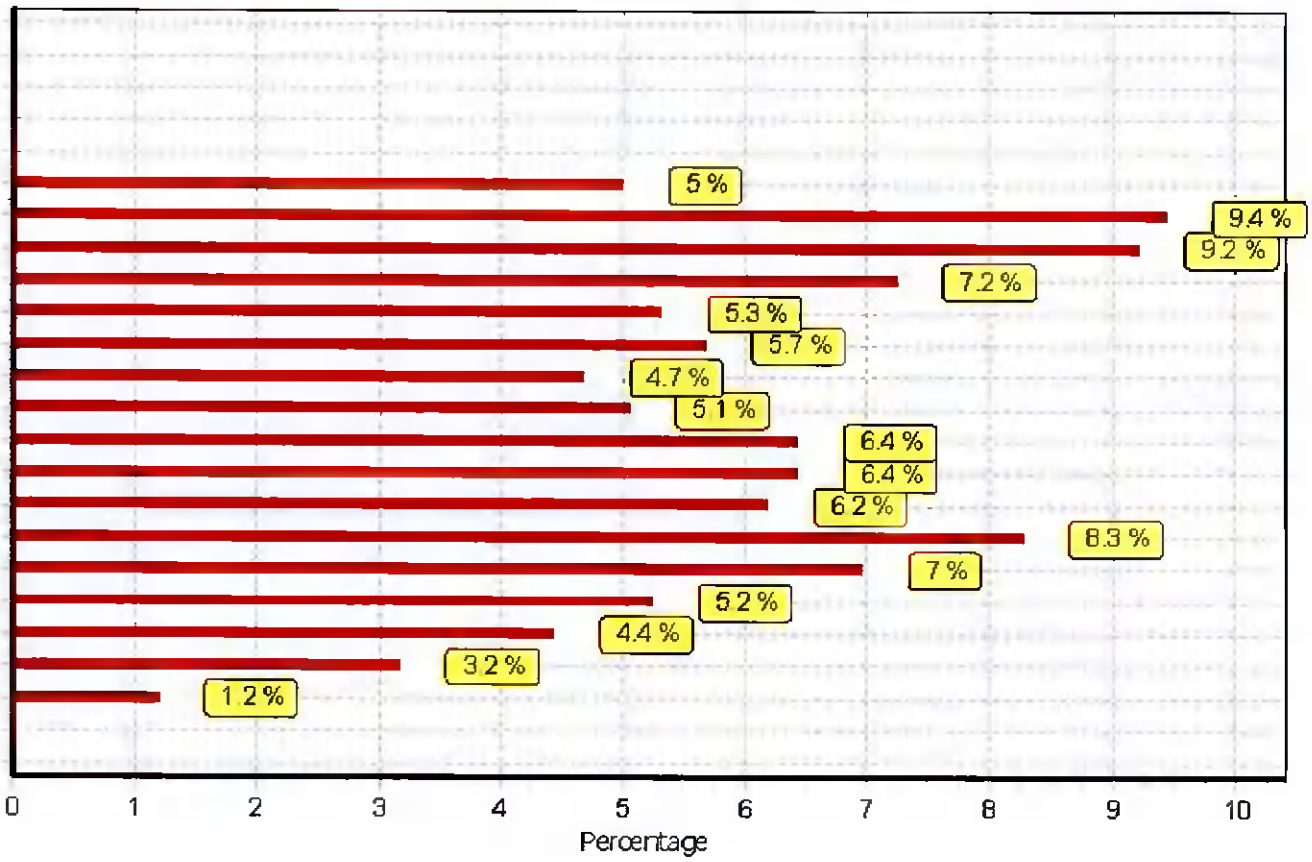
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.205	5.0
06:00-07:00	0.387	9.4
07:00-08:00	0.378	9.2
08:00-09:00	0.297	7.2
09:00-10:00	0.218	5.3
10:00-11:00	0.233	5.7
11:00-12:00	0.192	4.7
12:00-13:00	0.207	5.1
13:00-14:00	0.264	6.4
14:00-15:00	0.264	6.4
15:00-16:00	0.254	6.2
16:00-17:00	0.339	8.3
17:00-18:00	0.285	7.0
18:00-19:00	0.215	5.2
19:00-20:00	0.182	4.4
20:00-21:00	0.130	3.2
21:00-22:00	0.049	1.2
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

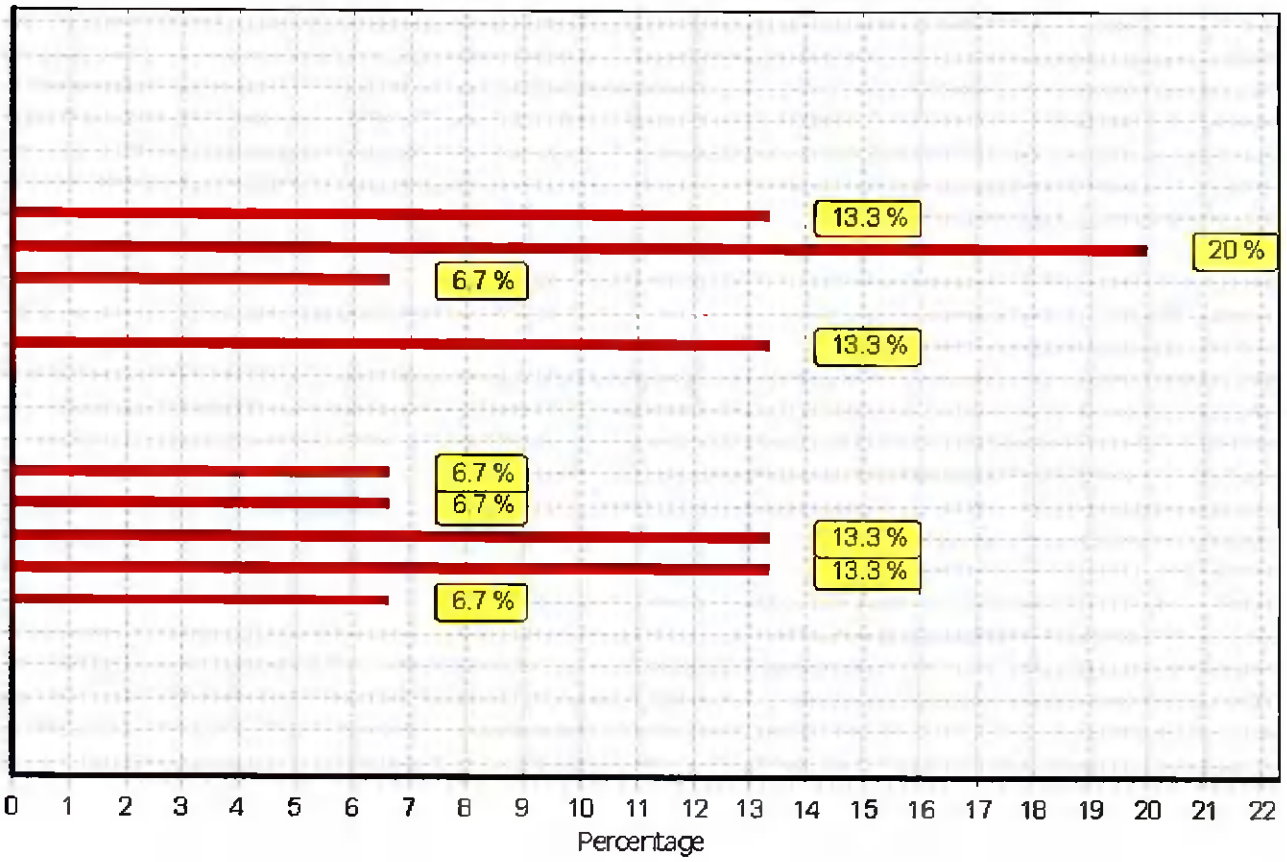
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
05:30 - 06:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
06:00 - 06:30	8	7337	0.002	8	7337	0.002	**8**	**7337**	**0.004**
06:30 - 07:00	8	7337	0.000	8	7337	0.000	8	7337	0.000
07:00 - 07:30	**16**	**8166**	**0.002**	16	8166	0.002	16	8166	0.004
07:30 - 08:00	16	8166	0.001	16	8166	0.002	16	8166	0.003
08:00 - 08:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
08:30 - 09:00	16	8166	0.001	16	8166	0.001	16	8166	0.002
09:00 - 09:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
09:30 - 10:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
10:00 - 10:30	16	8166	0.001	16	8166	0.001	16	8166	0.002
10:30 - 11:00	16	8166	0.001	16	8166	0.001	16	8166	0.002
11:00 - 11:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
11:30 - 12:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
12:00 - 12:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
12:30 - 13:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
13:00 - 13:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
13:30 - 14:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
14:00 - 14:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
14:30 - 15:00	16	8166	0.001	16	8166	0.001	16	8166	0.002
15:00 - 15:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
15:30 - 16:00	16	8166	0.001	16	8166	0.000	16	8166	0.001
16:00 - 16:30	16	8166	0.002	**16**	**8166**	**0.002**	16	8166	0.004
16:30 - 17:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
17:00 - 17:30	16	8166	0.001	16	8166	0.001	16	8166	0.002
17:30 - 18:00	16	8166	0.001	16	8166	0.001	16	8166	0.002
18:00 - 18:30	15	8610	0.001	15	8610	0.001	15	8610	0.002
18:30 - 19:00	15	8610	0.000	15	8610	0.000	15	8610	0.000
19:00 - 19:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
19:30 - 20:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
20:00 - 20:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
20:30 - 21:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
21:00 - 21:30	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:30 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.015			0.015			0.030

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 GRAPH - ARRIVALS 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) TAXIS

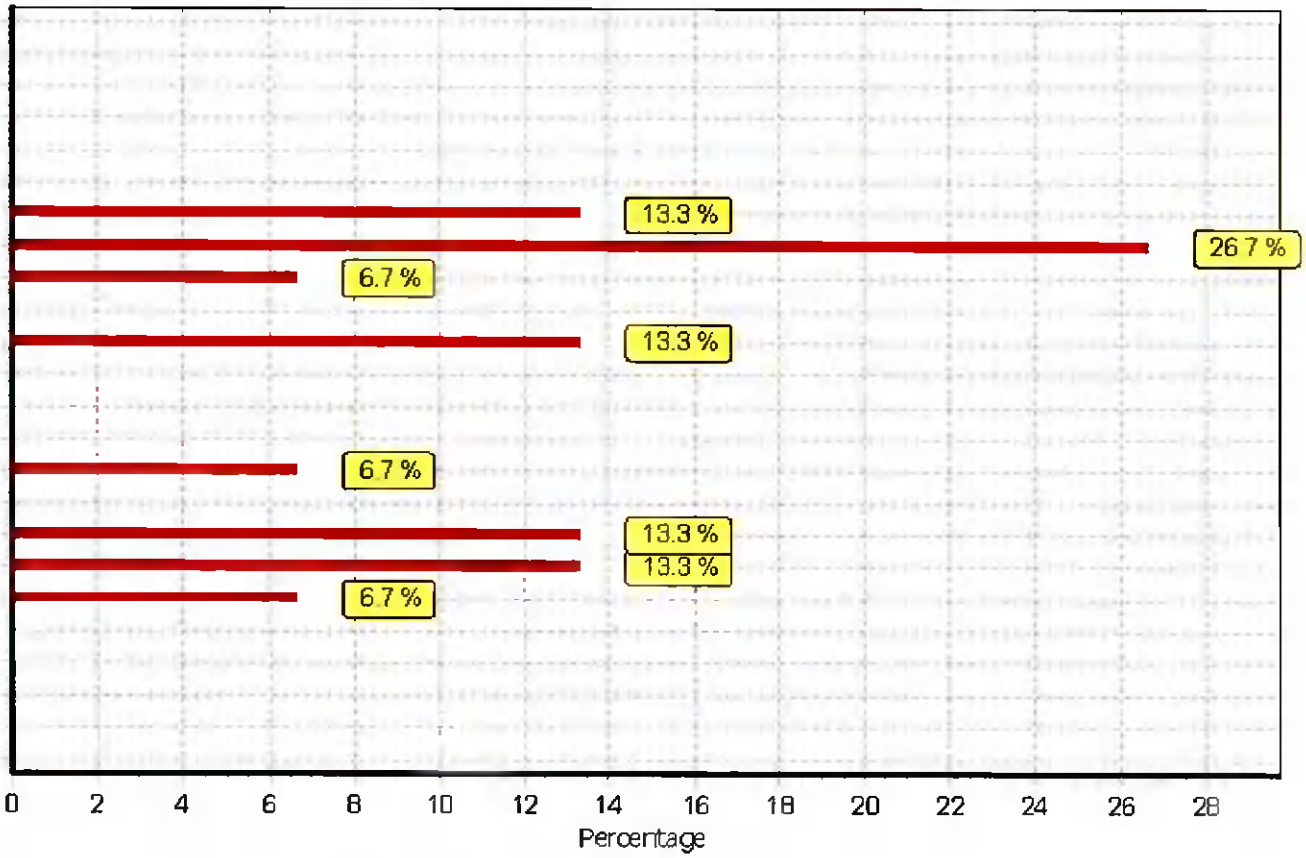
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.002	13.3
07:00-08:00	0.003	20.0
08:00-09:00	0.001	6.7
09:00-10:00		
10:00-11:00	0.002	13.3
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00	0.001	6.7
15:00-16:00	0.001	6.7
16:00-17:00	0.002	13.3
17:00-18:00	0.002	13.3
18:00-19:00	0.001	6.7
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

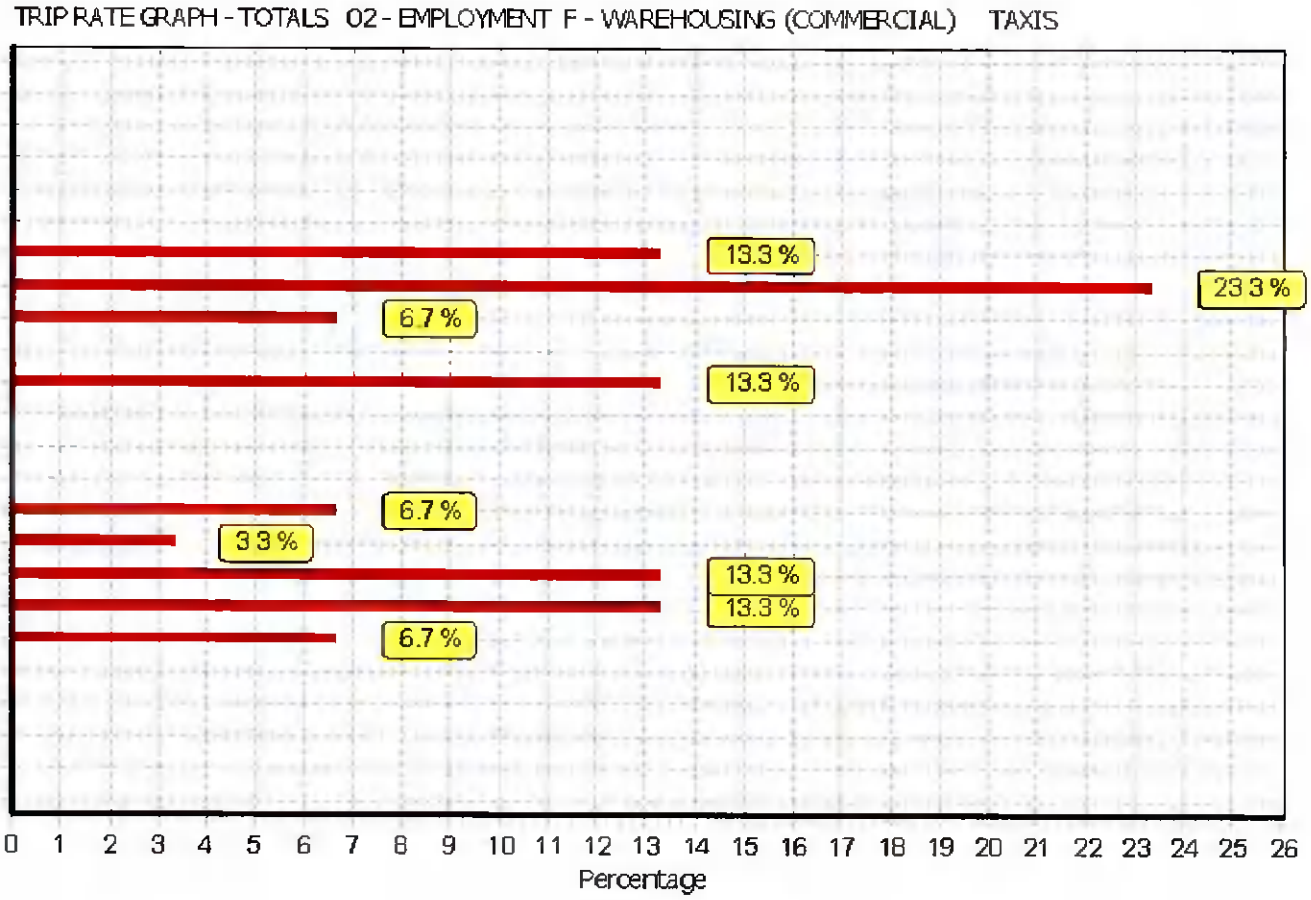
TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) TAXIS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.002	13.3
07:00-08:00	0.004	26.7
08:00-09:00	0.001	6.7
09:00-10:00		
10:00-11:00	0.002	13.3
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00	0.001	6.7
15:00-16:00		
16:00-17:00	0.002	13.3
17:00-18:00	0.002	13.3
18:00-19:00	0.001	6.7
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.004	13.3
07:00-08:00	0.007	23.3
08:00-09:00	0.002	6.7
09:00-10:00		
10:00-11:00	0.004	13.3
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00	0.002	6.7
15:00-16:00	0.001	3.3
16:00-17:00	0.004	13.3
17:00-18:00	0.004	13.3
18:00-19:00	0.002	6.7
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

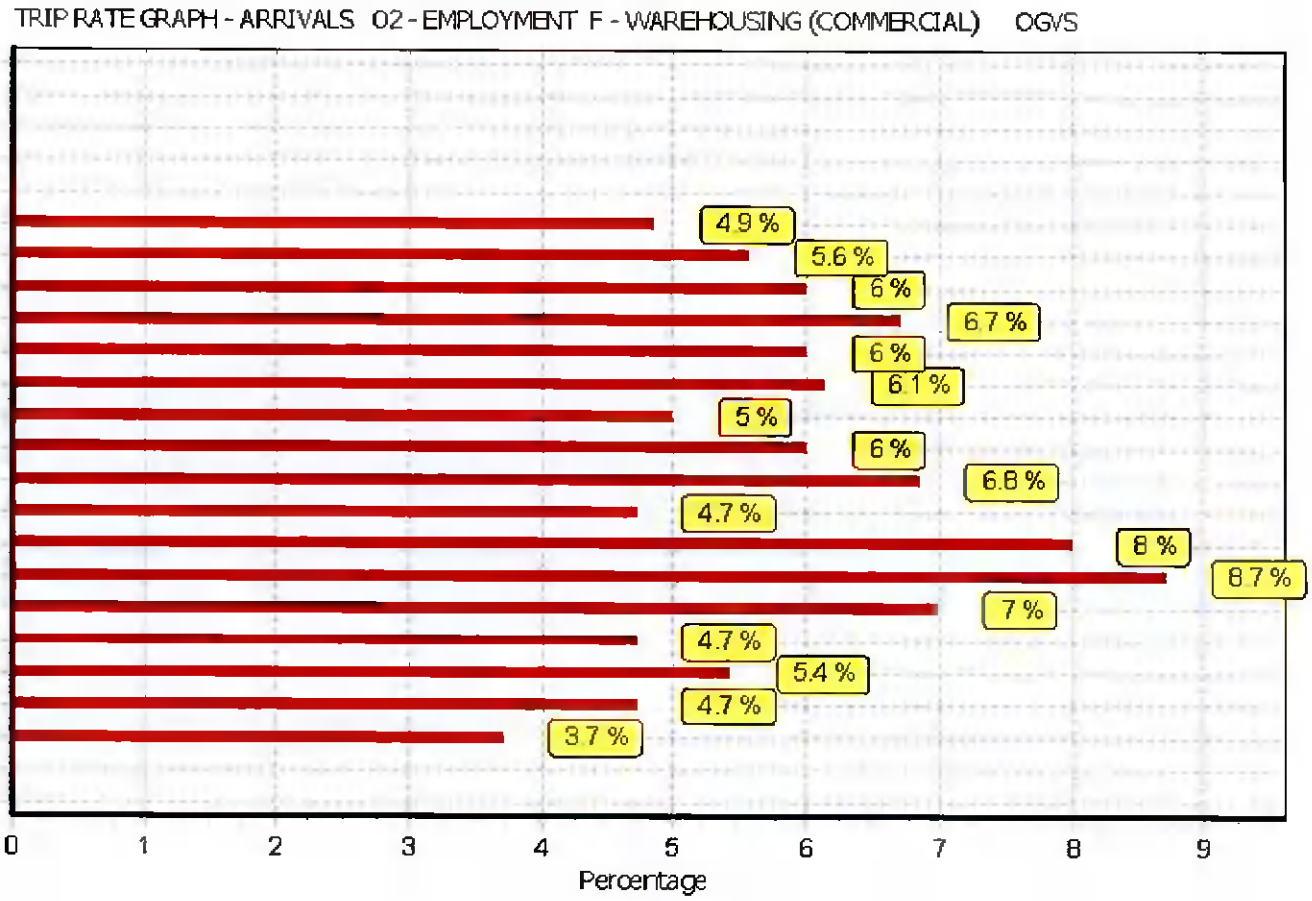
TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 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	7694	0.017	7	7694	0.017	7	7694	0.034
05:30 - 06:00	7	7694	0.017	7	7694	0.041	7	7694	0.058
06:00 - 06:30	8	7337	0.019	8	7337	0.037	8	7337	0.056
06:30 - 07:00	8	7337	0.020	**8**	**7337**	**0.043**	8	7337	0.063
07:00 - 07:30	16	8166	0.025	16	8166	0.024	16	8166	0.049
07:30 - 08:00	16	8166	0.017	16	8166	0.027	16	8166	0.044
08:00 - 08:30	16	8166	0.021	16	8166	0.028	16	8166	0.049
08:30 - 09:00	16	8166	0.026	16	8166	0.031	16	8166	0.057
09:00 - 09:30	16	8166	0.021	16	8166	0.023	16	8166	0.044
09:30 - 10:00	16	8166	0.021	16	8166	0.021	16	8166	0.042
10:00 - 10:30	16	8166	0.026	16	8166	0.025	16	8166	0.051
10:30 - 11:00	16	8166	0.017	16	8166	0.025	16	8166	0.042
11:00 - 11:30	16	8166	0.022	16	8166	0.018	16	8166	0.040
11:30 - 12:00	16	8166	0.013	16	8166	0.015	16	8166	0.028
12:00 - 12:30	16	8166	0.020	16	8166	0.011	16	8166	0.031
12:30 - 13:00	16	8166	0.022	16	8166	0.015	16	8166	0.037
13:00 - 13:30	16	8166	0.017	16	8166	0.024	16	8166	0.041
13:30 - 14:00	16	8166	0.031	16	8166	0.013	16	8166	0.044
14:00 - 14:30	16	8166	0.013	16	8166	0.013	16	8166	0.026
14:30 - 15:00	16	8166	0.020	16	8166	0.021	16	8166	0.041
15:00 - 15:30	16	8166	0.024	16	8166	0.021	16	8166	0.045
15:30 - 16:00	16	8166	0.032	16	8166	0.018	16	8166	0.050
16:00 - 16:30	**16**	**8166**	**0.037**	16	8166	0.029	**16**	**8166**	**0.066**
16:30 - 17:00	16	8166	0.024	16	8166	0.021	16	8166	0.045
17:00 - 17:30	16	8166	0.027	16	8166	0.015	16	8166	0.042
17:30 - 18:00	16	8166	0.022	16	8166	0.024	16	8166	0.046
18:00 - 18:30	15	8610	0.011	15	8610	0.014	15	8610	0.025
18:30 - 19:00	15	8610	0.022	15	8610	0.012	15	8610	0.034
19:00 - 19:30	7	7694	0.019	7	7694	0.024	7	7694	0.043
19:30 - 20:00	7	7694	0.019	7	7694	0.026	7	7694	0.045
20:00 - 20:30	7	7694	0.020	7	7694	0.035	7	7694	0.055
20:30 - 21:00	7	7694	0.013	7	7694	0.019	7	7694	0.032
21:00 - 21:30	1	22270	0.013	1	22270	0.004	1	22270	0.017
21:30 - 22:00	1	22270	0.013	1	22270	0.000	1	22270	0.013
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.701			0.734			1.435

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.*

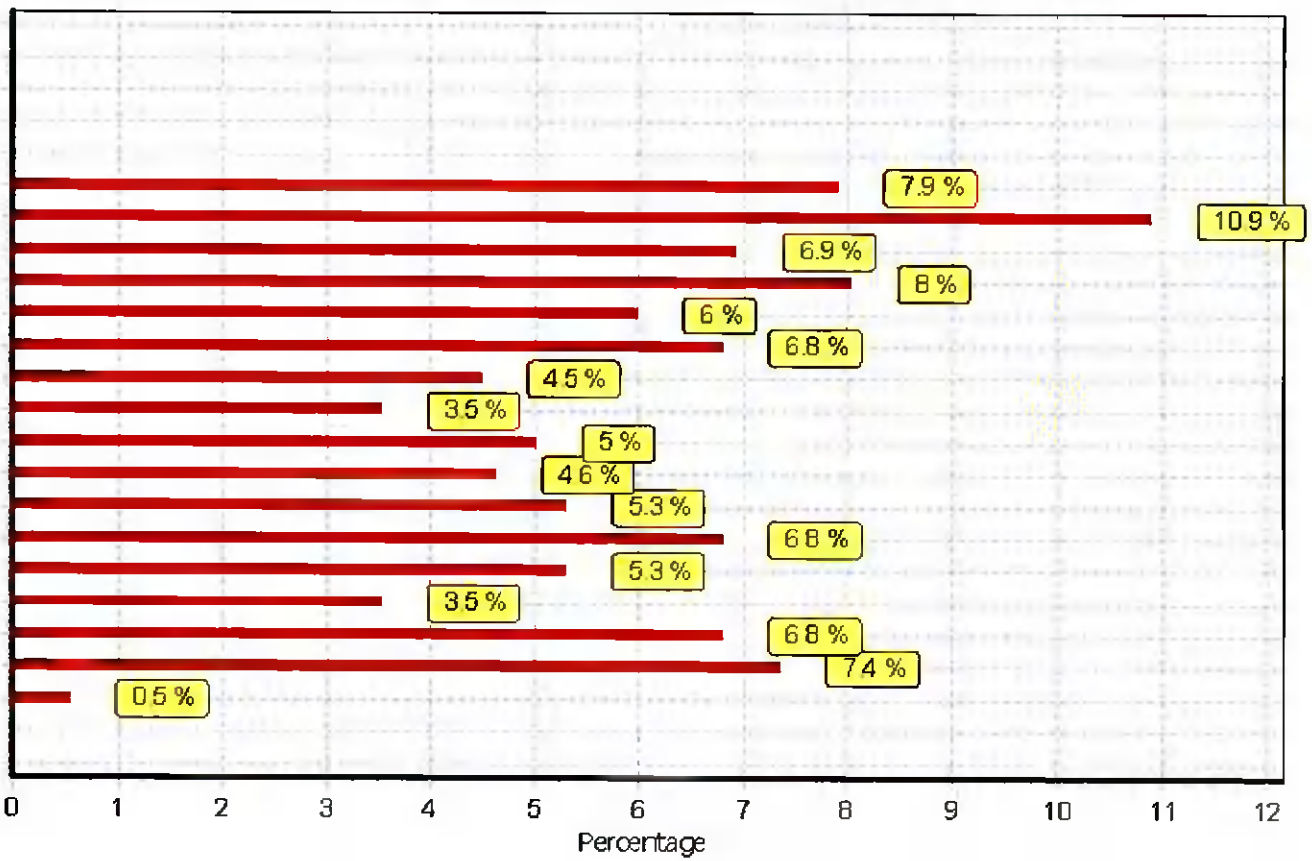
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.034	4.9
06:00-07:00	0.039	5.6
07:00-08:00	0.042	6.0
08:00-09:00	0.047	6.7
09:00-10:00	0.042	6.0
10:00-11:00	0.043	6.1
11:00-12:00	0.035	5.0
12:00-13:00	0.042	6.0
13:00-14:00	0.048	6.8
14:00-15:00	0.033	4.7
15:00-16:00	0.056	8.0
16:00-17:00	0.061	8.7
17:00-18:00	0.049	7.0
18:00-19:00	0.033	4.7
19:00-20:00	0.038	5.4
20:00-21:00	0.033	4.7
21:00-22:00	0.026	3.7
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) OGVS

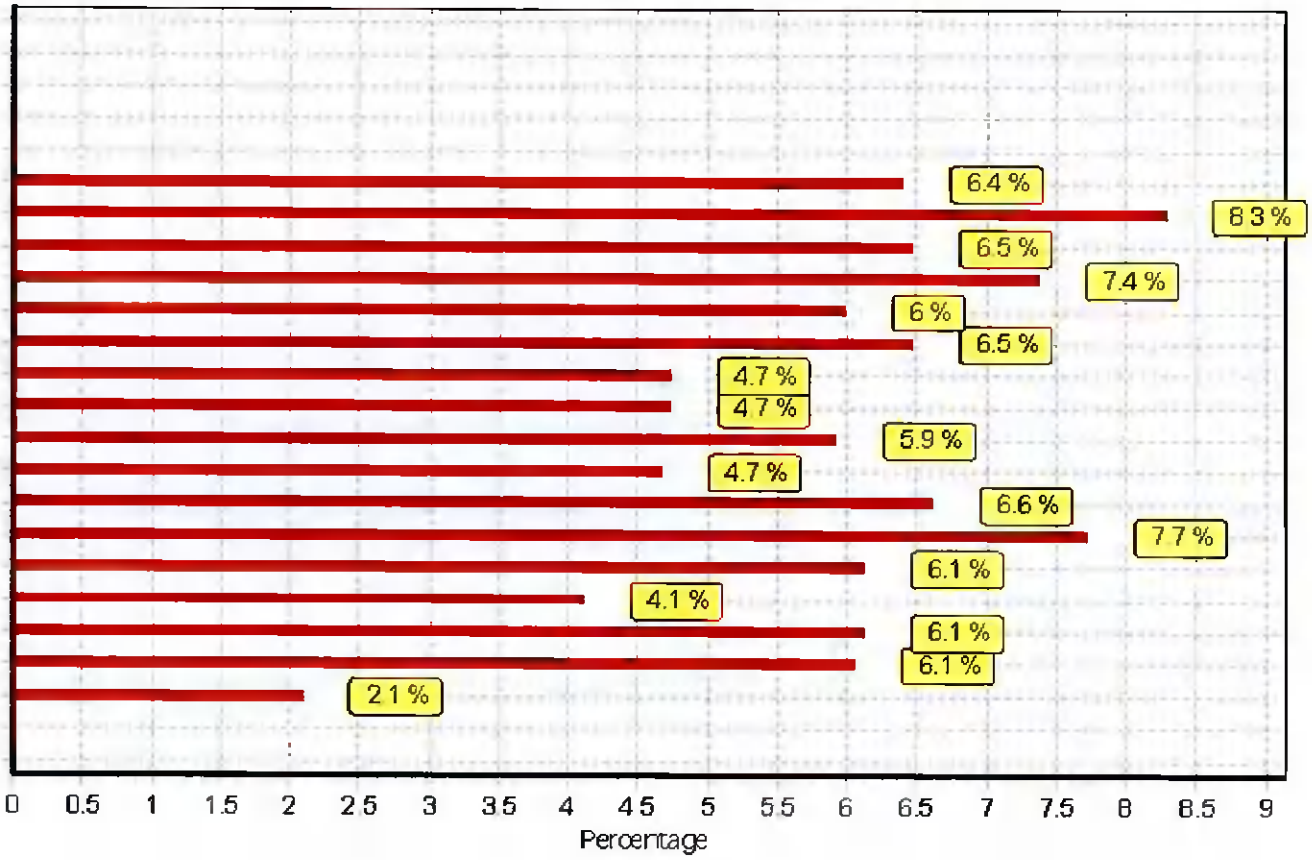
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.058	7.9
06:00-07:00	0.080	10.9
07:00-08:00	0.051	6.9
08:00-09:00	0.059	8.0
09:00-10:00	0.044	6.0
10:00-11:00	0.050	6.8
11:00-12:00	0.033	4.5
12:00-13:00	0.026	3.5
13:00-14:00	0.037	5.0
14:00-15:00	0.034	4.6
15:00-16:00	0.039	5.3
16:00-17:00	0.050	6.8
17:00-18:00	0.039	5.3
18:00-19:00	0.026	3.5
19:00-20:00	0.050	6.8
20:00-21:00	0.054	7.4
21:00-22:00	0.004	0.5
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) OGVS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.092	6.4
06:00-07:00	0.119	8.3
07:00-08:00	0.093	6.5
08:00-09:00	0.106	7.4
09:00-10:00	0.086	6.0
10:00-11:00	0.093	6.5
11:00-12:00	0.068	4.7
12:00-13:00	0.068	4.7
13:00-14:00	0.085	5.9
14:00-15:00	0.067	4.7
15:00-16:00	0.095	6.6
16:00-17:00	0.111	7.7
17:00-18:00	0.088	6.1
18:00-19:00	0.059	4.1
19:00-20:00	0.088	6.1
20:00-21:00	0.087	6.1
21:00-22:00	0.030	2.1
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

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

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

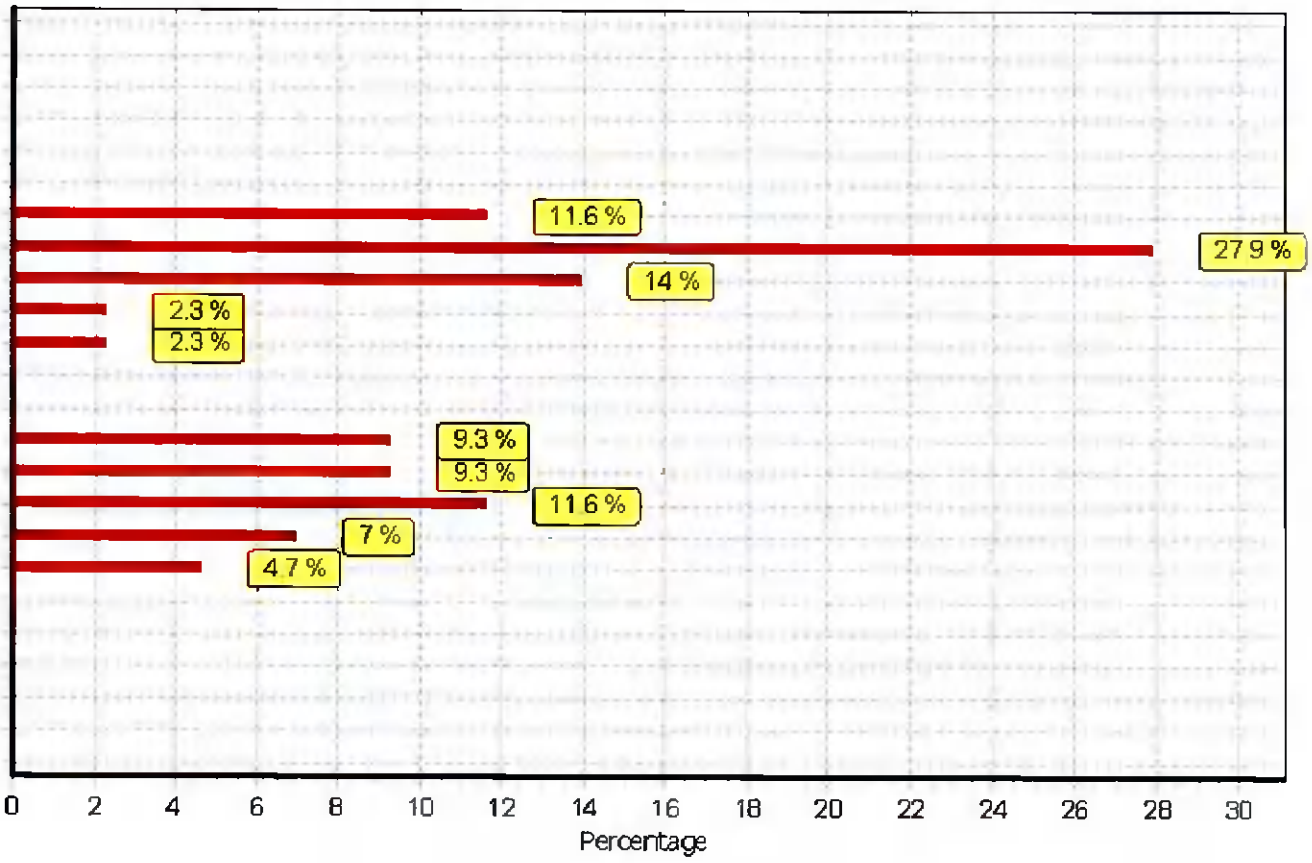
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
05:30 - 06:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
06:00 - 06:30	8	7337	0.000	8	7337	0.000	8	7337	0.000
06:30 - 07:00	8	7337	0.005	8	7337	0.000	8	7337	0.005
07:00 - 07:30	16	8166	0.003	16	8166	0.001	16	8166	0.004
07:30 - 08:00	**16**	**8166**	**0.009**	16	8166	0.000	**16**	**8166**	**0.009**
08:00 - 08:30	16	8166	0.004	16	8166	0.000	16	8166	0.004
08:30 - 09:00	16	8166	0.002	16	8166	0.001	16	8166	0.003
09:00 - 09:30	16	8166	0.001	16	8166	0.000	16	8166	0.001
09:30 - 10:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
10:00 - 10:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
10:30 - 11:00	16	8166	0.001	16	8166	0.000	16	8166	0.001
11:00 - 11:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
11:30 - 12:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
12:00 - 12:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
12:30 - 13:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
13:00 - 13:30	16	8166	0.002	16	8166	0.000	16	8166	0.002
13:30 - 14:00	16	8166	0.002	16	8166	0.000	16	8166	0.002
14:00 - 14:30	16	8166	0.002	16	8166	0.000	16	8166	0.002
14:30 - 15:00	16	8166	0.002	16	8166	0.002	16	8166	0.004
15:00 - 15:30	16	8166	0.003	16	8166	0.002	16	8166	0.005
15:30 - 16:00	16	8166	0.002	16	8166	0.002	16	8166	0.004
16:00 - 16:30	16	8166	0.000	16	8166	0.002	16	8166	0.002
16:30 - 17:00	16	8166	0.003	**16**	**8166**	**0.006**	16	8166	0.009
17:00 - 17:30	16	8166	0.001	16	8166	0.006	16	8166	0.007
17:30 - 18:00	16	8166	0.001	16	8166	0.002	16	8166	0.003
18:00 - 18:30	15	8610	0.000	15	8610	0.002	15	8610	0.002
18:30 - 19:00	15	8610	0.000	15	8610	0.005	15	8610	0.005
19:00 - 19:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
19:30 - 20:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
20:00 - 20:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
20:30 - 21:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
21:00 - 21:30	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:30 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.043			0.031			0.074

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 GRAPH - ARRIVALS 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) CYCLISTS

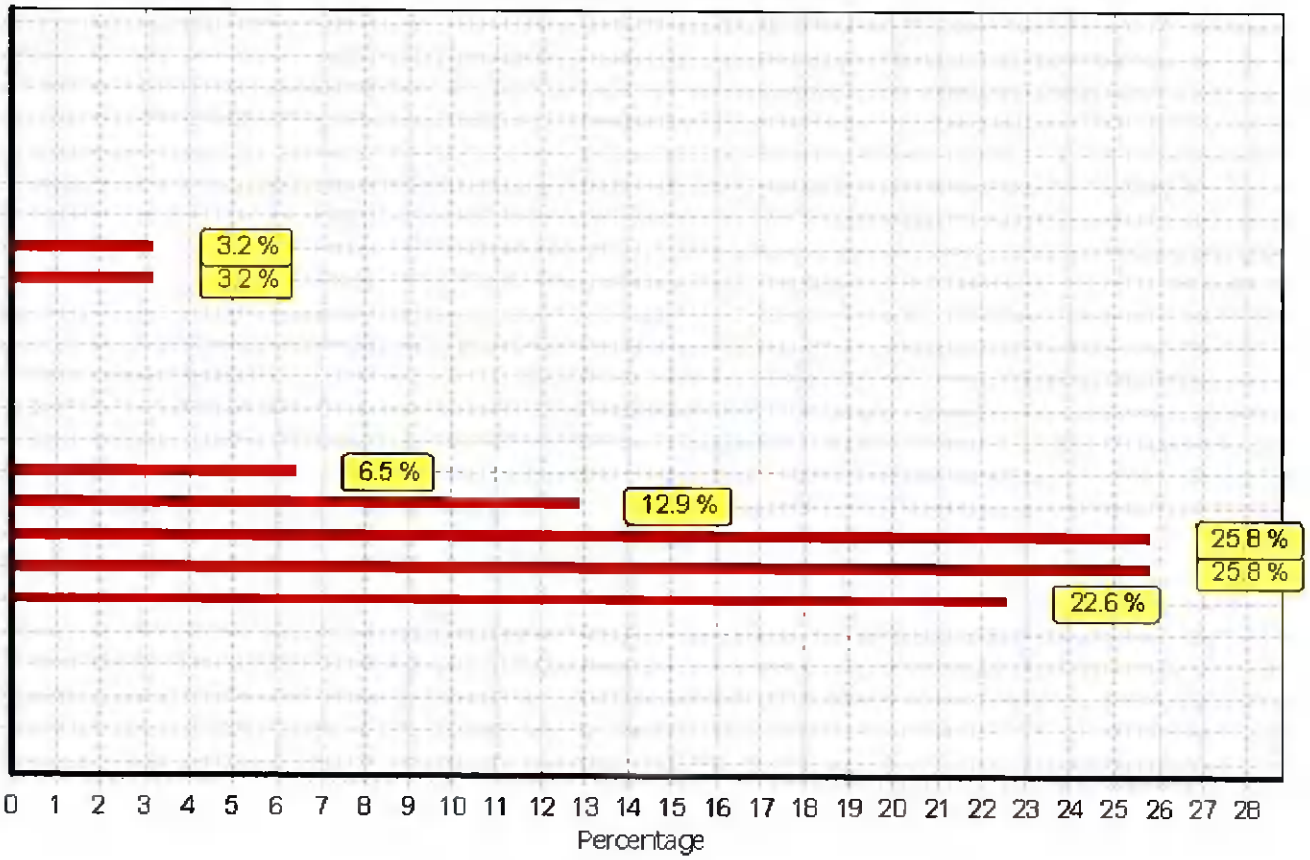
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.005	11.6
07:00-08:00	0.012	27.9
08:00-09:00	0.006	14.0
09:00-10:00	0.001	2.3
10:00-11:00	0.001	2.3
11:00-12:00		
12:00-13:00		
13:00-14:00	0.004	9.3
14:00-15:00	0.004	9.3
15:00-16:00	0.005	11.6
16:00-17:00	0.003	7.0
17:00-18:00	0.002	4.7
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

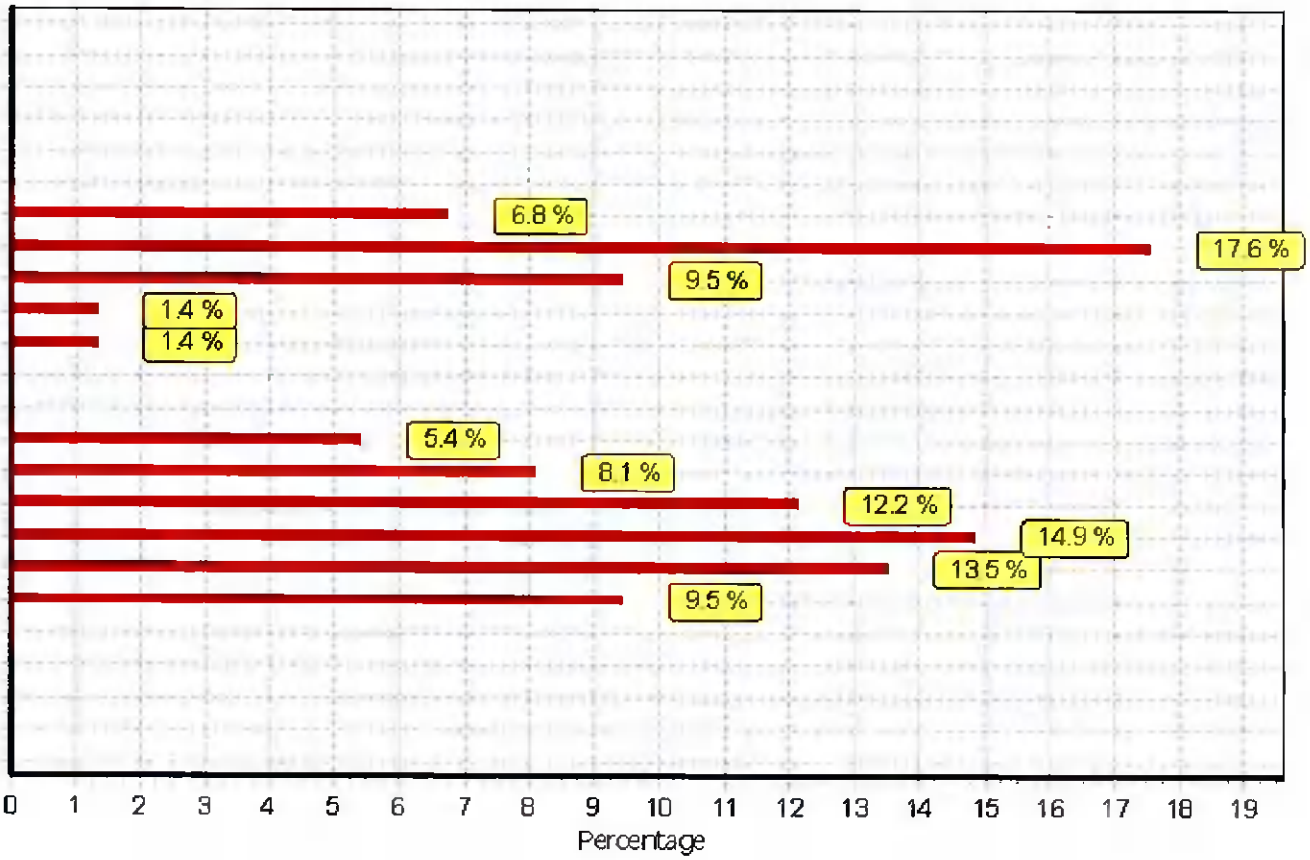
TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) CYCLISTS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.001	3.2
08:00-09:00	0.001	3.2
09:00-10:00		
10:00-11:00		
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00	0.002	6.5
15:00-16:00	0.004	12.9
16:00-17:00	0.008	25.8
17:00-18:00	0.008	25.8
18:00-19:00	0.007	22.6
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.005	6.8
07:00-08:00	0.013	17.6
08:00-09:00	0.007	9.5
09:00-10:00	0.001	1.4
10:00-11:00	0.001	1.4
11:00-12:00		
12:00-13:00		
13:00-14:00	0.004	5.4
14:00-15:00	0.006	8.1
15:00-16:00	0.009	12.2
16:00-17:00	0.011	14.9
17:00-18:00	0.010	13.5
18:00-19:00	0.007	9.5
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

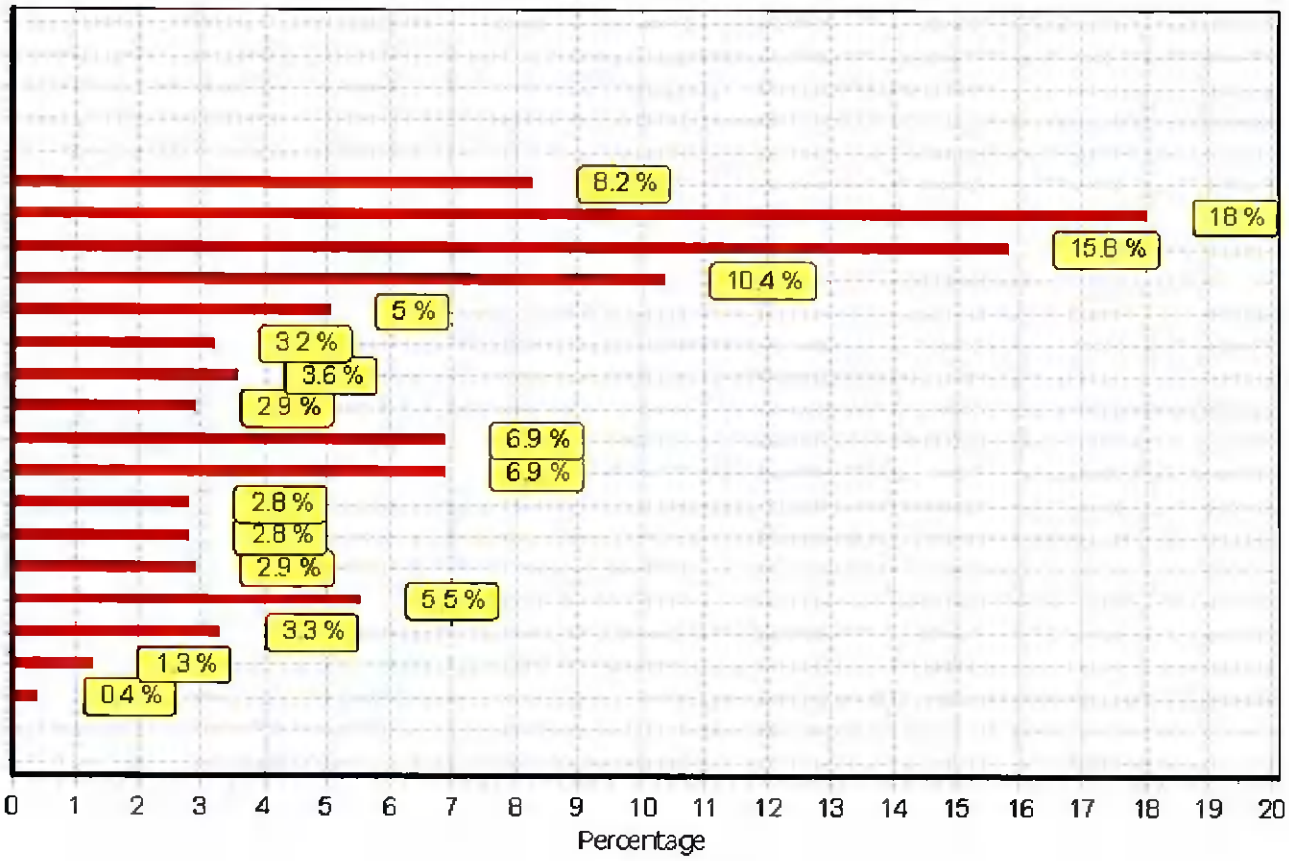
TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 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	7694	0.035	7	7694	0.013	7	7694	0.048
05:30 - 06:00	7	7694	0.050	7	7694	0.011	7	7694	0.061
06:00 - 06:30	8	7337	0.051	8	7337	0.024	8	7337	0.075
06:30 - 07:00	**8**	**7337**	**0.135**	8	7337	0.017	**8**	**7337**	**0.152**
07:00 - 07:30	16	8166	0.041	16	8166	0.052	16	8166	0.093
07:30 - 08:00	16	8166	0.122	16	8166	0.015	16	8166	0.137
08:00 - 08:30	16	8166	0.050	16	8166	0.011	16	8166	0.061
08:30 - 09:00	16	8166	0.057	16	8166	0.012	16	8166	0.069
09:00 - 09:30	16	8166	0.034	16	8166	0.017	16	8166	0.051
09:30 - 10:00	16	8166	0.018	16	8166	0.008	16	8166	0.026
10:00 - 10:30	16	8166	0.015	16	8166	0.015	16	8166	0.030
10:30 - 11:00	16	8166	0.018	16	8166	0.017	16	8166	0.035
11:00 - 11:30	16	8166	0.016	16	8166	0.015	16	8166	0.031
11:30 - 12:00	16	8166	0.021	16	8166	0.015	16	8166	0.036
12:00 - 12:30	16	8166	0.012	16	8166	0.018	16	8166	0.030
12:30 - 13:00	16	8166	0.018	16	8166	0.031	16	8166	0.049
13:00 - 13:30	16	8166	0.035	16	8166	0.041	16	8166	0.076
13:30 - 14:00	16	8166	0.036	16	8166	0.019	16	8166	0.055
14:00 - 14:30	16	8166	0.034	16	8166	0.028	16	8166	0.062
14:30 - 15:00	16	8166	0.037	16	8166	0.037	16	8166	0.074
15:00 - 15:30	16	8166	0.016	16	8166	0.047	16	8166	0.063
15:30 - 16:00	16	8166	0.013	16	8166	0.030	16	8166	0.043
16:00 - 16:30	16	8166	0.015	16	8166	0.044	16	8166	0.059
16:30 - 17:00	16	8166	0.014	**16**	**8166**	**0.098**	16	8166	0.112
17:00 - 17:30	16	8166	0.018	16	8166	0.085	16	8166	0.103
17:30 - 18:00	16	8166	0.012	16	8166	0.051	16	8166	0.063
18:00 - 18:30	15	8610	0.014	15	8610	0.035	15	8610	0.049
18:30 - 19:00	15	8610	0.043	15	8610	0.053	15	8610	0.096
19:00 - 19:30	7	7694	0.019	7	7694	0.041	7	7694	0.060
19:30 - 20:00	7	7694	0.015	7	7694	0.017	7	7694	0.032
20:00 - 20:30	7	7694	0.002	7	7694	0.020	7	7694	0.022
20:30 - 21:00	7	7694	0.011	7	7694	0.004	7	7694	0.015
21:00 - 21:30	1	22270	0.004	1	22270	0.004	1	22270	0.008
21:30 - 22:00	1	22270	0.000	1	22270	0.009	1	22270	0.009
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.031			0.954			1.985

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.*

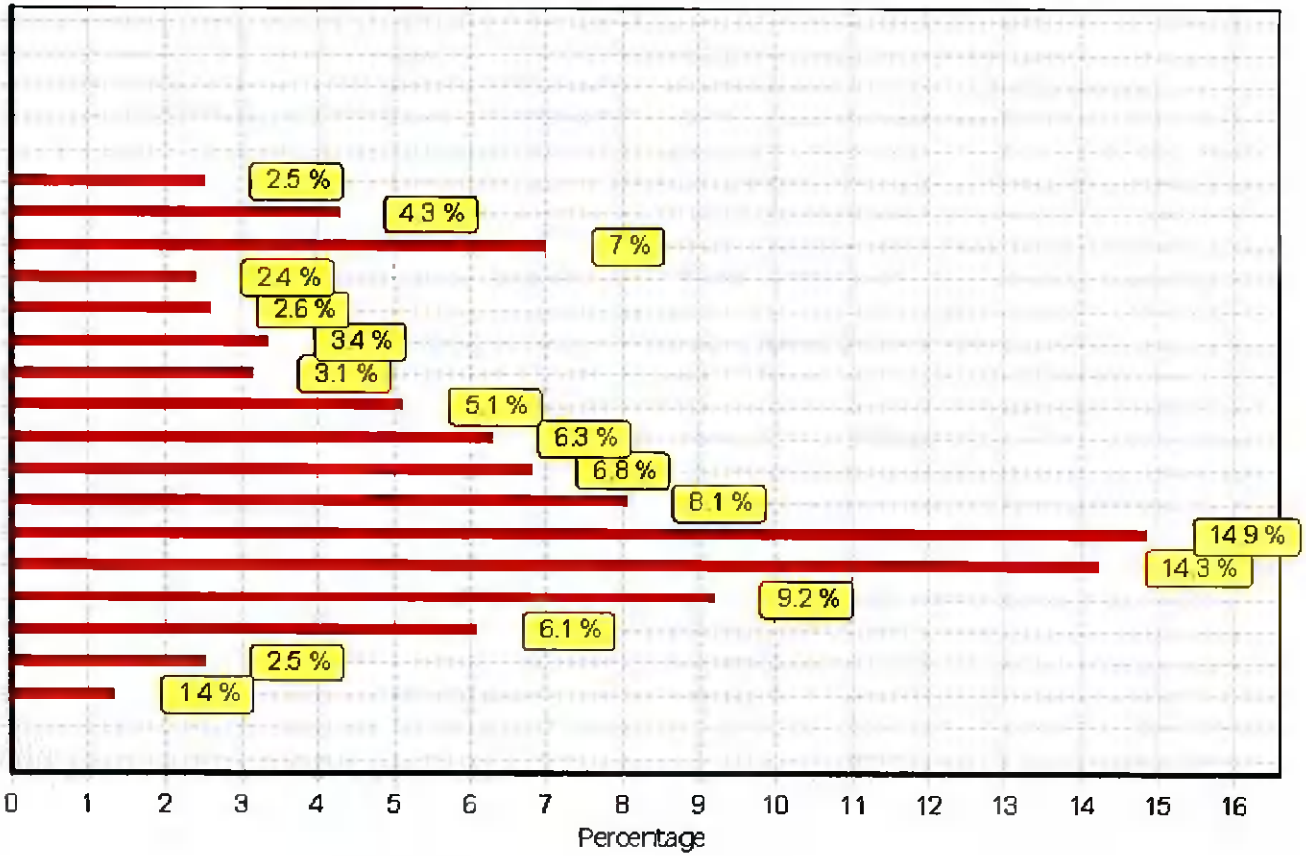
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.085	8.2
06:00-07:00	0.186	18.0
07:00-08:00	0.163	15.8
08:00-09:00	0.107	10.4
09:00-10:00	0.052	5.0
10:00-11:00	0.033	3.2
11:00-12:00	0.037	3.6
12:00-13:00	0.030	2.9
13:00-14:00	0.071	6.9
14:00-15:00	0.071	6.9
15:00-16:00	0.029	2.8
16:00-17:00	0.029	2.8
17:00-18:00	0.030	2.9
18:00-19:00	0.057	5.5
19:00-20:00	0.034	3.3
20:00-21:00	0.013	1.3
21:00-22:00	0.004	0.4
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) CARS

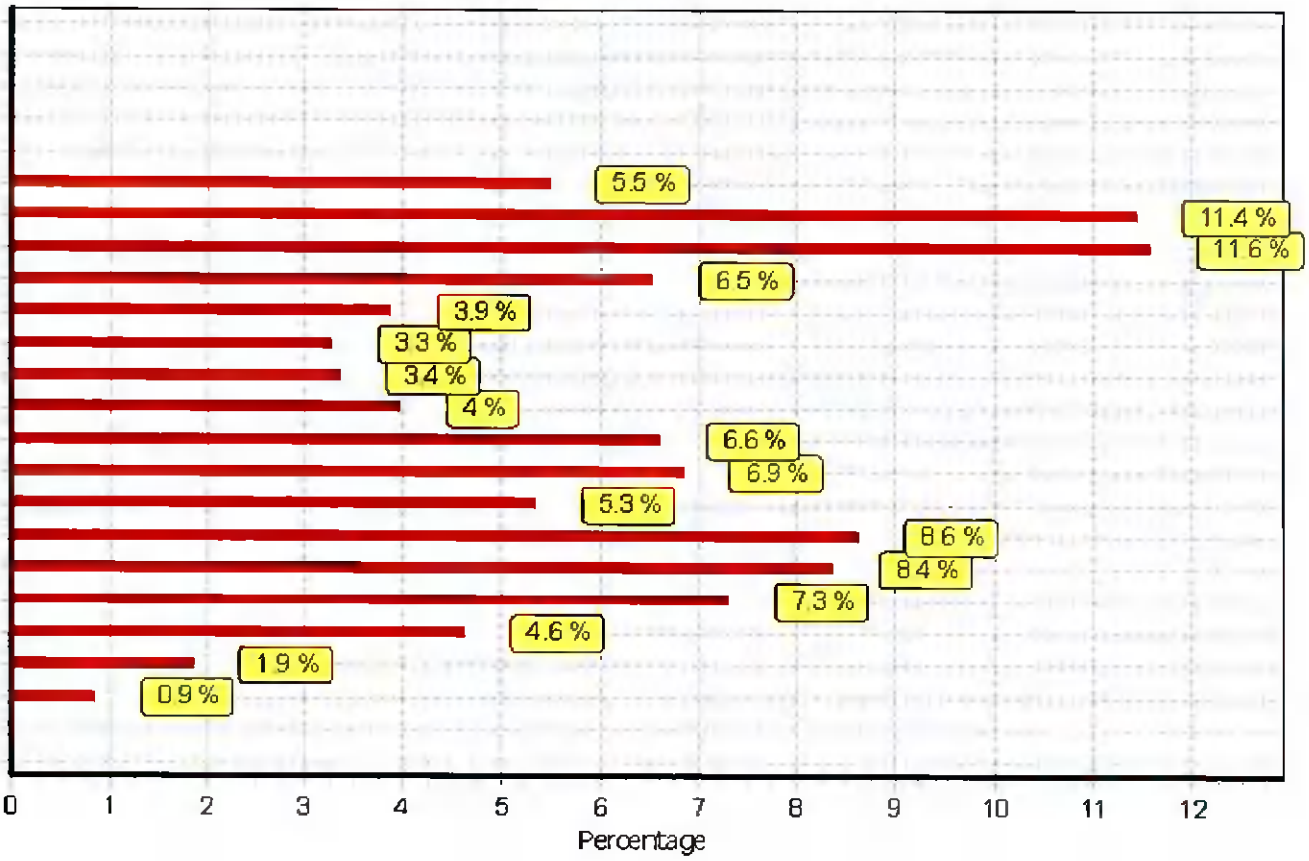
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.024	2.5
06:00-07:00	0.041	4.3
07:00-08:00	0.067	7.0
08:00-09:00	0.023	2.4
09:00-10:00	0.025	2.6
10:00-11:00	0.032	3.4
11:00-12:00	0.030	3.1
12:00-13:00	0.049	5.1
13:00-14:00	0.060	6.3
14:00-15:00	0.065	6.8
15:00-16:00	0.077	8.1
16:00-17:00	0.142	14.9
17:00-18:00	0.136	14.3
18:00-19:00	0.088	9.2
19:00-20:00	0.058	6.1
20:00-21:00	0.024	2.5
21:00-22:00	0.013	1.4
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) CARS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.109	5.5
06:00-07:00	0.227	11.4
07:00-08:00	0.230	11.6
08:00-09:00	0.130	6.5
09:00-10:00	0.077	3.9
10:00-11:00	0.065	3.3
11:00-12:00	0.067	3.4
12:00-13:00	0.079	4.0
13:00-14:00	0.131	6.6
14:00-15:00	0.136	6.9
15:00-16:00	0.106	5.3
16:00-17:00	0.171	8.6
17:00-18:00	0.166	8.4
18:00-19:00	0.145	7.3
19:00-20:00	0.092	4.6
20:00-21:00	0.037	1.9
21:00-22:00	0.017	0.9
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

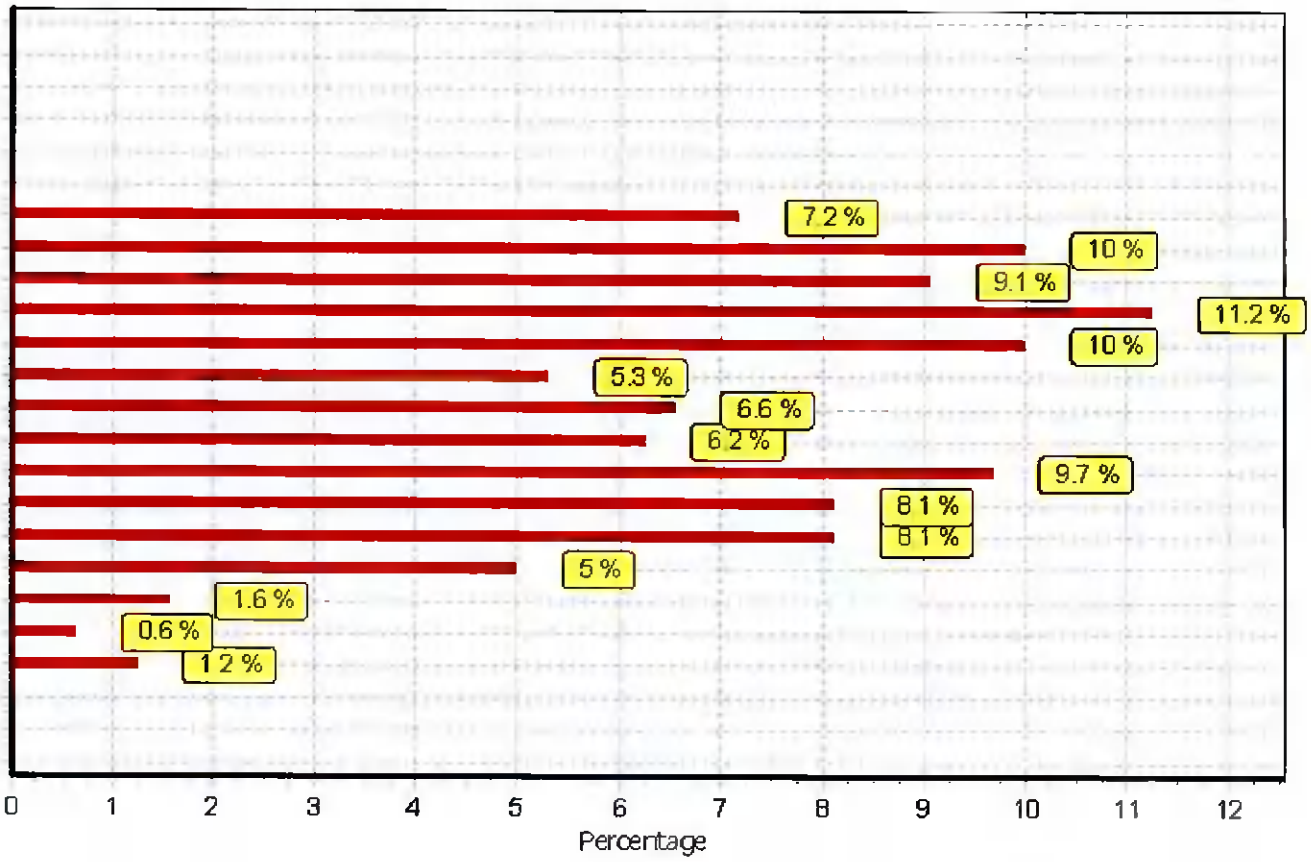
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	7	7694	0.000	7	7694	0.002	7	7694	0.002
05:30 - 06:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
06:00 - 06:30	8	7337	0.009	8	7337	0.010	8	7337	0.019
06:30 - 07:00	8	7337	0.014	8	7337	0.005	8	7337	0.019
07:00 - 07:30	16	8166	0.010	16	8166	0.004	16	8166	0.014
07:30 - 08:00	**16**	**8166**	**0.022**	16	8166	0.007	16	8166	0.029
08:00 - 08:30	16	8166	0.013	16	8166	0.013	16	8166	0.026
08:30 - 09:00	16	8166	0.016	16	8166	0.013	16	8166	0.029
09:00 - 09:30	16	8166	0.018	16	8166	0.008	16	8166	0.026
09:30 - 10:00	16	8166	0.018	16	8166	0.011	16	8166	0.029
10:00 - 10:30	16	8166	0.016	16	8166	0.017	16	8166	0.033
10:30 - 11:00	16	8166	0.016	**16**	**8166**	**0.022**	**16**	**8166**	**0.038**
11:00 - 11:30	16	8166	0.006	16	8166	0.016	16	8166	0.022
11:30 - 12:00	16	8166	0.011	16	8166	0.022	16	8166	0.033
12:00 - 12:30	16	8166	0.012	16	8166	0.016	16	8166	0.028
12:30 - 13:00	16	8166	0.009	16	8166	0.019	16	8166	0.028
13:00 - 13:30	16	8166	0.010	16	8166	0.013	16	8166	0.023
13:30 - 14:00	16	8166	0.010	16	8166	0.012	16	8166	0.022
14:00 - 14:30	16	8166	0.010	16	8166	0.015	16	8166	0.025
14:30 - 15:00	16	8166	0.021	16	8166	0.013	16	8166	0.034
15:00 - 15:30	16	8166	0.011	16	8166	0.015	16	8166	0.026
15:30 - 16:00	16	8166	0.015	16	8166	0.011	16	8166	0.026
16:00 - 16:30	16	8166	0.018	16	8166	0.011	16	8166	0.029
16:30 - 17:00	16	8166	0.008	16	8166	0.012	16	8166	0.020
17:00 - 17:30	16	8166	0.011	16	8166	0.007	16	8166	0.018
17:30 - 18:00	16	8166	0.005	16	8166	0.003	16	8166	0.008
18:00 - 18:30	15	8610	0.002	15	8610	0.001	15	8610	0.003
18:30 - 19:00	15	8610	0.003	15	8610	0.004	15	8610	0.007
19:00 - 19:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
19:30 - 20:00	7	7694	0.002	7	7694	0.002	7	7694	0.004
20:00 - 20:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
20:30 - 21:00	7	7694	0.004	7	7694	0.002	7	7694	0.006
21:00 - 21:30	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:30 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.320			0.306			0.626

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.*

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00	0.023	7.2
07:00-08:00	0.032	10.0
08:00-09:00	0.029	9.1
09:00-10:00	0.036	11.2
10:00-11:00	0.032	10.0
11:00-12:00	0.017	5.3
12:00-13:00	0.021	6.6
13:00-14:00	0.020	6.2
14:00-15:00	0.031	9.7
15:00-16:00	0.026	8.1
16:00-17:00	0.026	8.1
17:00-18:00	0.016	5.0
18:00-19:00	0.005	1.6
19:00-20:00	0.002	0.6
20:00-21:00	0.004	1.2
21:00-22:00		
22:00-23:00		
23:00-24:00		

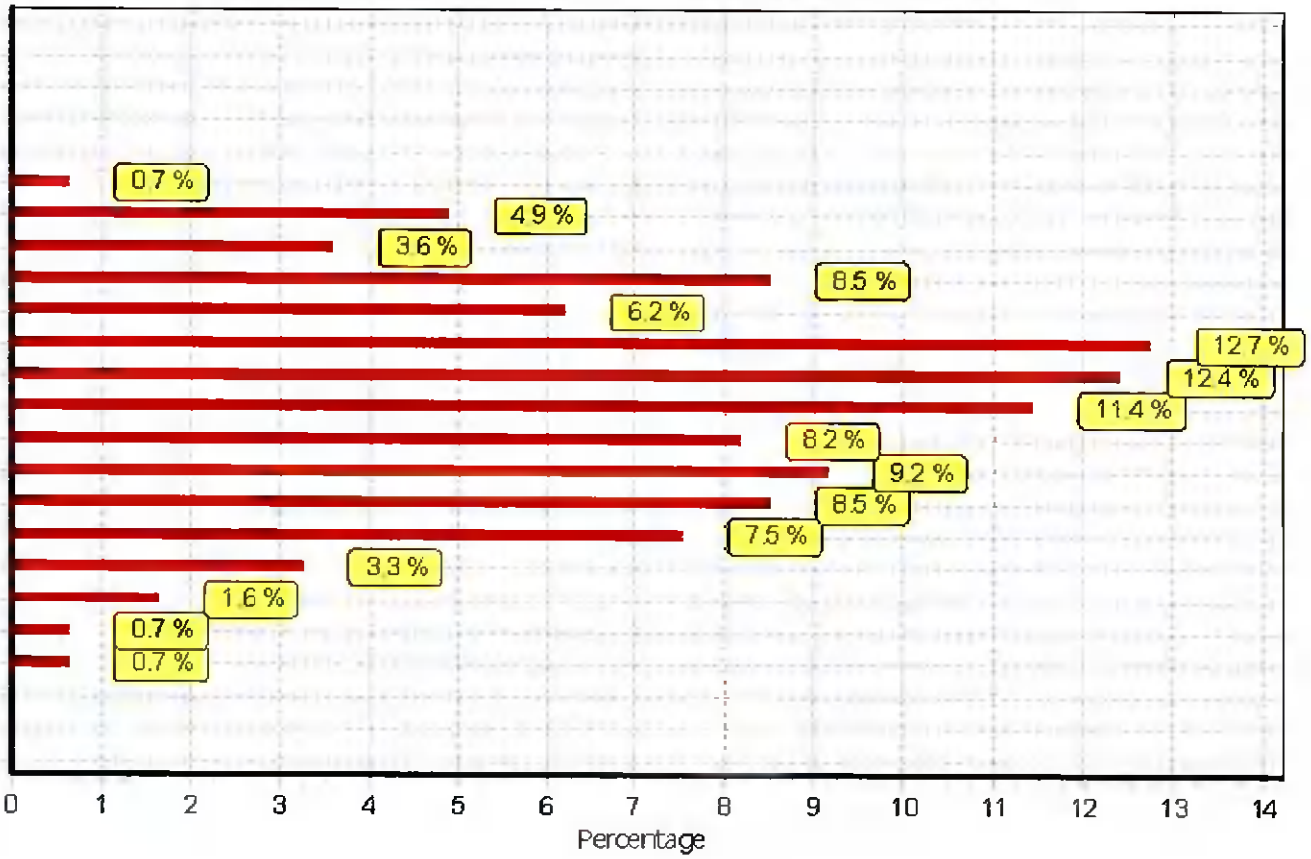
TRIP RATE GRAPH - ARRIVALS 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) LGVS



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) LGVS

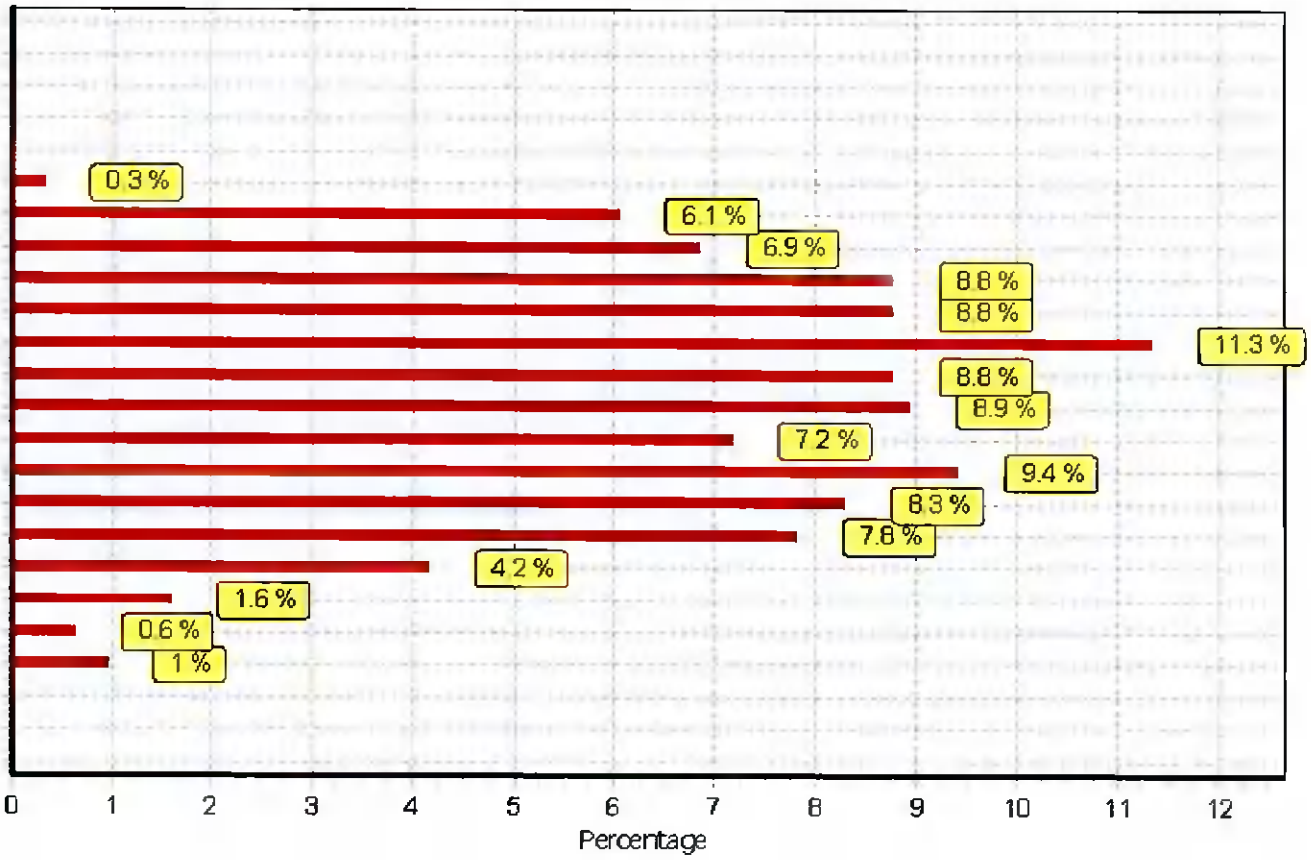
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.002	0.7
06:00-07:00	0.015	4.9
07:00-08:00	0.011	3.6
08:00-09:00	0.026	8.5
09:00-10:00	0.019	6.2
10:00-11:00	0.039	12.7
11:00-12:00	0.038	12.4
12:00-13:00	0.035	11.4
13:00-14:00	0.025	8.2
14:00-15:00	0.028	9.2
15:00-16:00	0.026	8.5
16:00-17:00	0.023	7.5
17:00-18:00	0.010	3.3
18:00-19:00	0.005	1.6
19:00-20:00	0.002	0.7
20:00-21:00	0.002	0.7
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) LGVS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.002	0.3
06:00-07:00	0.038	6.1
07:00-08:00	0.043	6.9
08:00-09:00	0.055	8.8
09:00-10:00	0.055	8.8
10:00-11:00	0.071	11.3
11:00-12:00	0.055	8.8
12:00-13:00	0.056	8.9
13:00-14:00	0.045	7.2
14:00-15:00	0.059	9.4
15:00-16:00	0.052	8.3
16:00-17:00	0.049	7.8
17:00-18:00	0.026	4.2
18:00-19:00	0.010	1.6
19:00-20:00	0.004	0.6
20:00-21:00	0.006	1.0
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

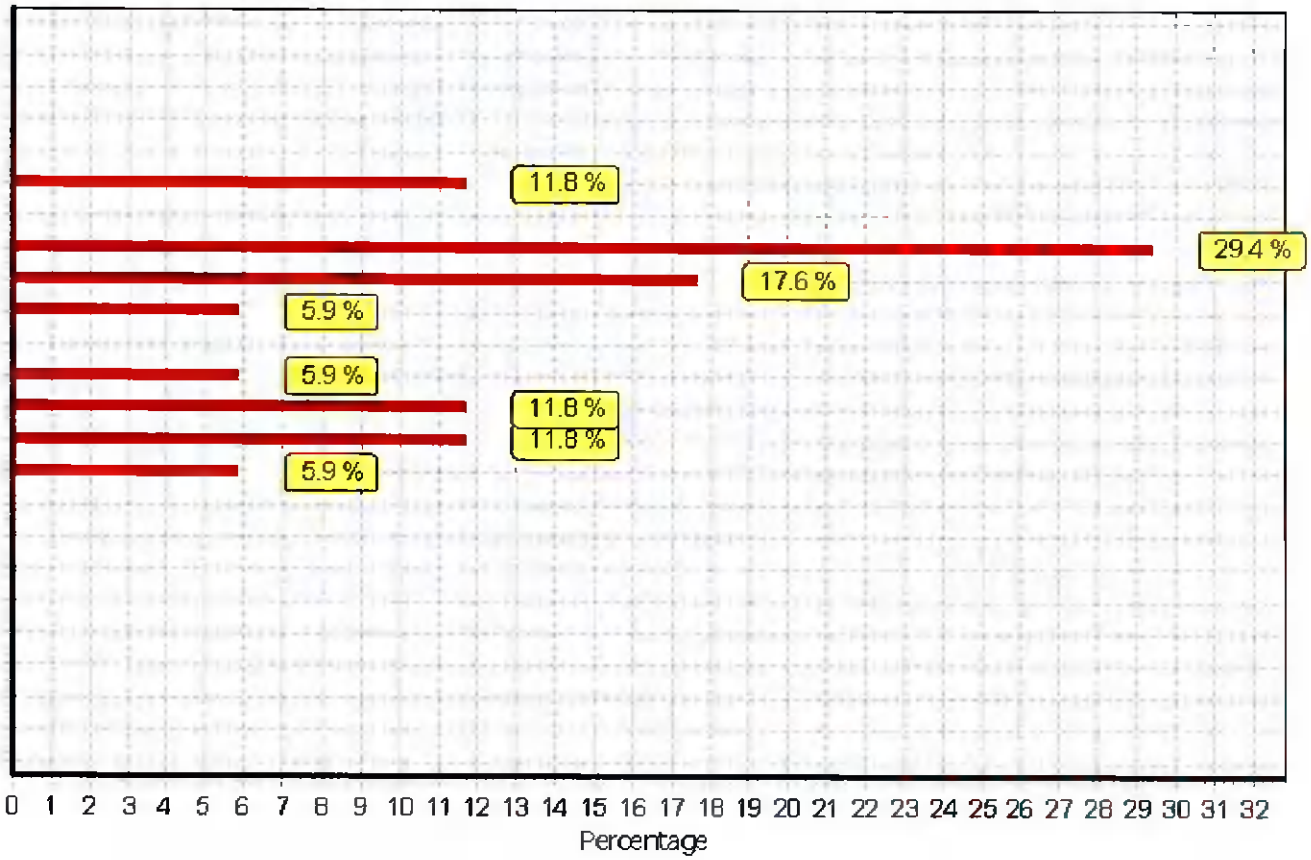
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	7	7694	0.002	7	7694	0.000	7	7694	0.002
05:30 - 06:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
06:00 - 06:30	8	7337	0.000	8	7337	0.000	8	7337	0.000
06:30 - 07:00	8	7337	0.000	8	7337	0.000	8	7337	0.000
07:00 - 07:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
07:30 - 08:00	**16**	**8166**	**0.005**	16	8166	0.001	**16**	**8166**	**0.006**
08:00 - 08:30	16	8166	0.002	16	8166	0.000	16	8166	0.002
08:30 - 09:00	16	8166	0.001	16	8166	0.000	16	8166	0.001
09:00 - 09:30	16	8166	0.001	16	8166	0.000	16	8166	0.001
09:30 - 10:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
10:00 - 10:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
10:30 - 11:00	16	8166	0.000	16	8166	0.001	16	8166	0.001
11:00 - 11:30	16	8166	0.001	16	8166	0.000	16	8166	0.001
11:30 - 12:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
12:00 - 12:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
12:30 - 13:00	16	8166	0.002	16	8166	0.000	16	8166	0.002
13:00 - 13:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
13:30 - 14:00	16	8166	0.002	16	8166	0.001	16	8166	0.003
14:00 - 14:30	16	8166	0.001	16	8166	0.000	16	8166	0.001
14:30 - 15:00	16	8166	0.000	16	8166	0.001	16	8166	0.001
15:00 - 15:30	16	8166	0.000	16	8166	0.000	16	8166	0.000
15:30 - 16:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
16:00 - 16:30	16	8166	0.000	16	8166	0.001	16	8166	0.001
16:30 - 17:00	16	8166	0.000	**16**	**8166**	**0.005**	16	8166	0.005
17:00 - 17:30	16	8166	0.000	16	8166	0.002	16	8166	0.002
17:30 - 18:00	16	8166	0.000	16	8166	0.000	16	8166	0.000
18:00 - 18:30	15	8610	0.000	15	8610	0.000	15	8610	0.000
18:30 - 19:00	15	8610	0.000	15	8610	0.000	15	8610	0.000
19:00 - 19:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
19:30 - 20:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
20:00 - 20:30	7	7694	0.000	7	7694	0.000	7	7694	0.000
20:30 - 21:00	7	7694	0.000	7	7694	0.000	7	7694	0.000
21:00 - 21:30	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:30 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.017			0.012			0.029

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

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

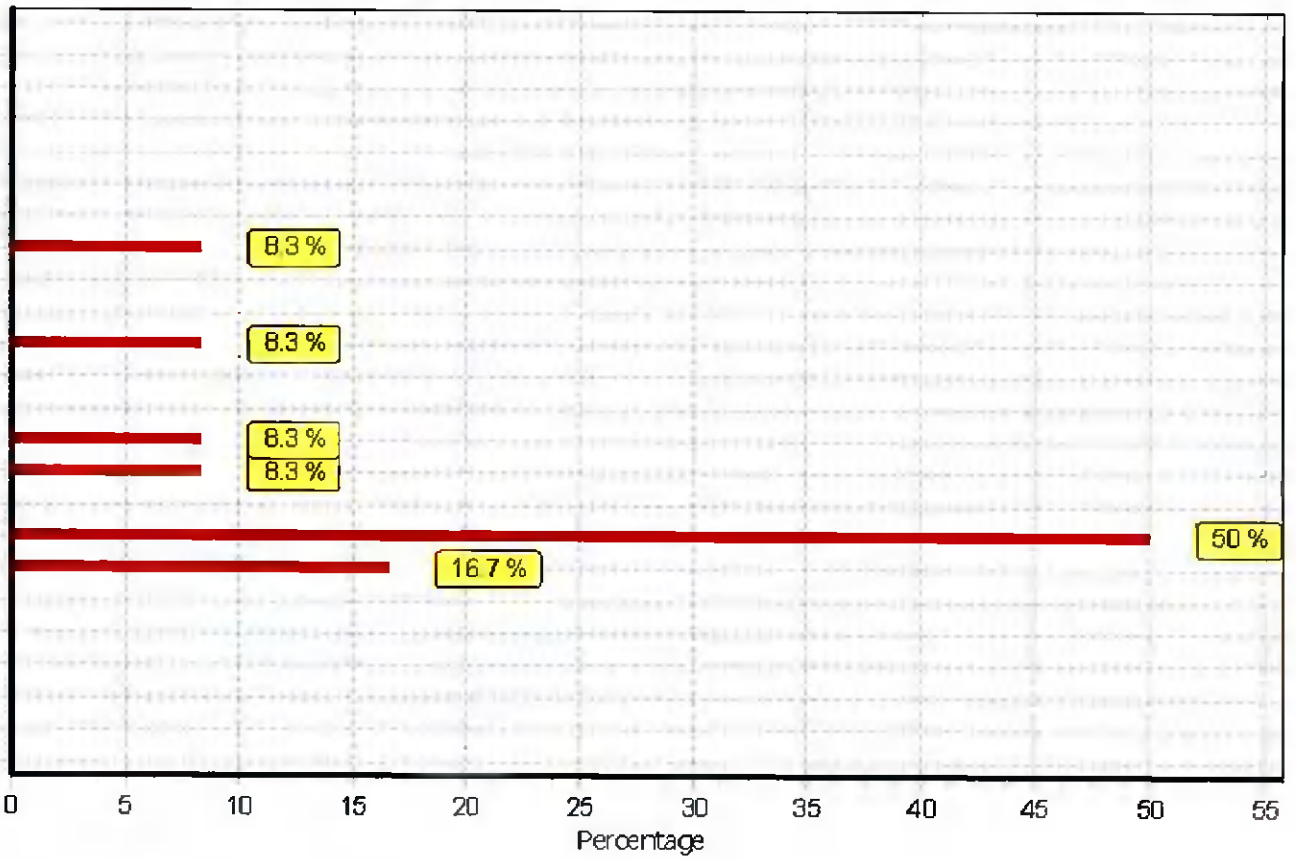
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.002	11.8
06:00-07:00		
07:00-08:00	0.005	29.4
08:00-09:00	0.003	17.6
09:00-10:00	0.001	5.9
10:00-11:00		
11:00-12:00	0.001	5.9
12:00-13:00	0.002	11.8
13:00-14:00	0.002	11.8
14:00-15:00	0.001	5.9
15:00-16:00		
16:00-17:00		
17:00-18:00		
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		

TRIP RATE GRAPH - ARRIVALS 02 - EMPLOYMENT F - WAREHOUSING (COMMERCIAL) MOTOR CYCLES



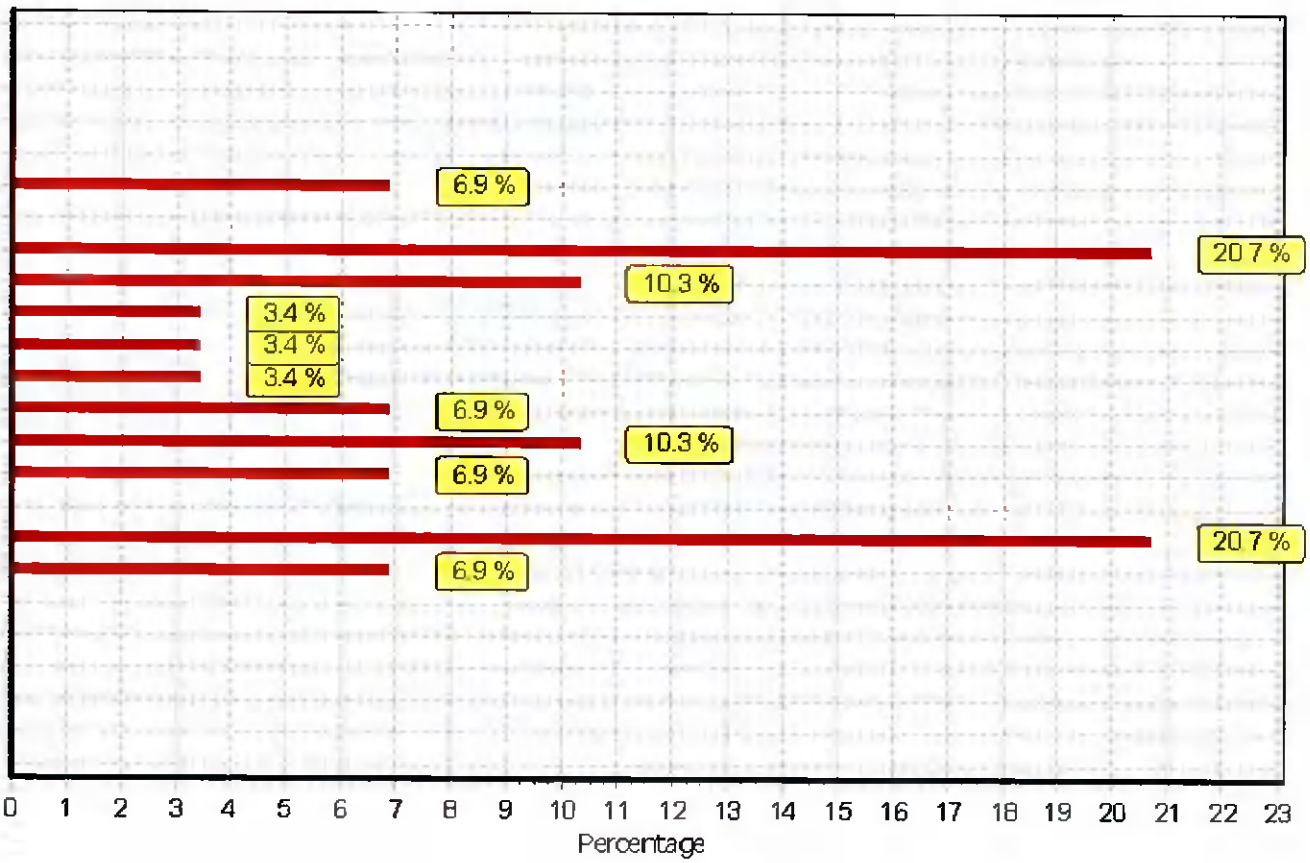
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.001	8.3
08:00-09:00		
09:00-10:00		
10:00-11:00	0.001	8.3
11:00-12:00		
12:00-13:00		
13:00-14:00	0.001	8.3
14:00-15:00	0.001	8.3
15:00-16:00		
16:00-17:00	0.006	50.0
17:00-18:00	0.002	16.7
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.002	6.9
06:00-07:00		
07:00-08:00	0.006	20.7
08:00-09:00	0.003	10.3
09:00-10:00	0.001	3.4
10:00-11:00	0.001	3.4
11:00-12:00	0.001	3.4
12:00-13:00	0.002	6.9
13:00-14:00	0.003	10.3
14:00-15:00	0.002	6.9
15:00-16:00		
16:00-17:00	0.006	20.7
17:00-18:00	0.002	6.9
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Appendix C: PICADY Output Files

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.0.4211 []

Filename: Junction 2. Ballymount Ave _ Site Entrance_Reva A.j9
Path: G:\2021\p210175\calcs\picady
Report generation date: 25/03/2022 12:40:57

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2028 ERM							
Stream B-AC	0.1	7.79	0.05	A	0.1	6.70	0.06	A
Stream C-AB	0.0	6.45	0.01	A	0.0	5.63	0.01	A
Stream C-A								
Stream A-B								
Stream A-C								
	2043 ERM							
Stream B-AC	0.0	7.14	0.05	A	0.1	7.30	0.06	A
Stream C-AB	0.0	6.00	0.01	A	0.0	5.91	0.01	A
Stream C-A								
Stream A-B								
Stream A-C								

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	15/03/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\kellysh
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
2028 ERM	AM	ONE HOUR	07:45	09:15	15	✓
2028 ERM	PM	ONE HOUR	16:45	18:15	15	✓
2043 ERM	AM	ONE HOUR	07:45	09:15	15	✓
2043 ERM	PM	ONE HOUR	16:45	18:15	15	✓

2028 ERM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Ballymount Ave		Major
B	Site Entrance		Minor
C	Ballymount Ave		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			200.0	✓	40.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.00	215	159

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	696.504	0.105	0.265	0.167	0.378
1	B-C	796.520	0.101	0.255	-	-
1	C-B	689.785	0.221	0.221	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments

Streams may be combined, in which case capacity will be adjusted

Values are shown for the first time segment only; they may differ for subsequent time segments

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2028 ERM	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	523.00	100.000
B		ONE HOUR	✓	22.00	100.000
C		ONE HOUR	✓	442.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	29.000	494.000
	B	19.000	0.000	3.000
	C	438.000	4.000	0.000

Proportions

		To		
		A	B	C
From	A	0.00	0.06	0.94
	B	0.86	0.00	0.14
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle proportion

From \ To	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Average PCU Per Veh

From \ To	A	B	C
A	1.000	1.000	1.000
B	1.000	1.000	1.000
C	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.79	0.1	A	20.19	30.28
C-AB	0.01	6.45	0.0	A	3.67	5.51
C-A					401.92	602.87
A-B					26.61	39.92
A-C					453.30	679.95

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	16.56	16.56	4.14	0.00	556.99	0.030	16.44	0.0	0.0	6.657	A
C-AB	3.01	3.01	0.75	0.00	602.87	0.005	2.99	0.0	0.0	6.000	A
C-A	329.75	329.75	82.44	0.00			329.75				
A-B	21.83	21.83	5.46	0.00			21.83				
A-C	371.91	371.91	92.98	0.00			371.91				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	19.78	19.78	4.94	0.00	527.30	0.038	19.74	0.0	0.0	7.092	A
C-AB	3.60	3.60	0.90	0.00	586.00	0.006	3.59	0.0	0.0	6.180	A
C-A	393.75	393.75	98.44	0.00			393.75				
A-B	26.07	26.07	6.52	0.00			26.07				
A-C	444.10	444.10	111.02	0.00			444.10				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.22	24.22	6.06	0.00	486.07	0.050	24.17	0.0	0.1	7.793	A
C-AB	4.40	4.40	1.10	0.00	562.67	0.008	4.40	0.0	0.0	6.447	A
C-A	482.25	482.25	120.56	0.00			482.25				
A-B	31.93	31.93	7.98	0.00			31.93				
A-C	543.90	543.90	135.98	0.00			543.90				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.22	24.22	6.06	0.00	486.07	0.050	24.22	0.1	0.1	7.794	A
C-AB	4.40	4.40	1.10	0.00	562.67	0.008	4.40	0.0	0.0	6.447	A
C-A	482.25	482.25	120.56	0.00			482.25				
A-B	31.93	31.93	7.98	0.00			31.93				
A-C	543.90	543.90	135.98	0.00			543.90				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	19.78	19.78	4.94	0.00	527.29	0.038	19.83	0.1	0.0	7.096	A
C-AB	3.60	3.60	0.90	0.00	586.00	0.006	3.60	0.0	0.0	6.183	A
C-A	393.75	393.75	98.44	0.00			393.75				
A-B	26.07	26.07	6.52	0.00			26.07				
A-C	444.10	444.10	111.02	0.00			444.10				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	16.56	16.56	4.14	0.00	556.99	0.030	16.60	0.0	0.0	6.664	A
C-AB	3.01	3.01	0.75	0.00	602.87	0.005	3.02	0.0	0.0	6.003	A
C-A	329.75	329.75	82.44	0.00			329.75				
A-B	21.83	21.83	5.46	0.00			21.83				
A-C	371.91	371.91	92.98	0.00			371.91				

2028 ERM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.29	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2028 ERM	PM	ONE HOUR	16:45	18.15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	193.00	100.000
B		ONE HOUR	✓	29.00	100.000
C		ONE HOUR	✓	517.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	20.000	173.000
	B	25.000	0.000	4.000
	C	514.000	3.000	0.000

Proportions

		To		
		A	B	C
From	A	0.00	0.10	0.90
	B	0.86	0.00	0.14
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	6.70	0.1	A	26.61	39.92
C-AB	0.01	5.63	0.0	A	2.75	4.13
C-A					471.66	707.48
A-B					18.35	27.53
A-C					158.75	238.12

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	21.83	21.83	5.46	0.00	613.62	0.036	21.69	0.0	0.0	6.080	A
C-AB	2.26	2.26	0.56	0.00	657.71	0.003	2.24	0.0	0.0	5.491	A
C-A	386.97	386.97	96.74	0.00			386.97				
A-B	15.06	15.06	3.76	0.00			15.06				
A-C	130.24	130.24	32.56	0.00			130.24				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	26.07	26.07	6.52	0.00	594.94	0.044	26.03	0.0	0.0	6.327	A
C-AB	2.70	2.70	0.67	0.00	651.48	0.004	2.69	0.0	0.0	5.548	A
C-A	462.08	462.08	115.52	0.00			462.08				
A-B	17.98	17.98	4.49	0.00			17.98				
A-C	155.52	155.52	38.88	0.00			155.52				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	31.93	31.93	7.98	0.00	568.99	0.056	31.88	0.0	0.1	6.702	A
C-AB	3.30	3.30	0.83	0.00	642.88	0.005	3.30	0.0	0.0	5.628	A
C-A	565.92	565.92	141.48	0.00			565.92				
A-B	22.02	22.02	5.51	0.00			22.02				
A-C	190.48	190.48	47.62	0.00			190.48				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	31.93	31.93	7.98	0.00	568.99	0.056	31.93	0.1	0.1	6.702	A
C-AB	3.30	3.30	0.83	0.00	642.88	0.005	3.30	0.0	0.0	5.628	A
C-A	565.92	565.92	141.48	0.00			565.92				
A-B	22.02	22.02	5.51	0.00			22.02				
A-C	190.48	190.48	47.62	0.00			190.48				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	26.07	26.07	6.52	0.00	594.93	0.044	26.12	0.1	0.0	6.328	A
C-AB	2.70	2.70	0.67	0.00	651.48	0.004	2.70	0.0	0.0	5.548	A
C-A	462.08	462.08	115.52	0.00			462.08				
A-B	17.98	17.98	4.49	0.00			17.98				
A-C	155.52	155.52	38.88	0.00			155.52				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	21.83	21.83	5.46	0.00	613.61	0.036	21.87	0.0	0.0	6.085	A
C-AB	2.26	2.26	0.56	0.00	657.71	0.003	2.26	0.0	0.0	5.491	A
C-A	386.97	386.97	96.74	0.00			386.97				
A-B	15.06	15.06	3.76	0.00			15.06				
A-C	130.24	130.24	32.56	0.00			130.24				

2043 ERM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.21	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2043 ERM	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	353.00	100.000
B		ONE HOUR	✓	22.00	100.000
C		ONE HOUR	✓	488.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	29.000	324.000
	B	19.000	0.000	3.000
	C	484.000	4.000	0.000

Proportions

		To		
		A	B	C
From	A	0.00	0.08	0.92
	B	0.86	0.00	0.14
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.14	0.0	A	20.19	30.28
C-AB	0.01	6.00	0.0	A	3.67	5.51
C-A					444.13	666.19
A-B					26.61	39.92
A-C					297.31	445.96

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	16.56	16.56	4.14	0.00	585.69	0.028	16.45	0.0	0.0	6.322	A
C-AB	3.01	3.01	0.75	0.00	631.12	0.005	2.99	0.0	0.0	5.730	A
C-A	364.38	364.38	91.10	0.00			364.38				
A-B	21.83	21.83	5.46	0.00			21.83				
A-C	243.92	243.92	60.98	0.00			243.92				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	19.78	19.78	4.94	0.00	561.59	0.035	19.75	0.0	0.0	6.643	A
C-AB	3.60	3.60	0.90	0.00	619.73	0.006	3.59	0.0	0.0	5.842	A
C-A	435.11	435.11	108.78	0.00			435.11				
A-B	26.07	26.07	6.52	0.00			26.07				
A-C	291.27	291.27	72.82	0.00			291.27				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.22	24.22	6.06	0.00	528.12	0.046	24.18	0.0	0.0	7.143	A
C-AB	4.40	4.40	1.10	0.00	603.99	0.007	4.40	0.0	0.0	6.003	A
C-A	532.89	532.89	133.22	0.00			532.89				
A-B	31.93	31.93	7.98	0.00			31.93				
A-C	356.73	356.73	89.18	0.00			356.73				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.22	24.22	6.06	0.00	528.12	0.046	24.22	0.0	0.0	7.143	A
C-AB	4.40	4.40	1.10	0.00	603.99	0.007	4.40	0.0	0.0	6.003	A
C-A	532.89	532.89	133.22	0.00			532.89				
A-B	31.93	31.93	7.98	0.00			31.93				
A-C	356.73	356.73	89.18	0.00			356.73				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	19.78	19.78	4.94	0.00	561.58	0.035	19.82	0.0	0.0	6.647	A
C-AB	3.60	3.60	0.90	0.00	619.73	0.006	3.60	0.0	0.0	5.844	A
C-A	435.11	435.11	108.78	0.00			435.11				
A-B	26.07	26.07	6.52	0.00			26.07				
A-C	291.27	291.27	72.82	0.00			291.27				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	16.56	16.56	4.14	0.00	585.68	0.028	16.59	0.0	0.0	6.327	A
C-AB	3.01	3.01	0.75	0.00	631.12	0.005	3.02	0.0	0.0	5.730	A
C-A	364.38	364.38	91.10	0.00			364.38				
A-B	21.83	21.83	5.46	0.00			21.83				
A-C	243.92	243.92	60.98	0.00			243.92				

2043 ERM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.25	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2043 ERM	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	318.00	100.000
B		ONE HOUR	✓	29.00	100.000
C		ONE HOUR	✓	560.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	20.000	298.000
	B	25.000	0.000	4.000
	C	557.000	3.000	0.000

Proportions

		To		
		A	B	C
From	A	0.00	0.06	0.94
	B	0.86	0.00	0.14
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	7.30	0.1	A	26.61	39.92
C-AB	0.01	5.91	0.0	A	2.75	4.13
C-A					511.11	766.67
A-B					18.35	27.53
A-C					273.45	410.18

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	21.83	21.83	5.46	0.00	583.66	0.037	21.68	0.0	0.0	6.404	A
C-AB	2.26	2.26	0.56	0.00	636.94	0.004	2.24	0.0	0.0	5.671	A
C-A	419.34	419.34	104.83	0.00			419.34				
A-B	15.06	15.06	3.76	0.00			15.06				
A-C	224.35	224.35	56.09	0.00			224.35				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	26.07	26.07	6.52	0.00	559.08	0.047	26.03	0.0	0.0	6.753	A
C-AB	2.70	2.70	0.67	0.00	626.68	0.004	2.69	0.0	0.0	5.768	A
C-A	500.73	500.73	125.18	0.00			500.73				
A-B	17.98	17.98	4.49	0.00			17.98				
A-C	267.90	267.90	66.97	0.00			267.90				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	31.93	31.93	7.98	0.00	524.93	0.061	31.87	0.0	0.1	7.301	A
C-AB	3.30	3.30	0.83	0.00	612.50	0.005	3.30	0.0	0.0	5.908	A
C-A	613.27	613.27	153.32	0.00			613.27				
A-B	22.02	22.02	5.51	0.00			22.02				
A-C	328.10	328.10	82.03	0.00			328.10				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	31.93	31.93	7.98	0.00	524.93	0.061	31.93	0.1	0.1	7.301	A
C-AB	3.30	3.30	0.83	0.00	612.50	0.005	3.30	0.0	0.0	5.908	A
C-A	613.27	613.27	153.32	0.00			613.27				
A-B	22.02	22.02	5.51	0.00			22.02				
A-C	328.10	328.10	82.03	0.00			328.10				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	26.07	26.07	6.52	0.00	559.08	0.047	26.13	0.1	0.0	6.754	A
C-AB	2.70	2.70	0.67	0.00	626.68	0.004	2.70	0.0	0.0	5.771	A
C-A	500.73	500.73	125.18	0.00			500.73				
A-B	17.98	17.98	4.49	0.00			17.98				
A-C	267.90	267.90	66.97	0.00			267.90				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	21.83	21.83	5.46	0.00	583.66	0.037	21.87	0.0	0.0	6.410	A
C-AB	2.26	2.26	0.56	0.00	636.94	0.004	2.26	0.0	0.0	5.671	A
C-A	419.34	419.34	104.83	0.00			419.34				
A-B	15.06	15.06	3.76	0.00			15.06				
A-C	224.35	224.35	56.09	0.00			224.35				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.0.4211 []

Filename: Junction 1. Calmount Road _ Site Entrance __ Rev A.j9
Path: G:\2021\p210175\calcs\picady
Report generation date: 25/03/2022 12:32:13

»2028 ERM, AM
»2028 ERM, PM
»2043 ERM, AM
»2043 ERM, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2028 ERM								
Stream B-AC	0.1	10.90	0.07	B	0.1	6.61	0.05	A
Stream C-AB	0.0	8.23	0.04	A	0.0	5.89	0.02	A
Stream C-A								
Stream A-B								
Stream A-C								
2043 ERM								
Stream B-AC	0.1	11.82	0.07	B	0.1	6.75	0.05	A
Stream C-AB	0.0	8.77	0.04	A	0.0	5.98	0.02	A
Stream C-A								
Stream A-B								
Stream A-C								

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	15/03/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\kellysh
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
2028 ERM	AM	ONE HOUR	07:45	09:15	15	✓
2028 ERM	PM	ONE HOUR	16:45	18:15	15	✓
2043 ERM	AM	ONE HOUR	07:45	09:15	15	✓
2043 ERM	PM	ONE HOUR	16:45	18:15	15	✓

2028 ERM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Calmount Road		Major
B	Site Entrance		Minor
C	Calmount Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Calmount Road	12.00			200.0	✓	20.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Entrance	One lane	3.00	200	200

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	650 008	0.087	0.221	0 139	0 316
1	B-C	749 843	0.085	0.215	-	-
1	C-B	689 785	0.198	0.198	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments

Streams may be combined, in which case capacity will be adjusted

Values are shown for the first time segment only, they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2028 ERM	AM	ONE HOUR	07 45	09 15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2 00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Calmount Road		ONE HOUR	✓	1075.00	100.000
B - Site Entrance		ONE HOUR	✓	22 00	100.000
C - Calmount Road		ONE HOUR	✓	733 00	100 000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0.000	17 000	1058.000
	B - Site Entrance	11 000	0 000	11 000
	C - Calmount Road	716.000	17.000	0.000

Proportions

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0.00	0.02	0 98
	B - Site Entrance	0 50	0 00	0 50
	C - Calmount Road	0 98	0 02	0 00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0	0	0
	B - Site Entrance	0	0	0
	C - Calmount Road	0	0	0

Average PCU Per Veh

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	1.000	1.000	1.000
	B - Site Entrance	1.000	1.000	1.000
	C - Calmount Road	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	10.90	0.1	B	20.19	30.28
C-AB	0.04	8.23	0.0	A	15.60	23.40
C-A					657.01	985.52
A-B					15.60	23.40
A-C					970.84	1456.26

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	16.56	16.56	4.14	0.00	468.30	0.035	16.42	0.0	0.0	7.964	A
C-AB	12.80	12.80	3.20	0.00	529.95	0.024	12.70	0.0	0.0	6.960	A
C-A	539.04	539.04	134.76	0.00			539.04				
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	796.52	796.52	199.13	0.00			796.52				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	19.78	19.78	4.94	0.00	421.54	0.047	19.73	0.0	0.0	8.958	A
C-AB	15.28	15.28	3.82	0.00	498.93	0.031	15.26	0.0	0.0	7.442	A
C-A	643.67	643.67	160.92	0.00			643.67				
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	951.12	951.12	237.78	0.00			951.12				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.22	24.22	6.06	0.00	354.50	0.068	24.13	0.0	0.1	10.894	B
C-AB	18.72	18.72	4.68	0.00	456.03	0.041	18.67	0.0	0.0	8.230	A
C-A	788.33	788.33	197.08	0.00			788.33				
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	1164.88	1164.88	291.22	0.00			1164.88				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.22	24.22	6.06	0.00	354.49	0.068	24.22	0.1	0.1	10.899	B
C-AB	18.72	18.72	4.68	0.00	456.03	0.041	18.72	0.0	0.0	8.231	A
C-A	788.33	788.33	197.08	0.00			788.33				
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	1164.88	1164.88	291.22	0.00			1164.88				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	19.78	19.78	4.94	0.00	421.52	0.047	19.87	0.1	0.0	8.964	A
C-AB	15.28	15.28	3.82	0.00	498.93	0.031	15.33	0.0	0.0	7.443	A
C-A	643.67	643.67	160.92	0.00			643.67				
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	951.12	951.12	237.78	0.00			951.12				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	16.56	16.56	4.14	0.00	468.28	0.035	16.61	0.0	0.0	7.972	A
C-AB	12.80	12.80	3.20	0.00	529.95	0.024	12.83	0.0	0.0	6.963	A
C-A	539.04	539.04	134.76	0.00			539.04				
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	796.52	796.52	199.13	0.00			796.52				

2028 ERM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.30	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2028 ERM	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Calmount Road		ONE HOUR	✓	305.00	100.000
B - Site Entrance		ONE HOUR	✓	28.00	100.000
C - Calmount Road		ONE HOUR	✓	501.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0.000	11.000	294.000
	B - Site Entrance	14.000	0.000	14.000
	C - Calmount Road	490.000	11.000	0.000

Proportions

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0.00	0.04	0.96
	B - Site Entrance	0.50	0.00	0.50
	C - Calmount Road	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0	0	0
	B - Site Entrance	0	0	0
	C - Calmount Road	0	0	0

Average PCU Per Veh

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	1.000	1.000	1.000
	B - Site Entrance	1.000	1.000	1.000
	C - Calmount Road	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	6.61	0.1	A	25.69	38.54
C-AB	0.02	5.89	0.0	A	10.09	15.14
C-A					449.63	674.45
A-B					10.09	15.14
A-C					269.78	404.67

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	21.08	21.08	5.27	0.00	614.36	0.034	20.94	0.0	0.0	6.064	A
C-AB	8.28	8.28	2.07	0.00	644.44	0.013	8.23	0.0	0.0	5.658	A
C-A	368.90	368.90	92.22	0.00			368.90				
A-B	8.28	8.28	2.07	0.00			8.28				
A-C	221.34	221.34	55.33	0.00			221.34				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	25.17	25.17	6.29	0.00	597.96	0.042	25.14	0.0	0.0	6.284	A
C-AB	9.89	9.89	2.47	0.00	635.63	0.016	9.88	0.0	0.0	5.752	A
C-A	440.50	440.50	110.12	0.00			440.50				
A-B	9.89	9.89	2.47	0.00			9.89				
A-C	264.30	264.30	66.07	0.00			264.30				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	30.83	30.83	7.71	0.00	575.01	0.054	30.78	0.0	0.1	6.614	A
C-AB	12.11	12.11	3.03	0.00	623.46	0.019	12.10	0.0	0.0	5.887	A
C-A	539.50	539.50	134.88	0.00			539.50				
A-B	12.11	12.11	3.03	0.00			12.11				
A-C	323.70	323.70	80.93	0.00			323.70				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	30.83	30.83	7.71	0.00	575.01	0.054	30.83	0.1	0.1	6.614	A
C-AB	12.11	12.11	3.03	0.00	623.46	0.019	12.11	0.0	0.0	5.887	A
C-A	539.50	539.50	134.88	0.00			539.50				
A-B	12.11	12.11	3.03	0.00			12.11				
A-C	323.70	323.70	80.93	0.00			323.70				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	25.17	25.17	6.29	0.00	597.96	0.042	25.22	0.1	0.0	6.287	A
C-AB	9.89	9.89	2.47	0.00	635.63	0.016	9.90	0.0	0.0	5.752	A
C-A	440.50	440.50	110.12	0.00			440.50				
A-B	9.89	9.89	2.47	0.00			9.89				
A-C	264.30	264.30	66.07	0.00			264.30				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	21.08	21.08	5.27	0.00	614.35	0.034	21.11	0.0	0.0	6.068	A
C-AB	8.28	8.28	2.07	0.00	644.44	0.013	8.29	0.0	0.0	5.658	A
C-A	368.90	368.90	92.22	0.00			368.90				
A-B	8.28	8.28	2.07	0.00			8.28				
A-C	221.34	221.34	55.33	0.00			221.34				

2043 ERM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.22	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2043 ERM	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Calmount Road		ONE HOUR	✓	1199.00	100.000
B - Site Entrance		ONE HOUR	✓	22.00	100.000
C - Calmount Road		ONE HOUR	✓	680.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0.000	17.000	1182.000
	B - Site Entrance	11.000	0.000	11.000
	C - Calmount Road	663.000	17.000	0.000

Proportions

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0.00	0.01	0.99
	B - Site Entrance	0.50	0.00	0.50
	C - Calmount Road	0.98	0.03	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0	0	0
	B - Site Entrance	0	0	0
	C - Calmount Road	0	0	0

Average PCU Per Veh

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	1.000	1.000	1.000
	B - Site Entrance	1.000	1.000	1.000
	C - Calmount Road	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	11.82	0.1	B	20.19	30 28
C-AB	0.04	8.77	0.0	A	15 60	23 40
C-A					608 38	912.57
A-B					15.60	23 40
A-C					1084.62	1626 94

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	16.56	16.56	4 14	0 00	451.04	0.037	16.41	0.0	0.0	8.280	A
C-AB	12 80	12.80	3.20	0 00	511.51	0 025	12 70	0.0	0.0	7 214	A
C-A	499 14	499 14	124 79	0 00			499 14				
A-B	12 80	12.80	3.20	0 00			12.80				
A-C	889.87	889.87	222 47	0 00			889.87				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	19 78	19.78	4.94	0 00	400 82	0 049	19.72	0 0	0.1	9.445	A
C-AB	15 28	15.28	3 82	0 00	476 91	0 032	15.25	0 0	0.0	7.798	A
C-A	596 02	596.02	149 01	0.00			596.02				
A-B	15.28	15.28	3 82	0 00			15 28				
A-C	1062.59	1062 59	265 65	0 00			1062 59				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.22	24 22	6.06	0 00	328.72	0.074	24.11	0 1	0.1	11.815	B
C-AB	18.72	18.72	4 68	0 00	429 07	0.044	18.67	0 0	0 0	8 770	A
C-A	729 98	729.98	182 49	0.00			729.98				
A-B	18 72	18 72	4 68	0.00			18 72				
A-C	1301 41	1301 41	325 35	0 00			1301 41				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.22	24.22	6.06	0.00	328.71	0.074	24.22	0.1	0.1	11.822	B
C-AB	18.72	18.72	4.68	0.00	429.07	0.044	18.72	0.0	0.0	8.772	A
C-A	729.98	729.98	182.49	0.00			729.98				
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	1301.41	1301.41	325.35	0.00			1301.41				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	19.78	19.78	4.94	0.00	400.80	0.049	19.88	0.1	0.1	9.453	A
C-AB	15.28	15.28	3.82	0.00	476.91	0.032	15.33	0.0	0.0	7.801	A
C-A	596.02	596.02	149.01	0.00			596.02				
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	1062.59	1062.59	265.65	0.00			1062.59				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	16.56	16.56	4.14	0.00	451.01	0.037	16.62	0.1	0.0	8.288	A
C-AB	12.80	12.80	3.20	0.00	511.51	0.025	12.83	0.0	0.0	7.221	A
C-A	499.14	499.14	124.79	0.00			499.14				
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	889.87	889.87	222.47	0.00			889.87				

2043 ERM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.29	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2043 ERM	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Calmount Road		ONE HOUR	✓	348.00	100.000
B - Site Entrance		ONE HOUR	✓	28.00	100.000
C - Calmount Road		ONE HOUR	✓	504.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0.000	11.000	337.000
	B - Site Entrance	14.000	0.000	14.000
	C - Calmount Road	493.000	11.000	0.000

Proportions

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0.00	0.03	0.97
	B - Site Entrance	0.50	0.00	0.50
	C - Calmount Road	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	0	0	0
	B - Site Entrance	0	0	0
	C - Calmount Road	0	0	0

Average PCU Per Veh

		To		
		A - Calmount Road	B - Site Entrance	C - Calmount Road
From	A - Calmount Road	1.000	1.000	1.000
	B - Site Entrance	1.000	1.000	1.000
	C - Calmount Road	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	6.75	0.1	A	25.69	38.54
C-AB	0.02	5.98	0.0	A	10.09	15.14
C-A					452.39	678.58
A-B					10.09	15.14
A-C					309.24	463.86

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	21.08	21.08	5.27	0.00	606.97	0.035	20.94	0.0	0.0	6.141	A
C-AB	8.28	8.28	2.07	0.00	638.04	0.013	8.23	0.0	0.0	5.715	A
C-A	371.16	371.16	92.79	0.00			371.16				
A-B	8.28	8.28	2.07	0.00			8.28				
A-C	253.71	253.71	63.43	0.00			253.71				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	25.17	25.17	6.29	0.00	589.10	0.043	25.14	0.0	0.0	6.383	A
C-AB	9.89	9.89	2.47	0.00	628.00	0.016	9.88	0.0	0.0	5.823	A
C-A	443.20	443.20	110.80	0.00			443.20				
A-B	9.89	9.89	2.47	0.00			9.89				
A-C	302.96	302.96	75.74	0.00			302.96				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	30.83	30.83	7.71	0.00	564.09	0.055	30.78	0.0	0.1	6.750	A
C-AB	12.11	12.11	3.03	0.00	614.11	0.020	12.09	0.0	0.0	5.979	A
C-A	542.80	542.80	135.70	0.00			542.80				
A-B	12.11	12.11	3.03	0.00			12.11				
A-C	371.04	371.04	92.76	0.00			371.04				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	30.83	30.83	7.71	0.00	564.09	0.055	30.83	0.1	0.1	6.750	A
C-AB	12.11	12.11	3.03	0.00	614.11	0.020	12.11	0.0	0.0	5.979	A
C-A	542.80	542.80	135.70	0.00			542.80				
A-B	12.11	12.11	3.03	0.00			12.11				
A-C	371.04	371.04	92.76	0.00			371.04				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	25.17	25.17	6.29	0.00	589.10	0.043	25.22	0.1	0.0	6.384	A
C-AB	9.89	9.89	2.47	0.00	628.00	0.016	9.90	0.0	0.0	5.823	A
C-A	443.20	443.20	110.80	0.00			443.20				
A-B	9.89	9.89	2.47	0.00			9.89				
A-C	302.96	302.96	75.74	0.00			302.96				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	21.08	21.08	5.27	0.00	606.96	0.035	21.11	0.0	0.0	6.147	A
C-AB	8.28	8.28	2.07	0.00	638.04	0.013	8.29	0.0	0.0	5.718	A
C-A	371.16	371.16	92.79	0.00			371.16				
A-B	8.28	8.28	2.07	0.00			8.28				
A-C	253.71	253.71	63.43	0.00			253.71				

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